The Elsevier DTD 5 Family of XML DTDs

Tag by Tag

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Content and Data Architecture, Elsevier B.V.

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The *Tag by Tag* was created by Elsevier's DTD Development & Maintenance Team, the team responsible for development, maintenance and support of the Elsevier DTDs and XML schemas. Former members of the team have contributed to the current documentation. Comments about the DTDs and their documentation, as well as change requests, can be sent to the above-mentioned address. Change requests will be considered for implementation in a future DTD.

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The Elsevier DTDs, schemas, and a fully clickable PDF file of this documentation are available via http://www.elsevier.com/locate/xml.

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Contents

Chapter 1
Introduction

This is the documentation of the family of Elsevier's DTD 5 family of XML DTDs. This family is centred around the common element pool (CEP). In this version of the documentation, the following members of the family are described:

- the journal article (JA) DTD versions 5.0.1, 5.0.2, 5.1.0, 5.2.0, 5.4.0 and 5.5.0;
- the serials issue (SI) DTD versions 5.1.0, 5.2.0, 5.4.0 and 5.5.0;
- the EHS Book DTD versions 5.1.0 and 5.1.1;
- the Elsevier Book DTD versions 5.2.0, 5.2.1, 5.3.0, 5.3.1, 5.4.0 and 5.5.0;
- the Enhancement Fragment DTD 5.0.0;
- the common element pool (CEP) versions 1.1.0–1.1.6, 1.2.0, 1.4.0 and 1.5.0.

Historical remarks

Elsevier has a long tradition of using SGML (Standard Generalized Markup Language) for its products. In the 1980s, the CAPCAS DTD (Document Type Definition) was created to capture article frontmatters. In 1992, the first DTD for full-length scientific articles was developed [2].

CAP (Computer-Aided Production) started as a project in the 1990s, and is now the regular production method for Elsevier's more than 2000 STM (science, technology and medical) journals and an increasing number of books, including all major reference works and book series. The consequence of CAP is that journal articles and book chapters are produced as full-text XML, and XML drives both the printed journals and books as well as the online versions on Elsevier platforms such as ScienceDirect (http://www.sciencedirect.com), Clinical Key (https://www.clinicalkey.com/) and MDConsult (http://www.mdconsult.com), as well as many other platforms. Abstracts are extracted from the XML and find their way to destinations such as Scopus (http://www.scopus.com) and PubMed (http://www.ncbi.nlm.nih.gov).

Large-scale implementation of the "SGML-first workflow" began with the release of the full-length article DTD 3.0 in November 1995 and continued with the implementation of DTD 4.1, released in November 1997. Updates followed in February 2000 (DTD 4.2) and January and March 2001 (DTD 4.3). As from June 2005, SGML for journal articles was replaced by XML.

The DTDs 4.1–4.3 were described in the previous edition of the *Tag by Tag* [5].

DTD 5.0

The next generation of DTDs are XML DTDs. These were developed in 2001 and 2002. The business reasons for developing a new family of DTDs were as follows.

- The DTDs should cover all types of content, not just journal articles, but also book content, secondary publishing content, etc. They should be accompanied by new transport formats in the form of W3C schemas.
- The DTDs should be in XML.
- The DTDs should adopt Unicode. Unicode has become the standard for character sets. In the STIX project, Elsevier participated in order to ensure that the characters in the Elsevier Grid were represented in Unicode, although the chemical symbols were left out.
- The DTDs should incorporate MathML. The previous DTDs possessed their own, bespoke fragment for mathematical formulae. Some modifications were needed.
- The DTDs should incorporate CALS tables. CALS tables are widely used in other DTDs and software components for it are available. We have chosen the OASIS Exchange Format, and "extended CALS" tables had to be developed so that all tables occurring in STM articles can be captured.
- The DTDs should follow other XML standards. Where possible, and deemed useful, we have adopted the XLink standard, and we have used standard attribute names such as `xml:lang`.
- The DTDs should be more restrictive (in other words, more precise). The DTD has traditionally been very loose, meaning that it allowed constructs such as tables within footnotes within the first name of an author. Such constructs were prevented by semantic rules, enforced by the SGML quality control tools.

Adopting common international standards has not been without problems. Unicode contains a wealth of symbols, but at the time of introduction of the DTD, it lacked a number of symbols such as the chemical symbols present in the Elsevier Grid. MathML does not allow any parametrization. In particular, text portions appearing in displayed formulae cannot be structured — they must be plain characters. CALS tables turned out to be too poor for all varieties of tables encountered in scientific articles. Our desire to retain an "SGML/XML-First" workflow, i.e., a workflow in which the SGML/XML file is used to create all the products, be it print or electronic (see below), necessitated the introduction of table extensions. The fact that the CALS table model has no provision for namespaces complicated matters. In all these cases we were forced to modify the standards, with the risk of losing the benefits of adopting those standards.

The name "full-length article DTD" has been replaced by the more accurate name "journal article DTD".

In order to maintain a consistent set of XML DTDs, the concept of a *common element pool* was introduced, described in more detail later. The individual DTDs make use of this pool.

Additionally, a distinction is made between *input* and *output* DTDs, where "input" and "output" relate to Elsevier's Electronic Warehouse. The input DTD is geared towards supplying XML documents, whereas the output DTD facilitates rendering using stylesheets — the latter features, for instance, information about height and width of figures.

The project to create and implement the DTD 5 family of DTDs was called "Hawaii 5.0".

How to read this documentation

This documentation is not intended as an introduction into XML. It is assumed that the reader is familiar with XML terminology, and can read XML fragments.

This documentation alone is not sufficient to describe electronic deliveries to and from Elsevier. It should be read together with

- the Guide for MFC activities, containing copy-edit instructions;
- the Typographic Standardization and the journals' typesetting instructions, containing the default rendering of the SGML/XML files on paper;
- Electronic Warehouse input and output specifications, detailing the structure of electronic datasets.

CAP, CAPLite, CAPLitePlus

A CAP delivery of an item contains a PDF file (Portable Document Format from Adobe) and an XML file capturing the full item as well as all external files ("assets") referred to from the XML file.

For some types of content, e.g. camera-ready journals, delivery of full-article XML is not a viable alternative. For these types of content, the full-article PDF file is required, but only the head and the tail are captured in XML (the definition of "head" and "tail" are given in later chapters). In total, four varieties of XML capturing are distinguished:

- CONTENTS-ENTRY-ONLY. Only the title and authors are captured, also known as "ultralight" deliveries.
- HEAD-ONLY. Only the head is captured, also known as "CAPLite" deliveries.
- HEAD-AND-TAIL. Only the head and the tail are captured, also known as "CAPLitePlus" deliveries.
- Full CAP: the whole article is captured.

The DTDs support these different "XML manifestations", and they are also dealt with in this documentation. Fortunately, these manifestations limit themselves to a small number of publications.

There is a difference between a HEAD-ONLY document and a full CAP document that only contains a head. In the latter case, one can be sure that the document is nothing more than the head. In the former case a body and a tail may or may not have been present. Interpreting the XML file and concluding the file is HEAD-ONLY is therefore wrong. It must be concluded from the manifestation type indicated by the dataset description.

SGML/XML First

The core principle of the CAP workflow has always been "SGML/XML First". This means that all products, be it online or in print, are derived from the same source SGML/XML file. The PDF files used for print are as much derived from the XML as the online product.

If one would define XML First as "Give a valid XML file to any supplier, then each supplier will produce the same PDF file", one can say that XML First is achieved for the majority of journal titles. For some nonstandard titles, and for some book projects, the layout requirements are so important that full compliance to the XML First Principle is not always possible.

For PreCAP, where printed journal issues are scanned and delivered electronically, the principle obviously does not apply.

Chapter 2
Technical aspects

This chapter contains technical details of the Elsevier DTD family and the XML files that are structured according to these DTDs.

- The first section, The setup of the DTD family (p. 8), describes the general set-up of the DTD 5.0 family, with several DTDs calling in the common element pool, which in turn uses the MathML and CALS DTDs.
- The second section, The XML files (p. 12), explains general rules for each XML file, such as its UTF-8 encoding and whitespace rules.
- Each XML file structured according to one of the Elsevier DTDs begins with a doctype declaration and the declaration of external entities, if any. This is described in the third section, Entities and the DOCTYPE declaration (p. 14).
- The fourth section, The DTD version of an XML file and catalogs (p. 16), stresses that the authoritative version of the DTD with which an XML file is structured is found using the public identifier in the doctype declaration.
- Extensive use of namespaces has been made. This is detailed in the fifth section, Namespaces in the XML file (p. 18).
- The Unicode standard misses some crucial symbols that are used in Elsevier's XML files. The additional glyphs are listed in the sixth section, Elsevier's additional glyphs (p. 19).
- MathML formulae and extended CALS tables are accompanied by a graphical representation, called a strip-in. General rules for strip-ins are described in the final section of this chapter, strip-ins (p. 23).

The setup of the DTD family

This section describes the setup of the DTDs, the common element pool and the corresponding namespaces.

In order to manage a family of XML DTDs, a modular approach was adopted. The DTDs belonging to the DTD 5 family use a common element pool (CEP), consisting of elements shared by various DTDs. In turn, the common element pool includes other DTD fragments, e.g. MathML and CALS tables.

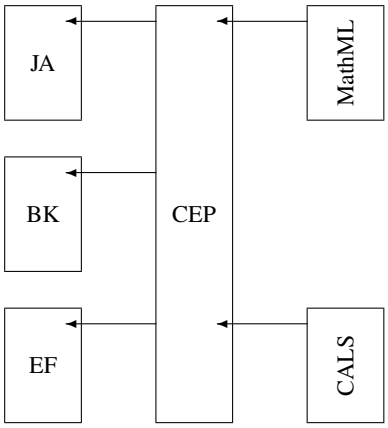

Figure 1: Modular structure of the DTDs

As a result, the individual DTDs are mostly fairly small; they describe the top-level structure of the content. Some DTDs are different by nature, such as the serials issue (SI) DTD and the Elsevier Book (BK) DTD, and therefore use fewer common elements.

Namespaces

Even though DTDs, unlike, e.g., XML schemas, offer limited support for namespaces, these have been introduced in the DTD 5 family, and these play a role when processing files using namespace-aware software. For instance, XSLT stylesheets are aware of the namespace and unexpected results can be obtained when the namespace is not taken care of. The namespaces are named using URIs — these are abstract names not pointing to any page on the Elsevier corporate website. The following namespaces are the namespaces used in the DTD 5 family.

Namespace identifier	Elements
http://www.elsevier.com/xml/ja/dtd	JA DTD
http://www.elsevier.com/xml/si/dtd	SI DTD
http://www.elsevier.com/xml/ehs-book/dtd	EHS Books
http://www.elsevier.com/xml/bk/dtd	Elsevier Books
http://www.elsevier.com/xml/ef/dtd	Enhancement Fragment DTD
http://www.elsevier.com/xml/common/dtd	Core CEP
http://www.elsevier.com/xml/common/struct-aff/dtd	Structured affiliations
http://www.elsevier.com/xml/common/struct-bib/dtd	Structured references
http://www.elsevier.com/xml/common/table/dtd	CALS extensions
http://www.elsevier.com/xml/common/cals/dtd	OASIS CALS
http://www.w3.org/1999/xlink	XLink
http://www.w3.org/1998/Math/MathML	MathML

The namespaces existing within the DTD and the common element pool are declared in the top-level element. The MathML namespace is declared in the MathML Qualified Names Module.

The convention is adopted that the elements indigenous to the DTD belong to the default namespace. Therefore within the family of DTDs two different elements with the same name can exist. Namespace-aware processors will treat each variant differently.

The other elements are explicitly prefixed in the DTD: all elements in the common element pool have been given a prefix `ce:` or, for elements for structured bibliographic references, `sb:`, or, for elements for structured affiliations, `sa:`, or `tb:` for elements that extend the CALS table model. The MathML elements have been assigned a prefix `mml:`.

An unfortunate exception is formed by the elements in the CALS table fragment. Since that fragment lacks the option to declare a namespace prefix, they all have no prefix, even though they belong to the common element pool. In order to avoid that XML processors treat these elements as belonging to the default namespace of the DTD, the element `ce:table` resets the default namespace to the CALS namespace. The element `entry` resets the default namespace to that of the common element pool.

More details can be found in the section Namespaces in the XML file (p. 18).

MathML, CALS

The common element pool pulls in MathML and CALS fragments. It should be noted that it is important to use for these fragments the files belonging to the common element pool distribution, rather than files found elsewhere. These files contain the correct version, corresponding to the Public Identifiers defined in the common element pool.

Doctypes

In order to make the DTDs more precise, they may contain more than one top-level element, the *doctype*. Other documentation gives instructions about when a certain doctype is appropriate. For instance, `article` and `book-review` are doctypes defined by the journal article DTD (JA DTD). A full-length article begins as follows:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE article
  PUBLIC "-//ES//DTD journal article DTD version 5.6.0//EN//XML"
  "art560.dtd" []>
<article docsubtype="fla">
```

whereas a book review begins thus:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE book-review
  PUBLIC "-//ES//DTD journal article DTD version 5.6.0//EN//XML"
  "art560.dtd" []>
<book-review docsubtype="brv">
```

Similarly, the books DTDs contain doctypes (top-level elements) for the chapters, the index, the glossary, and the book "hub".

Version numbering

It is likely that development of the individual DTDs will require changes to the common element pool. As a consequence, it is likely that different versions of the common element pool will be in use at any one time. For instance, the book DTD might need version 1.2 of the common element pool, while the journal article DTD does not need an update and continues to use the common element pool version 1.1.

The correct version number of the DTD is found in the public identifier of the DTD. (See the section The DTD version number and XML catalogs, p. 16.) A DTD change that results in a change of the second or third digit will always be a backward compatible one.

In case of a change to the third digit, note that the `version` attributes of the top-level elements do not contain the third digit. Therefore, a file structured according to version 5.2.0 will still parse with version 5.2.1 without any change to the XML file. The only thing an application needs to do is to change the catalog (p. 14) in such a way that the public identifier of the 5.2.0 DTD points to the 5.2.1 file.

Backward compatibility and downgradability

After a DTD has gone into production, limitations of backward compatibility and downgradability are put on the DTDs.

Backward compatibility means that applications that can handle documents conforming to a certain version, can also handle documents conforming to a previous version.

Downgradability means that applications that cannot yet handle documents conforming to a newer version, can downgrade these documents or receive documents already downgraded.

In complex situation where many thousands of web services, tools and applications use the XML content, it is impossible to lockstep migration with a DTD upgrade. Therefore these limitations are needed.

Making an element optional is backward compatible, but it is only downgradable if a default value can be supplied in case the element is not present in an XML file. For instance, when a `city` element in an address were to be made optional, older documents are still valid with the new DTD, but it is virtually impossible to scan the affiliation and automatically tag the city in order to downgrade the file.

Making an optional element mandatory is downgradable but not backward compatible as applications that only know about the new DTD will expect the potentially missing element in the XML file. However, for applications that could already handle the optional element the added precision that the element will henceforth always be present is only helpful.

Adding a new, optional element is both backward compatible and downgradable. Adding a new, mandatory element is neither backward compatible nor downgradable.

Only first-digit changes do not need to be backward compatible or downgradable. The $4.x$ DTDs have existed for 6.5 years and the family of $5.x$ DTDs will be with us for many years as well.

The XML file

This section describes various rules about the XML files themselves.

Valid files

Obviously, the XML file must be a valid XML instance. A consequence is that the file is well-formed: that it contains entities properly closed with a semi-colon, and that the < and & characters are only used as XML markup. The file must begin with the XML version declaration including the UTF-8 encoding statement

```
<?xml version="1.0" encoding="UTF-8" ?>
```

Nothing may appear before that statement, between that statement and the DOCTYPE declaration, and after the end tag of the top-level element.

The XML file may not contain XML processing instructions (other than the XML version declaration) or XML comments.

UTF-8 encoding

Elsevier expects XML files to be delivered in UTF-8 encoding. This encoding, in which each Unicode point is stored as a sequence of one or more bytes, is the only encoding allowed.

In deliveries to Elsevier the native UTF-8 encoding of the Unicode point must be used. Explicit character numbers such as ` ` and entity names of entities belonging to one of the ISO characters pulled in by the MathML DTD must not be used. For MathML symbols in Plane One it is required to use math variants. (Note that DTD 5.6 is delivered with an entity file, used by the MathML DTD, for reasons of backwards compatibility.)

The following code results in three times “é ”:

```
é &eacute; &#x000E9;
```

By the first we mean é in its native UTF-8 encoding. (Note that in that encoding the character is not hex `E9` but is encoded as the two-byte sequence `C3 A9`.) Only the first one is allowed to be delivered to Elsevier.

Outside markup, <, " and & are always escaped and present in their pre-defined entity forms `<`, `"` and `&`.

Whitespace in the XML file

In this section, “whitespace” refers to the space character (ASCII 32), the linefeed (LF) character (ASCII 10) and the TAB character (ASCII 9). Each of these characters has the same effect: a space in the rendered document.

Unlike the SGML files structured according to DTDs prior to DTD 5, DTD 5 XML files may contain TABs and linefeed characters for ease of reading XML files with the human eye. The carriage-return (CR) character (ASCII 13) is not allowed; line breaks therefore do not follow the MSDOS pattern CRLF.

When a sequence of consecutive whitespace characters appears in an XML file, the effect is as if one space were present. These sequences may only occur at the beginning of a line.

Care should be taken when using whitespace at the beginning or end of mixed-content elements, i.e., with `#PCDATA` in their content model.

XML

```
<ce:caption id="cap67">
  <ce:simple-para id="sp71">This is a paragraph ending in a whitespace
    (the linefeed after the full stop); this is not correct.
  </ce:simple-para>
</ce:caption>
```

There are five whitespace characters between “whitespace” and “(the”, which is allowed; they count as one space. The three whitespaces after the full stop, however, are not correct. (It follows from the DTD that the three whitespace characters after the `ce:caption` start tag are ignored.)

It should be noted that in some of the examples in this documentation, erroneous extra spacing has sometimes been introduced to make the examples easier to read. The close-up sign ‿ is used in that case to make it clear that the XML files should have no spaces or linebreaks at this point.

XML

```
<ce:caption id="c4">
  <ce:simple-para id="sp4">The close-up sign indicates that there
    should be no whitespace at the end of the paragraph; the end tag
    is placed on the next line only for reasons of readability.‿
  </ce:simple-para>
</ce:caption>
```

Entities and the DOCTYPE declaration

The relationship between the XML file and the artwork files and files containing electronic components is made via XML *entities*. These entities are used exclusively in the ce:link element and must be declared within the declaration subset of the XML file according to the rules described in this section.

Consider a journal article consisting of an XML file main.xml; three artwork files gr1.jpg, gr2.jpg and fx1.tif; an audio file au1.mp3 and a videoclip clip.avi.

The XML file of the article, structured with the journal article DTD, begins like this:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE article
  PUBLIC "-//ES//DTD journal article DTD version 5.6.0//EN//XML"
  "art560.dtd" [
    <!ENTITY gr1 SYSTEM "gr1" NDATA IMAGE>
    <!ENTITY gr2 SYSTEM "gr2" NDATA IMAGE>
    <!ENTITY fx1 SYSTEM "fx1" NDATA IMAGE>
    <!ENTITY au1 SYSTEM "au1" NDATA AUDIO>
    <!ENTITY clip SYSTEM "clip" NDATA VIDEO>]>
<article docsubtype="fla">
   ...
</article>
```

The entities gr1–clip are used in the ENTITY-type attributes of the element ce:link. The system names are the file names without extension. The external entity name must be the same as the system name.

The actual link is established in a three-step process, starting with its usage within the document which looks like this:

```
<ce:biography id="vt1">
  <ce:link locator="fx1" xlink:type="simple" xlink:role=
    "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
    xlink:href="pii:S0012365X15000898/fx1"/>
  <ce:simple-para id="sp56">...</ce:simple-para>
</ce:biography>
```

The ce:link element instructs the rendering application to pull in an external file. It is the file referenced through the entity fx1, the value of the locator attribute, that is declared in the doctype declaration as the external entity with system name (i.e., file name) fx1. The *catalog* redirects this to fx1.tif.

Note: This is the classical way. In the modern way the xlink:href attribute can be used to access the content object in the VTW. For more information see the description of element ce:link.

In the declaration subset (between square brackets), it is only allowed to declare entities of the types NDATA. The notations defined in the DTD are TEXT, reserved for plain text; IMAGE, reserved for artwork formats such as GIF, JPEG and TIF; AUDIO, reserved for audio formats such as MP3; VIDEO, reserved for video formats such as AVI, MP4 and MPEG; APPLICATION, reserved for documents for other applications or for scripts and executables; and XML, reserved for external XML files, e.g. for scalable vector graphics

or chemical object notations. (Not all these notations are currently used.) Precisely those entities needed in the document must be declared.

Applications that wish to check whether all external files are present should examine the declaration subset of the XML file and verify these against the dataset.

Obviously, only files referred to from the XML file are declared as entities as described above. Other files belonging to the item, such as PDF files, are not mentioned in the XML file.

An XML file's DTD version and catalogs

It is expected that the public identifier in the DOCTYPE declaration of the XML file is used to retrieve the DTD as well as its version number. The `version` attribute of the top element should not be used as it only contains the first two digits of the DTD version number for reasons of backward compatibility (p. 8).

XML

```
<!DOCTYPE simple-article
  PUBLIC "-//ES//DTD journal article DTD version 5.6.0//EN//XML"
  "art560.dtd">

<!DOCTYPE serial-issue
  PUBLIC "-//ES//DTD serials issue DTD version 5.6.0//EN//XML"
  "si560.dtd">

<!DOCTYPE book
  PUBLIC "-//ES//DTD book DTD version 5.6.0//EN//XML"
  "book560.dtd">

<!DOCTYPE converted-article
  PUBLIC "-//ES//DTD journal article DTD version 4.5.2//EN//XML"
  "art452.dtd">
```

The string after the keyword `PUBLIC` contains the DTD associated with the XML file that has this DOCTYPE declaration. The system identifier does not contain that information. To map the public identifier to a file on the user's system XML catalogs should be used as explained below.

XML catalogs

Catalogs are an important tool in entity management: they allow XML tools to locate DTDs and other external files that are used by the XML file. Catalogs make entity management flexible: they allow us to associate system identifiers (file paths and names) to public identifiers, and to rewrite system identifiers.

During the SGML era the SGML Open Catalog (SOC) specification was developed [16]. James Clark's SP suite is a well-known application implementing SOC, and it was the only application that implemented system identifier rewriting.

XML has long done without its own entity resolution system. It had the new rule that even the declaration of a public identifier had to contain a system identifier, which allowed external entity handling to be simple. Some applications continued to use the SOC system. On 6 August 2001 and again on 24 October 2002 OASIS published its XML Catalog specification [17]. It can be seen as a continuation and a refinement of the SOC system. It provides powerful methods to map public identifiers to system identifiers, to rewrite system identifiers, and to modularize catalog management. At the time of this writing several XML toolsets contain implementations of this catalog specification; for an overview see the home page of OASIS' catalog committee [18].

XML

```
<?xml version="1.0" encoding="UTF-8" ?>
<catalog xmlns="urn:oasis:names:tc:entity:xmlns:xml:catalog"
```

```
        prefer="public">

  <public
    publicId="-//ES//DTD journal article DTD version 5.6.0//EN//XML"
    uri="file:///D:/home/xml/dtd/art560/art560.dtd"/>

  <group xml:base="file:///D:/home/article/">
    <system systemID="gr1" uri="main.assets/gr1.tif"/>
    <system systemID="gr2" uri="main.assets/gr2.tif"/>
  </group>

  <group xml:base="file:///D:/home/xml/dtd/">
    <nextCatalog catalog="mathml/xcatalog"/>
    <nextCatalog catalog="calstable/xcatalog"/>
  </group>

  <rewriteSystem systemIdStartString="file:///D:/home/article/"
         rewritePrefix="file:///G:/datasets/20030310/art5001/"/>

</catalog>
```

The above example catalog starts with specifying where the JA DTD can be found. Note that this ignores the system identifier for this DTD in the XML file itself. Also note that this is a local implementation, on other systems the DTD may be located elsewhere.

Then the system identifiers for the images in the XML file discussed above are mapped to an existing file location. Note that a subdirectory is specified and a file name extension is given.

Then two other catalogs are included, for the MathML DTD and the CALS table DTD. This makes it possible to maintain separate catalogs for these subsystems.

Finally some system identifiers are rewritten. Rewriting applies to the start of the system identifier. Here a situation is described where all data for the article have been moved from one place to another.

XML catalogs provide more facilities for entity management. See the specification [17] for details.

Note that using catalogs in this way makes it possible to perform a third-digit update of the DTD by changing the catalog in such a way that the public identifier of the old and new versions both point to the new DTD.

Namespaces in the XML file

Namespaces are widely used in programming. XML has introduced namespaces to text structuring. Namespaces allow one to reuse commonly used names. For example, the element `title` may have a different content model in one namespace than in another. More importantly, namespaces allow one to group related elements together, and separate them off from other groups of elements.

Namespaces are indicated by their name. In XML, the name is a URI. Usually it is a URL, e.g. `http://www.elsevier.com/xml/common/dtd`. Sometimes it has a rather different form of URI, e.g. `urn:oasis:names:tc:entity:xmlns:xml:catalog`, which is the name of the namespace of an XML catalog.

In an XML document namespaces are indicated by prefixes. A prefix is an alias for a namespace name. Prefixes are defined according to a flexible system. Each element in an XML document may declare prefixes for one or more namespaces using the attribute `xmlns:pfx="name"`, where pfx is the newly declared prefix. This prefix is valid for this element and all its descendants, until it is redeclared by another `xmlns` attribute. One may also declare a default namespace, with the attribute `xmlns="name"`. This causes this element, if it does not have a prefix, as well as all its descendants without a prefix, to belong to the declared namespace. When there is no default namespace declaration, all elements without a prefix do not belong to a namespace. One could also say that they belong to the namespace with an empty name.

This flexible system does not fit well into the DTD system. A DTD is not namespace aware. In a DTD the prefix is a fixed part of an element's name. It must be used as determined by the DTD, and cannot be redeclared in the XML document. If one would redeclare a prefix as describe above, the document would become invalid according to the DTD. Some flexibility can be gained by writing the DTD in such a way that the prefix is determined by an entity. This allows one to declare a different prefix at the top of each XML document. The CEP does not use this flexibility, and fixes the prefixes used.

The CEP and the DTDs built on top of it, do all namespace declarations in the DTD, by means of attributes with fixed values. This has the advantage that no namespace declarations are required in the XML document. For a proper understanding that may be a disadvantage, because in the XML document the namespaces are rather invisible. Only by looking up the DTD can one find out in which namespaces the elements live.

Elsevier's additional glyphs

Not all symbols used in our publications have been adopted by Unicode. Prior to DTD 5.0, these symbols were part of the "Elsevier Science Grid" [5]. The element `ce:glyph` has been introduced so that we can continue to support these additional symbols.

It is expected that some or all of the glyphs may be added to future versions of Unicode. In that case, it is not an error to use the `ce:glyph` element, but it is preferred that the Unicode character is used.

The list of glyph names allowed in `ce:glyph` is contained in the parameter entity `%glyph-names;`. The following two tables give an overview of the glyph names and the symbols to which they refer. The position refers to the position in the Grid [5]. When a Unicode code point has been assigned to a symbol, it is listed in the column Unicode.

Rendering applications need to store these glyphs, they are not delivered along with the XML files as are strip-ins (p. 23).

Glyphs ordered by grid coordinate

Position	Glyph name	Description	Unicode
Bd5	dlcorn	left bottom corner, long	
Bd6	smid	shortmid (Height of small x)	
Bd7	spar	short parallel (Height small x)	
Be5	drcorn	right bottom corner, long	
Be6	nsmid	nshortmid	
Be7	nspar	not short parallel	
Bfp	sqfne	square with filled N-E-corner	02B14
Bfr	sqfsw	square with filled S-W-corner	02B15
Bfv	sqft	square, top filled	02B12
Bfw	sqfb	square, bottom filled	02B13
Bgg	lozfl	lozenge, left filled	
Bgh	lozfr	lozenge, right filled	
Bgi	lozf	lozenge, filled	029EB
Bh8	herma	hermaphrodite	
Bji	S	S-sign	
Bn3	lbd2td	2 bonds on the lefthand side, top double	
Bn4	lbd2bd	2 bonds on the lefthand side, bottom double	
Bn5	rbd2td	2 bonds on the righthand side, top double	
Bn6	rbd2bd	2 bonds on the righthand side, bottom double	
Bo0	rad	radical dot	
Bo1	pent	pentagon	02B20
Bo3	pdbdtd	partial double bond, top dashed	
Bo5	ptbdtd	partial triple bond, top dashed	
Bo6	ptbdbd	partial triple bond, bottom dashed	
Bo7	sbnd	single bond	
Bo8	pdbond	Partial double bond	
Boq	dbnd	double bond; length as m-dash	
Bor	tbnd	triple bond; length as m-dash	
Bos	qbnd	quadruple bond; length as m-dash	
Bpq	dbnd6	6-point double bond; length half of m-dash	
Bpr	tbnd6	6-point triple bond; length half of m-dash	
Bps	qbnd6	six-point quadruple bond; length half of m-dash	

Position	Glyph name	Description	Unicode
Bpt	rbond3	3 bonds on the righthand side	
Bpu	lbond3	3 bonds on the lefthand side	
Bpv	rbond2	2 bonds on the righthand side	
Bpw	lbond2	2 bonds on the lefthand side	
Buc	camb	Cambrian (era)	
Can	bigdot	big dot above (accent)	
Cfi	jnodot	undotted l.c. j	
Pa8	ht	hooktop (phonetic symbol)	
Pb6	ggrave	extra low, accent (phonetic symbol)	
Pb8	ctl	curly tail (phonetic symbol)	
Pc3	sbw	subscript w (phonetic symbol)	
Pc6	hris	high rising, accent (phonetic symbol)	
Pc7	hriss	high rising, symbol (phonetic symbol)	002E6-002E5
Pd3	hbar	horizontal bar (phonetic symbol)	
Pd6	lris	low rising, accent (phonetic symbol)	
Pd7	lriss	low rising, symbol (phonetic symbol)	002E9-002E8
Pdk	resmck	small capital K, reversed (phonetic symbol)	
Pdp	phktp	p hooktop (phonetic symbol)	001A5
Pe6	risfla	rising-falling, accent (phonetic symbol)	
Pe7	risfls	rising-falling, symbol (phonetic symbol)	002E6-002E5-002E6
Pfj	jnodot	j, undotted (phonetic symbol)	00237
Pgh	hrttrh	turned h, hook right tail (phonetic symbol)	
Phn	ncurt	curly-tail n (phonetic symbol)	00235
Pht	tcurt	curly-tail t (phonetic symbol)	00236
Pid	dcurt	curly-tail d (phonetic symbol)	00221
Pih	heng	heng (phonetic symbol)	
Pj1	pSlash	double Slash (phonetic symbol)	
Pk1	trisla	triple Slash (phonetic symbol)	
Pko	trnomeg	inverted omega (phonetic symbol)	
Plr	refhrl	reversed fish-hook r, long leg (phonetic symbol)	
Pt2	btmlig	bottom ligature (phonetic symbol)	

Glyphs ordered by glyph name

Glyph name	Position	Description	Unicode
bigdot	Can	big dot above (accent)	
btmlig	Pt2	bottom ligature (phonetic symbol)	
camb	Buc	Cambrian (era)	
ctl	Pb8	curly tail (phonetic symbol)	
dbnd	Boq	double bond; length as m-dash	
dbnd6	Bpq	6-point double bond; length half of m-dash	
dcurt	Pid	curly-tail d (phonetic symbol)	00221
dlcorn	Bd5	left bottom corner, long	
drcorn	Be5	right bottom corner, long	
ggrave	Pb6	extra low, accent (phonetic symbol)	
hbar	Pd3	horizontal bar (phonetic symbol)	
heng	Pih	heng (phonetic symbol)	
herma	Bh8	hermaphrodite	
hris	Pc6	high rising, accent (phonetic symbol)	
hriss	Pc7	high rising, symbol (phonetic symbol)	002E6-002E5
hrttrh	Pgh	turned h, hook right tail (phonetic symbol)	
ht	Pa8	hooktop (phonetic symbol)	
jnodot	Pfj	j, undotted (phonetic symbol)	00237
lbd2bd	Bn4	2 bonds on the lefthand side, bottom double	
lbd2td	Bn3	2 bonds on the lefthand side, top double	
lbond2	Bpw	2 bonds on the lefthand side	
lbond3	Bpu	3 bonds on the lefthand side	
lozf	Bgi	lozenge, filled	029EB
lozfl	Bgg	lozenge, left filled	
lozfr	Bgh	lozenge, right filled	
lris	Pd6	low rising, accent (phonetic symbol)	
lriss	Pd7	low rising, symbol (phonetic symbol)	002E9-002E8
ncurt	Phn	curly-tail n (phonetic symbol)	00235
nsmid	Be6	nshortmid	
nspar	Be7	not short parallel	
pdbdtd	Bo3	partial double bond, top dashed	
pdbond	Bo8	Partial double bond	
pent	Bo1	pentagon	02B20
phktp	Pdp	p hooktop (phonetic symbol)	001A5
pSlash	Pj1	double Slash (phonetic symbol)	
ptbdbd	Bo6	partial triple bond, bottom dashed	
ptbdtd	Bo5	partial triple bond, top dashed	
qbnd	Bos	quadruple bond; length as m-dash	
qbnd6	Bps	six-point quadruple bond; length half of m-dash	
rad	Bo0	radical dot	
rbd2bd	Bn6	2 bonds on the righthand side, bottom double	
rbd2td	Bn5	2 bonds on the righthand side, top double	
rbond2	Bpv	2 bonds on the righthand side	
rbond3	Bpt	3 bonds on the righthand side	
refhrl	Plr	reversed fish-hook r, long leg (phonetic symbol)	
resmck	Pdk	small capital K, reversed (phonetic symbol)	
risfla	Pe6	rising-falling, accent (phonetic symbol)	
risfls	Pe7	rising-falling, symbol (phonetic symbol)	002E6-002E5-002E6
S	Bji	S-sign	
sbnd	Bo7	single bond	
sbw	Pc3	subscript w (phonetic symbol)	

Glyph name	Position	Description	Unicode
smid	Bd6	shortmid (Height of small x)	
spar	Bd7	short parallel (Height small x)	
sqfb	Bfw	square, bottom filled	02B13
sqfne	Bfp	square with filled N-E-corner	02B14
sqfsw	Bfr	square with filled S-W-corner	02B15
sqft	Bfv	square, top filled	02B12
tbnd	Bor	triple bond; length as m-dash	
tbnd6	Bpr	6-point triple bond; length half of m-dash	
tcurt	Pht	curly-tail t (phonetic symbol)	00236
trisla	Pk1	triple Slash (phonetic symbol)	
trnomeg	Pko	inverted omega (phonetic symbol)	

Strip-in images

Since Elsevier began delivering SGML files for electronic products, the files have been accompanied with graphic representations of SGML expressions that are hard to render. Prior to DTD 5.0, these included all accent constructions, all formulae and all tables. Graphic representations of these constructs are called *strip-ins*. These strip-ins were created by Elsevier's Electronic Warehouse from the SGML source.

Strip-ins should not be confused with graphic images of *symbols* in the Elsevier Grid that cannot be represented in today's HTML-based browsers. Such images, seen on platforms such as ScienceDirect®, look the same as strip-ins, but are held in glyph libraries of the platforms. With the adoption of Unicode, graphic representation of symbols will become a thing of the past.

Some constructs in an XML file structured by one of the DTDs of the 5.0 family are still hard to render on today's browsers.

- MathML (Chapter 11) is not yet supported natively in the important browsers that Elsevier's readers use, although we expect that to change in the near future. After some time in which readers switch to the newer version, we can assume that MathML can be rendered without problem. At present, however, we continue to supply strip-ins for the element `mml:math`.
- We expect that native CALS tables (Chapter 12) can be rendered in today's web browsers, but the more complicated extended CALS tables are a different matter. These require complicated border styles or complicated alignment that is not possible. For `tgroup` elements with extensions with the `tb:` prefix, we also supply strip-ins. Unlike strip-ins for math, these strip-ins may well continue to be supplied in the future.

Both the `mml:math` and the `tgroup` elements possess an attribute `altimg` that contains the filename of the strip-in image. Note that unlike other external files, the link is not made via an entity (as described in the section Entities and the DOCTYPE declaration, p. 14).

XML

```
<mml:math altimg="si18.gif">...</mml:math>
<tgroup altimg="si103.gif">...</tgroup>
```

The strip-in images are GIF images of the typeset output found in the PDF file of the document. The GIF images are specified in more detail elsewhere. Some points to note:

- Strip-ins are cropped closely. The current specifications do not allow the baseline to be specified. This is only a potential problem for small inline formulae, not for displayed formulae or tables.
- Strip-ins of displayed formulas look identical to the PDF version, except when a column or page break appears right in the middle of them. So, in a two-column journal they might look narrow and in a one-column journal they will be wider.
- Strip-ins of inline formulas look identical to the PDF version except when a line break happens to appear in the middle of them. The strip-in image will appear unbroken.
- Strip-ins of `tgroup`s are always one GIF image, irrespective of the height and width of the table.

Note: In an automated workfow early in the production process the images used in element `ce:math` are not strip-in images but regular CAP images, usually in the JPEG format. Later on this element and the image are replaced by MathML and a strip-in image.

Chapter 3
Journal Article DTD

This chapter contains an alphabetic listing of the elements in the journal article DTD, the JA DTD. This DTD is used for capturing journal articles. It is also applied for structuring chapters of certain types of books, e.g. chapters in volumes of book series.

The JA DTD is the successor of the SGML full-length article DTDs.

The journal article DTD defines four top-level elements: `article`, `simple-article`, `book-review` and `exam`.

The serial issue DTD, SI DTD, described in Chapter 4, is a related DTD. It is used for capturing the data belonging to a journal issue or a book series volume.

CEP version used in this DTD

The journal article DTD versions described in this documentation use different versions of the common element pool, as follows:

Journal article DTD	Common element pool
JA DTD 5.0.1	CEP 1.1.0
JA DTD 5.0.2	CEP 1.1.0.1
JA DTD 5.1.0	CEP 1.1.5
JA DTD 5.2.0	CEP 1.2.0
JA DTD 5.4.0	CEP 1.4.0
JA DTD 5.5.0	CEP 1.5.0
JA DTD 5.6.0	CEP 1.6.0

To align the version numbers of the JA DTD, the Book DTD and the CEP, versions 5.3.0 of the JA DTD and 1.3.0 of the CEP were not created.

Parameter entities

The journal article DTD versions 5.0.1 and 5.0.2 locally declare parameter entities `%cross-ref;` and `%cross-refs;` to consist of `ce:cross-ref` and `ce:cross-refs`, respectively.

```
<!ENTITY % cross-ref        "ce:cross-ref" >
<!ENTITY % cross-refs       "ce:cross-refs" >
```

As a result, it is impossible to use `ce:intra-ref` and `ce:intra-refs` in documents structured with these versions of the JA DTD.

This restriction is removed in JA DTD 5.1.0.

aid

Declaration

Model (JA DTD 5.0.1–JA DTD 5.6.0)

```
<!ELEMENT  aid                    ( %string.data; )*>
```

Description

The element aid contains the article number of the item.

Usage

The article ID is captured using aid. Article IDs have no leading zeroes.

See also

ce:doi, ce:pii, ce:article-number, jid

article

Declaration

Model (JA DTD 5.0.1, JA DTD 5.0.2)

```
<!ELEMENT  article              ( item-info, ce:floats?, head, body?,
                                   tail? )>
<!ATTLIST  article
           xmlns                CDATA            #FIXED %ESJA.xmlns;
           version              CDATA            #FIXED '5.0'
           xmlns:ce             CDATA            #FIXED %ESCE.xmlns;
           xmlns:sb             CDATA            #FIXED %ESSB.xmlns;
           xmlns:xlink          CDATA            #FIXED %XLINK.xmlns;
           xml:lang             %language;       'en'
           docsubtype           %docsubtype;     "fla">
```

Model (JA DTD 5.1.0)

```
<!ELEMENT  article              ( item-info, ce:floats?, head, body?,
                                   tail? )>
<!ATTLIST  article
           xmlns                CDATA            #FIXED %ESJA.xmlns;
           version              CDATA            #FIXED '5.1'
           xmlns:ce             CDATA            #FIXED %ESCE.xmlns;
           xmlns:sb             CDATA            #FIXED %ESSB.xmlns;
           xmlns:xlink          CDATA            #FIXED %XLINK.xmlns;
           xml:lang             %iso639;         'en'
           docsubtype           %docsubtype;     "fla">
```

Model (JA DTD 5.2.0)

```
<!ELEMENT  article              ( item-info, ce:floats?, head, body?,
                                   tail? )>
<!ATTLIST  article
           xmlns                CDATA            #FIXED %ESJA.xmlns;
           version              CDATA            #FIXED '5.2'
           xmlns:ce             CDATA            #FIXED %ESCE.xmlns;
           xmlns:sa             CDATA            #FIXED %ESSA.xmlns;
           xmlns:sb             CDATA            #FIXED %ESSB.xmlns;
           xmlns:xlink          CDATA            #FIXED %XLINK.xmlns;
           xml:lang             %iso639;         'en'
           docsubtype           %docsubtype;     "fla">
```

Model (JA DTD 5.4.0)

```
<!ELEMENT  article              ( item-info, ce:floats?, head, body?,
                                   tail? )>
<!ATTLIST  article
           xmlns                CDATA            #FIXED %ESJA.xmlns;
           version              CDATA            #FIXED '5.4'
           xmlns:ce             CDATA            #FIXED %ESCE.xmlns;
           xmlns:sa             CDATA            #FIXED %ESSA.xmlns;
           xmlns:sb             CDATA            #FIXED %ESSB.xmlns;
           xmlns:xlink          CDATA            #FIXED %XLINK.xmlns;
           xml:lang             %iso639;         'en'
           docsubtype           %docsubtype;     "fla">
```

Model (JA DTD 5.5.0)

```
<!ELEMENT  article              ( item-info, ce:floats?, head, body?,
                                 tail? )>
<!ATTLIST  article
           xmlns                CDATA            #FIXED %ESJA.xmlns;
           version              CDATA            #FIXED '5.5'
           xmlns:ce             CDATA            #FIXED %ESCE.xmlns;
           xmlns:sa             CDATA            #FIXED %ESSA.xmlns;
           xmlns:sb             CDATA            #FIXED %ESSB.xmlns;
           xmlns:xlink          CDATA            #FIXED %XLINK.xmlns;
           xml:lang             %iso639;         'en'
           docsubtype           %docsubtype;     "fla">
```

Model (JA DTD 5.6.0)

```
<!ELEMENT  article              ( item-info, ce:floats?, head, body?,
                                 tail? )>
<!ATTLIST  article
           xmlns                CDATA            #FIXED %ESJA.xmlns;
           version              CDATA            #FIXED '5.6'
           xmlns:ce             CDATA            #FIXED %ESCE.xmlns;
           xmlns:sa             CDATA            #FIXED %ESSA.xmlns;
           xmlns:sb             CDATA            #FIXED %ESSB.xmlns;
           xmlns:xlink          CDATA            #FIXED %XLINK.xmlns;
           xml:lang             %iso639;         'en'
           docsubtype           %docsubtype;     "fla">
```

Description

The element `article` contains a complete journal article or a complete book chapter.

Usage

The element `article` is one of the top-level elements (doctypes) of the JA DTD. It is used for structuring full-length articles and other articles of scientific importance.

There are several attributes of the element, as follows.

- The attribute `docsubtype` is the most important one. It defaults to `fla`; its complete list of values is described in the section Publication item types (p. 56). Under regular production conditions, articles with this attribute set to `chp`, `fla`, `rev`, `sco` or `ssu` will be structured with `article`. However, a CONTENTS-ENTRY-ONLY full-length article may well be structured using `simple-article`. The precise rules are described in the Electronic Warehouse Input specifications.
- The attribute `xml:lang` specifies the language in which the article is written (default English, `en`). See ISO 639 set of entities (p. 192) for an overview of the allowed language codes.
- The fixed attribute `xmlns` sets the default namespace for JA elements, and the other fixed attributes beginning with `xmlns:` set the prefix and the namespace of elements used in the DTD, e.g. those of the common element pool (`xmlns:ce`, `xmlns:sa` and `xmlns:sb`) and of the XLink standard (`xmlns:xlink`). Since these attributes are fixed, they need not be specified as they are inferred by the parser.
- `version` is fixed to the first two digits of the version of the DTD.

See `head` for an example article opening.

Version history

In JA DTDs 5.0.1 and 5.0.2, `xml:lang` could only can adopt the values English (`en`, default) French (`fr`), German (`de`), Portuguese (`pt`), Russian (`ru`), Spanish (`es`).

See also

`book-review`, `exam`, `simple-article`

body

Declaration

Model (JA DTD 5.0.1–JA DTD 5.4.0)

```
<!ELEMENT  body                ( ce:nomenclature?, ce:salutation?,
                                 ce:sections, ce:acknowledgment?,
                                 ce:appendices? )>
<!ATTLIST  body
           view                %view;           'all'>
```

Model (JA DTD 5.5.0)

```
<!ELEMENT  body                ( ce:nomenclature?, ce:salutation?,
                                 ce:sections, ce:acknowledgment*,
                                 ce:appendices? )>
<!ATTLIST  body
           view                %view;           'all'>
```

Model (JA DTD 5.6.0)

```
<!ELEMENT  body                ( ce:nomenclature?, ce:salutation?,
                                 ce:sections, ce:conflict-of-interest?,
                                 ce:acknowledgment*, ce:appendices? )>
<!ATTLIST  body
           view                %view;           'all'>
```

Description

The element body contains the body of an item.

Usage

The main part of a document is contained in the body, body. It consists of an optional nomenclature (ce:nomenclature), an optional salutation (ce:salutation), a collection of paragraphs, sections, subsections, etc., contained in ce:sections, an optional conflict of interest statement (ce:conflict-of-interest), optional acknowledgments (ce:acknowledgment), and optional appendices contained in ce:appendices.

Version history

In JA DTD 5.5.0 the occurrence indicator for ce:acknowledgment changed from ? to *.

In JA DTD 5.6.0 the subelement ce:conflict-of-interest was introduced.

Light reading

In HEAD-ONLY, HEAD-AND-TAIL and CONTENTS-ENTRY-ONLY deliveries, the body is not fully captured in XML. Such documents may still have a body, for instance in order to capture electronic components.

book-review

Declaration

Model (JA DTD 5.0.1, JA DTD 5.0.2)

```
<!ELEMENT  book-review          ( item-info, ce:floats?, book-review-
                                  head, body?, simple-tail? )>
<!ATTLIST  book-review
           xmlns                CDATA             #FIXED %ESJA.xmlns;
           version              CDATA             #FIXED '5.0'
           xmlns:ce             CDATA             #FIXED %ESCE.xmlns;
           xmlns:sb             CDATA             #FIXED %ESSB.xmlns;
           xmlns:xlink          CDATA             #FIXED %XLINK.xmlns;
           xml:lang             %language;        'en'
           docsubtype           %docsubtype;      #FIXED "brv">
```

Model (JA DTD 5.1.0)

```
<!ELEMENT  book-review          ( item-info, ce:floats?, book-review-
                                  head, body?, simple-tail? )>
<!ATTLIST  book-review
           xmlns                CDATA             #FIXED %ESJA.xmlns;
           version              CDATA             #FIXED '5.1'
           xmlns:ce             CDATA             #FIXED %ESCE.xmlns;
           xmlns:sb             CDATA             #FIXED %ESSB.xmlns;
           xmlns:xlink          CDATA             #FIXED %XLINK.xmlns;
           xml:lang             %iso639;          'en'
           docsubtype           ( brv|err )       "brv">
```

Model (JA DTD 5.2.0)

```
<!ELEMENT  book-review          ( item-info, ce:floats?, book-review-
                                  head, body?, simple-tail? )>
<!ATTLIST  book-review
           xmlns                CDATA             #FIXED %ESJA.xmlns;
           version              CDATA             #FIXED '5.2'
           xmlns:ce             CDATA             #FIXED %ESCE.xmlns;
           xmlns:sa             CDATA             #FIXED %ESSA.xmlns;
           xmlns:sb             CDATA             #FIXED %ESSB.xmlns;
           xmlns:xlink          CDATA             #FIXED %XLINK.xmlns;
           xml:lang             %iso639;          'en'
           docsubtype           ( brv|err )       "brv">
```

Model (JA DTD 5.4.0)

```
<!ELEMENT  book-review          ( item-info, ce:floats?, book-review-
                                  head, body?, simple-tail? )>
<!ATTLIST  book-review
           xmlns                CDATA             #FIXED %ESJA.xmlns;
           version              CDATA             #FIXED '5.4'
           xmlns:ce             CDATA             #FIXED %ESCE.xmlns;
           xmlns:sa             CDATA             #FIXED %ESSA.xmlns;
           xmlns:sb             CDATA             #FIXED %ESSB.xmlns;
           xmlns:xlink          CDATA             #FIXED %XLINK.xmlns;
           xml:lang             %iso639;          'en'
           docsubtype           ( brv|err )       "brv">
```

Model (JA DTD 5.5.0)

```
<!ELEMENT  book-review          ( item-info, ce:floats?, book-review-
                                  head, body?, simple-tail? )>
<!ATTLIST  book-review
           xmlns                CDATA             #FIXED %ESJA.xmlns;
           version              CDATA             #FIXED '5.5'
           xmlns:ce             CDATA             #FIXED %ESCE.xmlns;
           xmlns:sa             CDATA             #FIXED %ESSA.xmlns;
           xmlns:sb             CDATA             #FIXED %ESSB.xmlns;
           xmlns:xlink          CDATA             #FIXED %XLINK.xmlns;
           xml:lang             %iso639;          'en'
           docsubtype           ( brv|err )       "brv">
```

Model (JA DTD 5.6.0)

```
<!ELEMENT  book-review          ( item-info, ce:floats?, book-review-
                                  head, body?, simple-tail? )>
<!ATTLIST  book-review
           xmlns                CDATA             #FIXED %ESJA.xmlns;
           version              CDATA             #FIXED '5.6'
           xmlns:ce             CDATA             #FIXED %ESCE.xmlns;
           xmlns:sa             CDATA             #FIXED %ESSA.xmlns;
           xmlns:sb             CDATA             #FIXED %ESSB.xmlns;
           xmlns:xlink          CDATA             #FIXED %XLINK.xmlns;
           xml:lang             %iso639;          'en'
           docsubtype           ( brv|err )       "brv">
```

Description

The element book-review is used to structure a book review.

Usage

The element book-review is one of the top-level elements (doctypes) of the JA DTD. It is used for structuring book reviews.

There are several attributes of the element, as follows.

- The attribute docsubtype contains the publication item type (p. 56) The values brv and err are allowed.
- The attribute xml:lang specifies the language in which the article is written (default English, en). See ISO 639 set of entities (p. 192) for an overview of the allowed language codes.
- The fixed attribute xmlns sets the default namespace for JA elements, and the other fixed attributes beginning with xmlns: set the prefix and the namespace of elements used in the DTD, e.g. those of the common element pool (xmlns:ce, xmlns:sa and xmlns:sb) and of the XLink standard (xmlns:xlink). Since these attributes are fixed, they need not be specified as they are inferred by the parser.
- version is fixed to the first two digits of the version of the DTD.

See book-review-head for an example article opening.

Version history

In JA DTDs 5.0.1 and 5.0.2, xml:lang could only adopt the values English (en, default) French (fr), German (de), Portuguese (pt), Russian (ru), Spanish (es).

As of JA DTD 5.1.0, the value err is allowed for docsubtype.

See also

article, exam, simple-article

book-review-head

Declaration

Model (JA DTD 5.0.1)

```
<!ELEMENT  book-review-head      ( ce:article-footnote*, ( ( ce:title,
                                   ce:alt-title* ) | ( ce:dochead,
                                   ( ce:title, ce:alt-title* )? ) ),
                                   ( sb:reference | ce:other-ref )+,
                                   ce:author-group+, ce:date-received?,
                                   ce:date-revised*, ce:date-accepted?,
                                   ce:miscellaneous? )>
```

Model (JA DTD 5.0.2)

```
<!ELEMENT  book-review-head      ( ce:article-footnote*, ce:markers?,
                                   ( ( ce:title, ce:alt-title* ) |
                                   ( ce:dochead, ( ce:title, ce:alt-
                                   title* )? ) ), ( sb:reference |
                                   ce:other-ref )+, ce:author-group+,
                                   ce:date-received?, ce:date-
                                   revised*, ce:date-accepted?,
                                   ce:miscellaneous? )>
```

Model (JA DTD 5.1.0, JA DTD 5.2.0)

```
<!ELEMENT  book-review-head      ( ce:article-footnote*, ce:markers?,
                                   ( ( ce:label?, ce:title, ce:alt-
                                   title* ) | ( ce:dochead, ce:label?,
                                   ( ce:title, ce:alt-title* )? ) ),
                                   ( sb:reference | ce:other-ref )+,
                                   ce:author-group+, ce:date-received?,
                                   ce:date-revised*, ce:date-accepted?,
                                   ce:miscellaneous? )>
```

Model (JA DTD 5.4.0, JA DTD 5.5.0)

```
<!ELEMENT  book-review-head      ( ce:article-footnote*, ce:markers?,
                                   ( ( ce:label?, ce:title, ce:alt-
                                   title* ) | ( ce:dochead, ce:label?,
                                   ( ce:title, ce:alt-title* )? ) ),
                                   ( sb:reference | ce:other-ref )+,
                                   ce:author-group+, ce:date-received?,
                                   ce:date-revised*, ce:date-accepted?,
                                   ce:miscellaneous* )>
```

Model (JA DTD 5.6.0)

```
<!ELEMENT  book-review-head      ( ce:article-footnote*, ce:markers?,
                                   ( ( ce:label?, ce:title, ce:alt-
                                   title*, ce:short-title? ) |
                                   ( ce:dochead, ce:label?, ( ce:title,
                                   ce:alt-title*, ce:short-title? )? ) ),
                                   ( sb:reference | ce:other-ref )+,
                                   ce:author-group+, ce:date-received?,
                                   ce:date-revised*, ce:date-accepted?,
                                   ce:miscellaneous* )>
```

Description

The element book-review-head contains the head or frontmatter of a book review, structured according to book-review.

Usage

The head of a book review consists of the article footnotes (ce:article-footnote), markers (ce:markers), the document heading (ce:dochead), a label (e.g., “Chapter 7”) (ce:label), the article title (ce:title), a sequence of titles each in an alternative language (ce:alt-title), a short version of the title (ce:short-title), a list of structured and unstructured bibliographic references, being the books under review (sb:reference and ce:other-ref), the author groups (ce:author-group), the article history (ce:date-received, ce:date-revised, ce:date-accepted) and ce:miscellaneous.

The book-review-head differs from a head in that head’s subtitles have been replaced by information about the book or books under review. Moreover, ce:title is not mandatory; instead, there must be at least a ce:dochead or a ce:title. There is no dedication or presented by, and there are no keywords and (stereochemistry) abstracts.

An example of an opening of a book review is shown in Figs. 2 and 3.

Version history

Subelement ce:markers was introduced in JA DTD 5.0.2. Subelement ce:label was introduced in JA DTD 5.1.0.

In JA DTD 5.4.0 the occurrence indicator for ce:miscellaneous changed from ? to *.

Subelement ce:short-title was added in JA DTD 5.6.0.

Light reading

The complete head is part of HEAD-ONLY and HEAD-AND-TAIL files. A CONTENTS-ENTRY-ONLY file can only contain ce:article-footnote, ce:title and ce:subtitle, and within ce:author-group only ce:author and ce:collaboration.

See also

head, simple-head


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Science of Computer Programming

Book review*

V. Stoltenberg-Hansen, I. Lindström and E.R. Griffor, *Mathematical Theory of Domains* (Cambridge Tracts in Theoretical Computer Science 22, 1994) 349 pp., Hardback.

Domain theory is the study of certain kinds of mathematical structure, *domains*, which model notions of approximation in computation. Such structures first arose in the development of denotational semantics of programming languages, where the notion of approximation was crucial for modelling recursion and recursively defined datatypes. From these roots, domain theory has blossomed into an interesting mathematical theory in its own right. Many varieties of domains have been identified and classified, with applications ranging from computation in continuous mathematics to abstract recursion theory.

Other recent textbooks in the area have been primarily concerned with the denotational semantics of programming languages, introducing domain theory as a necessary tool for the provision of such. *Mathematical Theory of Domains* takes an alternative approach, presenting domain theory very much from a pure mathematical standpoint. This approach is to be applauded. The mathematical theory of domains is more than sufficiently rich to deserve such a presentation, and previous expositions from this viewpoint have appeared only as unpublished notes, or as chapters in handbooks. Therefore, the authors have identified a genuine gap in the market. The question is how well they have filled it.

[...]

In summary, this book tackles the worthy goal of presenting domain theory as an interesting mathematical theory in its own right. Although the presentation is not completely to my taste, the book is well written and does contain a wealth of valuable material, especially in its second half. I would not entirely endorse it as an introductory textbook, but it is highly recommended as a useful and informative addition to any researcher's bookshelf.

Alex Simpson
University of Edinburgh

*Review copies of books which might be of interest to the readers of *Science of Computer Programming* should be sent to Prof. K. Apt (address: see inside front cover). Proceedings of conferences will not normally be reviewed.

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Figure 2: Example of an article opening (a mocked-up example from which some text has been removed). Its XML coding can be found in Fig. 3.

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE book-review
  PUBLIC "-//ES//DTD full length article DTD version 5.4.0//EN//XML"
  "art540.dtd">
<book-review docsubtype="brv">
<item-info>
  <jid>SCICO</jid><aid>508</aid>
  <ce:pii>S0167-6423(98)00009-4</ce:pii>
  <ce:doi>10.1016/S0167-6423(98)00009-4</ce:doi>
  <ce:copyright type="unknown" yr="1998"></ce:copyright>
</item-info>
<book-review-head>
  <ce:article-footnote>
    <ce:label>*</ce:label>
    <ce:note-para id="np1">Review copies of books which might be of interest
      to the readers of ...</ce:note-para>
  </ce:article-footnote>
  <ce:dochead id="dh1"><ce:textfn>Book review</ce:textfn></ce:dochead>
  <sb:reference id="sbr1">
    <sb:contribution>
      <sb:authors>
        <sb:author>
          <ce:given-name>V.</ce:given-name><ce:surname>Stoltenberg-Hansen</ce:surname>
        </sb:author>
        <sb:author>
          <ce:given-name>I.</ce:given-name><ce:surname>Lindström</ce:surname>
        </sb:author>
        <sb:author>
          <ce:given-name>E.R.</ce:given-name><ce:surname>Griffor</ce:surname>
        </sb:author>
      </sb:authors>
      <sb:title><sb:maintitle>Mathematical Theory of Domains</sb:maintitle></sb:title>
    </sb:contribution>
    <sb:host>
      <sb:book>
        <sb:book-series>
          <sb:series>
            <sb:title>
              <sb:maintitle>Cambridge Tracts in Theoretical Computer
                Science</sb:maintitle>
            </sb:title>
            <sb:volume-nr>22</sb:volume-nr>
          </sb:series>
        </sb:book-series>
        <sb:date>1994</sb:date>
      </sb:book>
    </sb:host>
    <sb:comment>349 pp., Hardback.</sb:comment>
  </sb:reference>
  <ce:author-group id="aug1">
    <ce:author id="au1" author-id="S0167642398000094-534458963605080bdf39f5ecf0fc613e">
      <ce:given-name>Alex</ce:given-name><ce:surname>Simpson</ce:surname>
    </ce:author>
    <ce:affiliation id="aff1">
      <ce:textfn>University of Edinburgh</ce:textfn>
      <sa:affiliation>
        <sa:organization>University of Edinburgh</sa:organization>
      </sa:affiliation>
    </ce:affiliation>
  </ce:author-group>
</book-review-head>
<body>
  <ce:sections>
    <ce:para id="p76">Domain theory is the study of certain kinds of
  mathematical structure, <ce:italic>domains</ce:italics>, which model
  notions of approximation in computation. ...
```

Figure 3: XML of the article opening shown in Fig. 2.

exam

Declaration

Model (JA DTD 5.0.1, JA DTD 5.0.2)

```
<!ELEMENT  exam                ( item-info, ce:floats?, simple-
                                 head, ( ce:exam-answers | ce:exam-
                                 questions )+ )>
<!ATTLIST  exam
           xmlns               CDATA            #FIXED %ESJA.xmlns;
           version             CDATA            #FIXED '5.0'
           xmlns:ce            CDATA            #FIXED %ESCE.xmlns;
           xmlns:sb            CDATA            #FIXED %ESSB.xmlns;
           xmlns:xlink         CDATA            #FIXED %XLINK.xmlns;
           xml:lang            %language;       'en'
           docsubtype          %docsubtype;     #FIXED "exm">
```

Model (JA DTD 5.1.0)

```
<!ELEMENT  exam                ( item-info, ce:floats?, simple-
                                 head, ( ce:exam-answers | ce:exam-
                                 questions )+ )>
<!ATTLIST  exam
           xmlns               CDATA            #FIXED %ESJA.xmlns;
           version             CDATA            #FIXED '5.1'
           xmlns:ce            CDATA            #FIXED %ESCE.xmlns;
           xmlns:sb            CDATA            #FIXED %ESSB.xmlns;
           xmlns:xlink         CDATA            #FIXED %XLINK.xmlns;
           xml:lang            %iso639;         'en'
           docsubtype          ( exm|err )      "exm">
```

Model (JA DTD 5.2.0)

```
<!ELEMENT  exam                ( item-info, ce:floats?, simple-
                                 head, ( ce:exam-answers | ce:exam-
                                 questions )+ )>
<!ATTLIST  exam
           xmlns               CDATA            #FIXED %ESJA.xmlns;
           version             CDATA            #FIXED '5.2'
           xmlns:ce            CDATA            #FIXED %ESCE.xmlns;
           xmlns:sa            CDATA            #FIXED %ESSA.xmlns;
           xmlns:sb            CDATA            #FIXED %ESSB.xmlns;
           xmlns:xlink         CDATA            #FIXED %XLINK.xmlns;
           xml:lang            %iso639;         'en'
           docsubtype          ( exm|err )      "exm">
```

Model (JA DTD 5.4.0)

```
<!ELEMENT  exam                ( item-info, ce:floats?, simple-
                                 head, ( ce:exam-answers | ce:exam-
                                 questions )+ )>
<!ATTLIST  exam
           xmlns               CDATA            #FIXED %ESJA.xmlns;
           version             CDATA            #FIXED '5.4'
           xmlns:ce            CDATA            #FIXED %ESCE.xmlns;
           xmlns:sa            CDATA            #FIXED %ESSA.xmlns;
           xmlns:sb            CDATA            #FIXED %ESSB.xmlns;
```

```
          xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
          xml:lang             %iso639;           'en'
          docsubtype           ( exm|err )        "exm">
```

Model (JA DTD 5.5.0)

```
<!ELEMENT  exam                ( item-info, ce:floats?, simple-
                                 head, ( ce:exam-answers | ce:exam-
                                 questions )+ )>
<!ATTLIST  exam
          xmlns                CDATA              #FIXED %ESJA.xmlns;
          version              CDATA              #FIXED '5.5'
          xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
          xmlns:sa             CDATA              #FIXED %ESSA.xmlns;
          xmlns:sb             CDATA              #FIXED %ESSB.xmlns;
          xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
          xml:lang             %iso639;           'en'
          docsubtype           ( exm|err )        "exm">
```

Model (JA DTD 5.6.0)

```
<!ELEMENT  exam                ( item-info, ce:floats?, simple-
                                 head, ( ce:exam-answers | ce:exam-
                                 questions )+ )>
<!ATTLIST  exam
          xmlns                CDATA              #FIXED %ESJA.xmlns;
          version              CDATA              #FIXED '5.6'
          xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
          xmlns:sa             CDATA              #FIXED %ESSA.xmlns;
          xmlns:sb             CDATA              #FIXED %ESSB.xmlns;
          xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
          xml:lang             %iso639;           'en'
          docsubtype           ( exm|err )        "exm">
```

Description

The element `exam` is used to structure an examination article.

Usage

The element `exam` is one of the top-level elements (doctypes) of the JA DTD. It is used for structuring examinations. Examinations, e.g. for continuous medical education (CME), contain questions and answers. They can occur in the `tail` of an `article` but also have an independent existence.

There are several attributes of the element, as follows.

- The mandatory attribute `docsubtype` contains the publication item type (p. 56). The values `exm` and `err` are allowed.
- The attribute `xml:lang` specifies the language in which the article is written (default English, `en`). See ISO 639 set of entities (p. 192) for an overview of the allowed language codes.
- The fixed attribute `xmlns` sets the default namespace for JA elements, and the other fixed attributes beginning with `xmlns:` set the prefix and the namespace of elements used in the DTD, e.g. those of the common element pool (`xmlns:ce`, `xmlns:sa` and `xmlns:sb`) and of the XLink standard (`xmlns:xlink`). Since these attributes are fixed, they need not be specified as they are inferred by the parser.
- `version` is fixed to the first two digits of the version of the DTD.

Version history

In JA DTDs 5.0.1 and 5.0.2, `xml:lang` could only adopt the values English (`en`, default) French (`fr`), German (`de`), Portuguese (`pt`), Russian (`ru`), Spanish (`es`).

As of JA DTD 5.1.0, the value `err` is allowed for `docsubtype`.

See also

`article`, `book-review`, `simple-article`, `ce:exam-questions`

head

Declaration

Model (JA DTD 5.0.1)

```
<!ELEMENT  head                ( ce:article-footnote*, ce:dochead?,
                                 ce:title, ce:subtitle?, ( ce:alt-
                                 title, ce:alt-subtitle? )*,
                                 ce:presented?, ce:dedication?,
                                 ce:author-group+, ce:date-received?,
                                 ce:date-revised*, ce:date-accepted?,
                                 ce:miscellaneous?, ce:abstract*,
                                 ce:keywords*, ce:stereochem* )>
```

Model (JA DTD 5.0.2)

```
<!ELEMENT  head                ( ce:article-footnote*, ce:markers?,
                                 ce:dochead?, ce:title, ce:subtitle?,
                                 ( ce:alt-title, ce:alt-subtitle? )*,
                                 ce:presented?, ce:dedication?,
                                 ce:author-group+, ce:date-received?,
                                 ce:date-revised*, ce:date-accepted?,
                                 ce:miscellaneous?, ce:abstract*,
                                 ce:keywords*, ce:stereochem* )>
```

Model (JA DTD 5.1.0, JA DTD 5.2.0)

```
<!ELEMENT  head                ( ce:article-footnote*, ce:markers?,
                                 ce:dochead?, ce:label?, ce:title,
                                 ce:subtitle?, ( ce:alt-title,
                                 ce:alt-subtitle? )*, ce:presented?,
                                 ce:dedication?, ce:author-group+,
                                 ce:date-received?, ce:date-
                                 revised*, ce:date-accepted?,
                                 ce:miscellaneous?, ce:abstract*,
                                 ce:keywords*, ce:stereochem* )>
```

Model (JA DTD 5.4.0, JA DTD 5.5.0)

```
<!ELEMENT  head                ( ce:article-footnote*, ce:markers?,
                                 ce:dochead?, ce:label?, ce:title,
                                 ce:subtitle?, ( ce:alt-title,
                                 ce:alt-subtitle? )*, ce:presented?,
                                 ce:dedication?, ce:author-group+,
                                 ce:date-received?, ce:date-
                                 revised*, ce:date-accepted?,
                                 ce:miscellaneous*, ce:abstract*,
                                 ce:keywords*, ce:stereochem* )>
```

Model (JA DTD 5.6.0)

```
<!ELEMENT  head                ( ce:article-footnote*, ce:markers?,
                                 ce:dochead?, ce:label?, ce:title,
                                 ce:subtitle?, ( ce:alt-title, ce:alt-
                                 subtitle? )*, ce:short-title?,
                                 ce:presented?, ce:dedication?,
                                 ce:author-group+, ce:date-received?,
                                 ce:date-revised*, ce:date-accepted?,
                                 ce:miscellaneous*, ce:abstract*,
                                 ce:keywords*, ce:stereochem*,
                                 ce:data-availability? )>
```

Description

The element head contains the head or frontmatter of an article.

Usage

The head of an article consists of the article footnotes (ce:article-footnote), markers (ce:markers), the document heading (ce:dochead), a label (e.g., "Chapter 7") (ce:label), the article title and subtitle (ce:title and ce:subtitle), a sequence of titles and subtitles in an alternative language (ce:alt-title and ce:alt-subtitle), a short version of the title (ce:short-title), presented-by and dedicated-to information (ce:presented and ce:dedication), the author groups (ce:author-group), article history (ce:date-received, ce:date-revised, ce:date-accepted and ce:miscellaneous) abstracts of various classes, each in several possible languages (ce:abstract), keywords and classification codes (ce:keywords), stereochemistry abstracts (ce:stereochem), and a data availability statement (ce:data-availability).

An example of an article opening is shown in Figs. 4 and 5.

The head differs from a simple-head in that the title (ce:title) and the author group (ce:author-group) are mandatory.

Version history

Subelement ce:markers was introduced in JA DTD 5.0.2. Subelement ce:label was introduced in JA DTD 5.1.0.

In JA DTD 5.4.0 the occurrence indicator for ce:miscellaneous changed from ? to *.

In JA DTD 5.6.0 subelements ce:short-title and ce:data-availability were introduced.

Light reading

The complete head is part of HEAD-ONLY and HEAD-AND-TAIL files. A CONTENTS-ENTRY-ONLY file can only contain ce:article-footnote, ce:title and ce:subtitle, and within ce:author-group only ce:author and ce:collaboration.

See also

book-review-head, simple-head

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SENSORS AND ACTUATORS A PHYSICAL

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Electroforming of 3D microstructures on highly structured surfaces ☆

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Abstract

Electrodeposition of photoresist on highly structured surfaces is combined with electroplating to fabricate three new types of advanced 3D metal microstructures. In one application, electroplated nickel cantilever arrays are formed on the sloped sidewalls of KOH etched silicon. The cantilevers are released by sacrificial etching of copper. In another application it is shown how KOH etched silicon V-grooves can be patterned by electrodeposited photoresist to generate versatile 3D electroforming moulds. To demonstrate the potential of this technology, an innovative all-nickel cantilever structure with V-shaped cross section and integrated reflection mirror for optical readout has been fabricated. Cantilevers with V-cross section can be designed to have significantly larger out of plane bending stiffness or higher resonant frequency compared to rectangular cantilevers with similar dimensions. A third application uses electrodeposited photoresist to fabricate copper solenoids on an oxidised silicon support. © 2000 Elsevier Science S.A. All rights reserved.

Keywords: Electroplating; Electrodeposited photoresist; 3D fabrication; Cantilevers; Microcoils

1. Introduction

Conventional photoresist spin coating is an inherently planar technology and does not allow for conformal coating of highly structured surfaces. The advent of electrodeposited (ED) photoresists has made such conformal coatings possible. Due to the self-stopping deposition chemistry, ED resist can coat very uneven surfaces with a uniform layer thickness. The as-deposited resist film has a low water content and therefore only a small tendency to flow. Exposure can be carried out using standard UV mask aligners. Recently, X-ray exposure has also been employed, yielding very high pattern resolution at large mask gaps [1].

The above mentioned advantages of conformal coating have already resulted in a number of MEMS applications such as wafer feed-through leads [2,3], acoustic hole formation on the bottom of a KOH etched back plate for a condenser microphone [4], and patterning of 45° angled silicon mirrors [5]. The major drawback of ED resist is that only conducting surfaces can be coated. This might render it useless for applications where a conductive layer can not be applied. In electroplating processes however, a conductive seed layer is already present, and ED resist can easily be adapted as a plating mould. Since both electrodeposition and electroplating processes have the ability of covering complex topographies, a combination of these has great potential and has not yet been fully explored.

This paper presents three different demonstrations of how electrodeposition of photoresist on highly structured surfaces can be combined with electroplating to form new advanced metallic 3D structures. Hitherto, no releasing of microstructures defined by ED resist has been performed. Two of the demonstrators therefore show how novel released nickel cantilevers can be electroformed using ED photoresist moulds on non-planar surfaces, thus adding a new degree of freedom to microsystem design. The third application demonstrates an alternative fabrication of microsolenoids, made possible by ED moulds. All three

☆ This manuscript is based on a presentation (No. 2A2.4) delivered at the 10th International Conference on Solid-State Sensors and Actuators (Transducers '99). The title of the presentation was ''Improved Piezo-Resistive Sensor using Novel Nickel-Induced Laterally Crystallized Polycrystalline Silicon.''

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Figure 4: Example of an article opening. Its XML coding can be found in Fig. 5.

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE article
  PUBLIC "-//ES//DTD full length article DTD version 5.0.1//EN//XML"
  "art501.dtd" [<!ENTITY loc1 SYSTEM "gr1" NDATA IMAGE>]>
<article docsubtype="fla">
<item-info>
  <jid>SNA</jid><aid>123</aid><ce:pii>S0924-4247(00)00346-0</ce:pii>
  <ce:doi>10.1016/S0924-4247(00)00346-0</ce:doi>
  <ce:copyright type="full-transfer" yr="2000">Elsevier
    Science S.A.</ce:copyright>
</item-info>
<head>
  <ce:article-footnote><ce:label>&z.star;</ce:label>
    <ce:note-para id="np1">This manuscript is based on a presentation
      (No. 2A2.4) delivered at the 10th International
      Conference ...</ce:note-para>
  </ce:article-footnote>
  <ce:title id="t1">Electroforming of 3D microstructures on highly
    structured surfaces</ce:title>
  <ce:author-group id="aug1">
    <ce:author id="au1" author-id="S0924424700003460-f05c522a646b768dbb52d07bde742250">
      <ce:given-name>L.S.</ce:given-name><ce:surname>Johansen</ce:surname>
      <ce:cross-ref id="cr1" refid="aff1"><ce:sup>a</ce:sup></ce:cross-ref>
      <ce:cross-ref id="cr2" refid="cor1"><ce:sup>*</ce:sup></ce:cross-ref>
      <ce:e-address id="ea1" type="email">lsj@mic.dtu.dk</ce:e-address>
    </ce:author>
    <ce:author id="au2" author-id="S0924424700003460-401b198351e5dce75dacd651a5d736bf">
      <ce:given-name>M.</ce:given-name><ce:surname>Ginnerup</ce:surname>
      <ce:cross-ref id="cr3" refid="aff1"><ce:sup>a</ce:sup></ce:cross-ref>
    </ce:author>
    <ce:author id="au3" author-id="S0924424700003460-8a409bd26ad44ec9639ee4e20d1804a7">
      <ce:given-name>P.T.</ce:given-name><ce:surname>Tang</ce:surname>
      <ce:cross-ref id="cr4" refid="aff2"><ce:sup>b</ce:sup></ce:cross-ref>
    </ce:author>
    <ce:author id="au4" author-id="S0924424700003460-0d24ea876ff9b7005b48c1fa438fabad">
      <ce:given-name>N.</ce:given-name><ce:surname>Löchel</ce:surname>
      <ce:cross-ref id="cr5" refid="aff3"><ce:sup>c</ce:sup></ce:cross-ref>
      <ce:cross-ref id="cr6" refid="fn1"><ce:sup>1</ce:sup></ce:cross-ref>
    </ce:author>
    <ce:affiliation id="aff1"><ce:label>a</ce:label>
      <ce:textfn>Microelectronics Centre, Technical University of
        Denmark, Bldg. 345 East, DK-2800 Lyngby, Denmark</ce:textfn>
        <sa:affiliation>
          <sa:organization>Microelectronics Centre</sa:organization>
          <sa:organization>Technical University of Denmark</sa:organization>
          <sa:address-line>Bldg. 345 East</sa:address-line>
          <sa:city>Lyngby</sa:city><sa:postal-code>DK-2800</sa:postal-code>
          <sa:country>Denmark</sa:country>
        </sa:affiliation>
    </ce:affiliation>
    <ce:affiliation id="aff2"><ce:label>b</ce:label>
      <ce:textfn>Department of Manufacturing Engineering, Technical
        University of Denmark, Bldg. 204, DK-2800 Lyngby, Denmark</ce:textfn>
```

```
        <sa:affiliation>
          <sa:organization>Department of Manufacturing
            Engineering</sa:organization>
          <sa:organization>Technical University of Denmark</sa:organization>
          <sa:address-line>Bldg. 204</sa:address-line>
          <sa:city>Lyngby</sa:city>
          <sa:postal-code>DK-2800</sa:postal-code>
          <sa:country>Denmark</sa:country>
        </sa:affiliation>
    </ce:affiliation>
    <ce:affiliation id="aff3"><ce:label>c</ce:label>
      <ce:textfn>Fraunhofer-Institut für Siliziumtechnologie, Dillenburger
        Straße 53, D-14199 Berlin, Germany</ce:textfn>
        <sa:affiliation>
          <sa:organization>Fraunhofer-Institut für
            Siliziumtechnologie</sa:organization>
          <sa:address-line>Dillenburger Straße 53</sa:address-line>
          <sa:city>Berlin</sa:city>
          <sa:postal-code>D-14199</sa:postal-code>
          <sa:country>Germany</sa:country>
        </sa:affiliation>
    </ce:affiliation>
    <ce:correspondence id="cor1"><ce:label>*</ce:label>
      <ce:text id="txt1">Corresponding author. Tel.: +45-45-25-57-66/00;
        fax: +45-45-88-77-62.</ce:text>
    </ce:correspondence>
    <ce:footnote id="fn1"><ce:label>1</ce:label>
      <ce:note-para id="np2">B. Löchel is now with BESSY, Anwenderzentrum
        Mikrotechnik, Albert Einstein Straße 15, D-12489 Berlin,
        Germany.</ce:note-para>
    </ce:footnote>
  </ce:author-group>
  <ce:date-received day="7" month="6" year="1999"/>
  <ce:date-revised day="8" month="12" year="1999"/>
  <ce:date-accepted day="21" month="12" year="1999"/>
  <ce:abstract id="abs1">
    <ce:section-title id="st1">Abstract</ce:section-title>
    <ce:abstract-sec id="abss1"><ce:simple-para id="sp1">Electrodeposition
      of photoresist on highly ... oxidised silicon
      support.</ce:simple-para></ce:abstract-sec>
  </ce:abstract>
  <ce:keywords id="kwds1"><ce:keyword id="kw1">Electroplating</ce:keyword>
    <ce:keyword id="kw2">Electrodeposited photoresist</ce:keyword>
    <ce:keyword id="kw3">3D fabrication</ce:keyword>
    <ce:keyword id="kw4">Cantilevers</ce:keyword>
    <ce:keyword id="kw5">Microcoils</ce:keyword></ce:keywords>
</head>
<body>
  <ce:sections>
    <ce:section id="sec1"><ce:label>1</ce:label>
      <ce:section-title id="st2">Introduction</ce:section-title>
      <ce:para id="p1">Conventional photoresist spin coating is an ...
```

Figure 5: XML of the article opening shown in Fig. 4.

item-info

Declaration

Model (JA DTD 5.0.1–JA DTD 5.1.0)

```
<!ELEMENT  item-info            ( jid, aid?, ce:pii, ce:doi?,
                                  ce:document-thread?, ce:copyright,
                                  ce:doctopics?, ce:preprint? )>
```

Model (JA DTD 5.2.0)

```
<!ELEMENT  item-info            ( jid, aid?, ce:pii, ce:doi?,
                                  ce:document-thread?, %copyright;,
                                  ce:doctopics?, ce:preprint? )>
```

Model (JA DTD 5.4.0)

```
<!ELEMENT  item-info            ( jid, aid?, ce:article-number?,
                                  ce:pii, ce:doi?, ce:document-
                                  thread?, %copyright;, ce:doctopics?,
                                  ce:preprint? )>
```

Model (JA DTD 5.5.0, JA DTD 5.6.0)

```
<!ELEMENT  item-info            ( jid, aid?, ce:article-number?, ce:pii,
                                  ce:doi?, ce:document-thread?, %copy-
                                  right;, ce:doctopics?, ce:preprint?,
                                  ce:associated-resource* )>
```

Description

The element `item-info` contains information about the article.

Usage

Item information is contained within `item-info`. The Elsevier system code and article number are present in `jid` and `aid`. A second article ID can be present in `ce:article-number`. This is followed by the PII and optionally the DOI, `ce:pii` and `ce:doi`. The DOI is not always present, since it may be assigned only to items that will be published online.

A relationship with other articles can be made using `ce:document-thread`, e.g. to link an erratum to the original article or to create a discussion thread.

The mandatory `ce:copyright` contains the copyright owner and status of the item. It is followed by `ce:copyright-line` that contains the complete copyright line, which can be used verbatim in rendering. The latter element is optional for backward compatibility reasons; it is currently not required to be present.

The `ce:doctopics` can be used to place the article in a topic hierarchy.

Finally, the subelements `ce:preprint` and `ce:associated-resource` are to link the item with a preprint of the article residing on a preprint server and its associated research data, respectively.

For more information, see the subelements.

XML

```
<item-info>
  <jid>IPL</jid>
  <aid>4702</aid>
  <ce:pii>S0020-0190(12)00057-9</ce:pii>
  <ce:doi>10.1016/j.ipl.2012.02.008</ce:doi>
  <ce:copyright type="full-transfer"
    year="2012">Elsevier B.V.</ce:copyright>
</item-info>
```

Version history

In JA DTD 5.2.0 the ce:copyright element was replaced by the %copyright; entity. This entity contains the ce:copyright-line element.

Element ce:article-number was added in JA DTD 5.4.0. Elements ce:preprint and ce:associated-resource were added in JA DTD 5.5.0.

jid

Declaration

Model (JA DTD 5.0.1–JA DTD 5.6.0)

```
<!ELEMENT  jid                    ( %string.data; )*>
```

Description

The element jid contains the Elsevier system code of the journal.

See also

aid, ce:pii, ce:doi

simple-article

Declaration

Model (JA DTD 5.0.1, JA DTD 5.0.2)

```
<!ELEMENT  simple-article        ( item-info, ce:floats?, simple-head,
                                   body?, simple-tail? )>
<!ATTLIST  simple-article
           xmlns                 CDATA             #FIXED %ESJA.xmlns;
           version               CDATA             #FIXED '5.0'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:sb              CDATA             #FIXED %ESSB.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %language;        'en'
           docsubtype            %docsubtype;      #REQUIRED>
```

Model (JA DTD 5.1.0)

```
<!ELEMENT  simple-article        ( item-info, ce:floats?, simple-head,
                                   body?, simple-tail? )>
<!ATTLIST  simple-article
           xmlns                 CDATA             #FIXED %ESJA.xmlns;
           version               CDATA             #FIXED '5.1'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:sb              CDATA             #FIXED %ESSB.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %iso639;          'en'
           docsubtype            %docsubtype;      #REQUIRED>
```

Model (JA DTD 5.2.0)

```
<!ELEMENT  simple-article        ( item-info, ce:floats?, simple-head,
                                   body?, simple-tail? )>
<!ATTLIST  simple-article
           xmlns                 CDATA             #FIXED %ESJA.xmlns;
           version               CDATA             #FIXED '5.2'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:sa              CDATA             #FIXED %ESSA.xmlns;
           xmlns:sb              CDATA             #FIXED %ESSB.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %iso639;          'en'
           docsubtype            %docsubtype;      #REQUIRED>
```

Model (JA DTD 5.4.0)

```
<!ELEMENT  simple-article        ( item-info, ce:floats?, simple-head,
                                   body?, simple-tail? )>
<!ATTLIST  simple-article
           xmlns                 CDATA             #FIXED %ESJA.xmlns;
           version               CDATA             #FIXED '5.4'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:sa              CDATA             #FIXED %ESSA.xmlns;
           xmlns:sb              CDATA             #FIXED %ESSB.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %iso639;          'en'
           docsubtype            %docsubtype;      #REQUIRED>
```

Model (JA DTD 5.5.0)

```
<!ELEMENT  simple-article        ( item-info, ce:floats?, simple-head,
                                   body?, simple-tail? )>
<!ATTLIST  simple-article
           xmlns                 CDATA             #FIXED %ESJA.xmlns;
           version               CDATA             #FIXED '5.5'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:sa              CDATA             #FIXED %ESSA.xmlns;
           xmlns:sb              CDATA             #FIXED %ESSB.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %iso639;          'en'
           docsubtype            %docsubtype;      #REQUIRED>
```

Model (JA DTD 5.6.0)

```
<!ELEMENT  simple-article        ( item-info, ce:floats?, simple-head,
                                   body?, simple-tail? )>
<!ATTLIST  simple-article
           xmlns                 CDATA             #FIXED %ESJA.xmlns;
           version               CDATA             #FIXED '5.6'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:sa              CDATA             #FIXED %ESSA.xmlns;
           xmlns:sb              CDATA             #FIXED %ESSB.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %iso639;          'en'
           docsubtype            %docsubtype;      #REQUIRED>
```

Description

The element `simple-article` is used to structure a simple article.

Usage

The element `simple-article` is one of the top-level elements (doctypes) of the JA DTD. It is used for structuring "simple" articles, such as editorials, obituaries, prefaces, etc. Ironically, simple articles are more complicated in an XML sense, since enforcing strict rules is not always possible due to the great variety of appearances of these articles.

Note that even a full-length article might be structured as a simple article, e.g. when it is delivered as CONTENTS-ENTRY-ONLY.

There are several attributes of the element, as follows.

- The attribute `docsubtype` is the most important one. It is mandatory; its complete list of values is described in the section Publication item types (p. 56).
- The attribute `xml:lang` specifies the language in which the article is written (default English, `en`). See ISO 639 set of entities (p. 192) for an overview of the allowed language codes.
- The fixed attribute `xmlns` sets the default namespace for JA elements, and the other fixed attributes beginning with `xmlns:` set the prefix and the namespace of elements used in the DTD, e.g. those of the common element pool (`xmlns:ce`, `xmlns:sa` and `xmlns:sb`) and of the XLink standard (`xmlns:xlink`). Since these attributes are fixed, they need not be specified as they are inferred by the parser.
- `version` is fixed to the first two digits of the version of the DTD.

Version history

In JA DTDs 5.0.1 and 5.0.2, xml:lang could only adopt the values English (en, default) French (fr), German (de), Portuguese (pt), Russian (ru), Spanish (es).

See also

article, book-review, exam

simple-head

Declaration

Model (JA DTD 5.0.1)

```
<!ELEMENT  simple-head          ( ce:article-footnote*, ( ce:title
                                  | ( ce:dochead, ce:title? ) ),
                                  ce:subtitle?, ( ce:alt-title, ce:alt-
                                  subtitle? )*, ce:author-group*,
                                  ce:date-received?, ce:date-revised*,
                                  ce:date-accepted?, ce:miscellaneous?,
                                  ce:abstract*, ce:keywords* )>
```

Model (JA DTD 5.0.2)

```
<!ELEMENT  simple-head          ( ce:article-footnote*, ce:markers?,
                                  ( ce:title | ( ce:dochead,
                                  ce:title? ) ), ce:subtitle?,
                                  ( ce:alt-title, ce:alt-subtitle? )*,
                                  ce:author-group*, ce:date-received?,
                                  ce:date-revised*, ce:date-accepted?,
                                  ce:miscellaneous?, ce:abstract*,
                                  ce:keywords* )>
```

Model (JA DTD 5.1.0, JA DTD 5.2.0)

```
<!ELEMENT  simple-head          ( ce:article-footnote*, ce:markers?,
                                  ( ( ce:label?, ce:title ) |
                                  ( ce:dochead, ce:label?, ce:title? ) ),
                                  ce:subtitle?, ( ce:alt-title, ce:alt-
                                  subtitle? )*, ce:author-group*,
                                  ce:date-received?, ce:date-revised*,
                                  ce:date-accepted?, ce:miscellaneous?,
                                  ce:abstract*, ce:keywords* )>
```

Model (JA DTD 5.4.0, JA DTD 5.5.0)

```
<!ELEMENT  simple-head          ( ce:article-footnote*, ce:markers?,
                                  ( ( ce:label?, ce:title ) |
                                  ( ce:dochead, ce:label?, ce:title? ) ),
                                  ce:subtitle?, ( ce:alt-title, ce:alt-
                                  subtitle? )*, ce:author-group*,
                                  ce:date-received?, ce:date-revised*,
                                  ce:date-accepted?, ce:miscellaneous*,
                                  ce:abstract*, ce:keywords* )>
```

Model (JA DTD 5.6.0)

```
<!ELEMENT  simple-head          ( ce:article-footnote*, ce:markers?,
                                  ( ( ce:label?, ce:title ) |
                                  ( ce:dochead, ce:label?, ce:title? ) ),
                                  ce:subtitle?, ( ce:alt-title, ce:alt-
                                  subtitle? )*, ce:short-title?,
                                  ce:author-group*, ce:date-received?,
                                  ce:date-revised*, ce:date-accepted?,
                                  ce:miscellaneous*, ce:abstract*,
                                  ce:keywords*, ce:data-availability? )>
```

Description

The element simple-head contains the head or frontmatter of a “simple” article or an examination item, simple-article or exam.

Usage

The head of a simple article consists of the article footnotes (ce:article-footnote), markers (ce:markers), the document heading (ce:dochead), a label (e.g., “Chapter 7”) (ce:label), the article title and subtitle (ce:title, ce:subtitle), a sequence of titles and subtitles in an alternative language (ce:alt-title and ce:alt-subtitle), a short version of the title (ce:short-title), the author groups (ce:author-group), article history (ce:date-received, ce:date-revised, ce:date-accepted and ce:miscellaneous) abstracts of various classes, each in several possible languages (ce:abstract), keywords and classification codes (ce:keywords), and a data availability statement (ce:data-availability).

The simple-head differs from a head in that the title (ce:title) is mandatory in a head, whereas in a simple head there is at least a ce:dochead or a title; the author group (ce:author-group) is mandatory in a head; and in a simple head there is no presented by or dedicated to information and there are no stereochemistry abstracts.

Version history

Subelement ce:markers was introduced in JA DTD 5.0.2. Subelement ce:label was introduced in JA DTD 5.1.0.

In JA DTD 5.4.0 the occurrence indicator for ce:miscellaneous changed from ? to *.

In JA DTD 5.6.0 subelements ce:short-title and ce:data-availability were introduced.

Light reading

The complete head is part of HEAD-ONLY and HEAD-AND-TAIL files. A CONTENTS-ENTRY-ONLY file can only contain ce:article-footnote, ce:title and ce:subtitle, and within ce:author-group only ce:author and ce:collaboration.

See also

book-review-head, head

simple-tail

Declaration

Model (JA DTD 5.0.1, JA DTD 5.0.2)

```
<!ELEMENT  simple-tail          ( ce:bibliography?, ce:further-
                                  reading? )>
<!ATTLIST  simple-tail
           view                 %view;           'all'>
```

Model (JA DTD 5.1.0–JA DTD 5.6.0)

```
<!ELEMENT  simple-tail          ( ce:bibliography?, ce:further-reading?,
                                  ce:glossary?, ce:biography* )>
<!ATTLIST  simple-tail
           view                 %view;           'all'>
```

Description

The element simple-tail contains the tail of a simple article or book review.

Usage

The tail of a simple article or a book review is contained within simple-tail. This element consists of four subelements: an optional ce:bibliography (containing the bibliographic references) and an optional ce:further-reading (containing the further-reading list), a glossary (ce:glossary) and a number of biographies of the authors (ce:biography).

Version history

The subelements ce:glossary and ce:biography were added in JA DTD 5.1.0.

See also

tail

tail

Declaration

Model (JA DTD 5.0.1–JA DTD 5.6.0)

```
<!ELEMENT  tail                ( ce:bibliography?, ce:further-
                                 reading?, ce:glossary?, ce:biography*,
                                 ( ce:exam-answers | ce:exam-questions
                                 | ce:exam-reference )* )>
<!ATTLIST  tail
           view                %view;            'all'>
```

Description

The element tail contains the tail of an article.

Usage

The tail of an article or a book review is contained within tail. None of its constituents are mandatory, but the element must not be empty.

The tail consists of the bibliographic references (ce:bibliography), a further-reading list (ce:further-reading), a glossary (ce:glossary), a number of biographies of the authors (ce:biography), followed by a sequence of examination questions and answers, and references to earlier examinations (ce:exam-questions, ce:exam-answers, ce:exam-reference). For more information, see these elements.

See also

simple-tail

PITs: Journal article publication item types

The attribute `docsubtype` of the top-level elements of the journal article DTD contains the publication item type of the article. Its possible values are contained in `%docsubtype;` and are described here.

PIT	Short	Description
`abs`	Abstract	Abstract of a paper or oral presentation or poster, published as a separate item. A better name would be "very short communication". These mostly occur in fairly great numbers in conference proceedings, where not all authors are allowed to publish a full-length article. *Note.* Not to be confused with `lit` (*q.v.*). *Note.* `abs` refers to one single such thing.
`add`	Addendum	Publication item giving additional information regarding another publication item, mostly presenting additional results. *Note.* Needs a `ce:document-thread`.
`adv`	Advertisement	Advertisement (mostly commercial, but also including Elsevier's own).
`ann`	Announcement	Informative statement with a scope within the context of the publication in which it appears.
`brv`	Book review	Book review. *Note.* `brv` can only be assigned to a single book review, not to a collection of book reviews which appear under the heading "Book reviews".
`cal`	Calendar	List of forthcoming meetings, symposia, conferences and other events.
`chp`	Chapter	Complete chapter in a book series volume. Similar to `fla`.
`cnf`	Conference	Information about a conference (can be a description of the venue, but also a visit report of a scientist who has attended a conference). *Note.* A scientific article in a conference proceedings is not `cnf`.
`con`	Contents list	List of publication items published in issue(s) or volume(s) of the publication at hand. *Note.* This includes volume contents. This PIT is only rarely used, in case a list of contents requires an XML delivery and is handled as a contents entry.
`cor`	Correspondence	Letter to the editor or a reply to the letter. *Note.* The reply needs a `ce:document-thread`.
`cop`	Copyright	Item detailing the copyright of the work, containing the information traditionally found on the copyright page in the frontmatter.
`crp`	Case report	A detailed report of the symptoms, signs, diagnosis, treatment, and follow-up of an individual patient.
`dat`	Data article	Publication item describing data; "Data in Brief" articles.

PIT	Short	Description
dis	Discussion	Argumentative communication, like papers in a discussion, but also perspectives, commentaries, etc. *Note.* Subsequent discussion papers need a ce:document-thread.
dup	Duplicate	Tombstone article, duplicate of a published article. See ref. [25].
edb	Editorial board	List containing the scientific editors, the managing and executive editors, the board of directors, etc., of the publication.
edi	Editorial	From the (guest-) editor of the publication. Can be Foreword, Editorial, Guest-Editorial, Preface, etc.
eoc	Expression of Concern	An Expression of Concern sits somewhere between an Erratum and a Retraction and allows authors or editors to point out a minor form of scientific misconduct such as failure to fully report a conflict of interest.
err	Erratum	Article in which errors are reported that were made in an earlier publication in the same journal. Can be Erratum but also Corrigendum. *Note.* Needs a ce:document-thread.
exm	Examination	Examination or quiz, with questions and answers.
fla	Full-length article	Complete report on original research.
ind	Index	List of index terms, possibly cross-referenced against the location of occurrence. It can be an Author index, a Master index, a Subject index, a Materials index, etc.
ins	Insights	A publication item that is neither research article nor review of primary research; it is roughly comparable to an article in the popular science press.
lit	Literature alert	Publication item containing information on relevant literature. This includes lists of recently published books, and collections of abstracts of articles published, or to be published, elsewhere (in the same or another journal). *Note.* Such abstracts should not be confused with articles of type abs. Those are independent, small articles. These are sequences of abstracts of other articles whose bibliographic source is mentioned.
lst	List	List of figures, list of tables, etc.
mic	Micro article	A very short abstract-like article focusing on research data and methods.
mis	Miscellaneous	All publication items that do not fit in any of the other publication item types mentioned and that do not merit the introduction of a new type.
nws	News	Publication item containing new information relevant to the audience of the publication.
ocn	Other contents	Contents list of another, related journal. *Note.* Must be another journal.
osp	Original software publication	A publication item containing software or a description of software.

PIT	Short	Description
pgl	Practice guidelines	A report that describes guidelines for effective diagnosis or treatment of a medical condition. The report is generally authored by a society, government agency, or working group.
pnt	Patent report	Report on newly developed patents.
pro	Protocol	A publication item that provides the detailed procedures and materials needed to reproduce or replicate an experimental method. In essence, a Protocol is a regular article focussing on the materials and methods required to achieve a specified result.
prp	Personal report	Bit of a misnomer: it is in fact a report about one or more (living or deceased) persons, e.g. an obituary, a biography, an award ceremony, etc., but it can also include personal historical overviews or reminiscences of the author.
prv	Product review	Product review, i.e. a review of software, hardware, medical products, etc. *Note.* Not book reviews: see brv. Not conference review: see cnf.
pub	Publisher's note	Publisher's note, which is a message from the Publisher to the readers.
rem	Removal	Tombstone article, removed. The article has been retracted and its original text is completely removed from public access. See ref. [26].
req	Request for assistance	Publication item containing the description of a problem with an appeal to the audience for a solution.
ret	Retraction	Tombstone article, retracted. See ref. [26].
rev	Review article	Substantial overview of original research, usually with a comprehensive bibliography, often with a table of contents. *Note.* Not a book review: see brv.
rpl	Replication Studies	Replication Study. A replication of a scientific study.
sco	Short communication	Short report or announcement of research, usually claiming certain results, usually with a shorter publication time than other papers in the same publication. Appear under many names, such as letter papers, preliminary notes, notes, etc.
ssu	Short survey	Short or mini-review, in appearance much like a short full-length article.
tpg	Title page	Title page.
vid	Video article	Publication item whose prime content consists of a video accompanied by a description of that video.

Chapter 4
Serial Issue DTD

This chapter contains an alphabetic listing of the elements in the serial issue DTD, SI DTD. This DTD is used for defining journal issues and book series volumes, i.e, it captures the exact composition of the issue in the form of pointers to the individual items, and it captures the issue's properties such as title, (guest) editors, cover date, etc. A document structured with the SI DTD is often called an *issue hub*.

The serial issue DTD defines one top-level element: `serial-issue`.

CEP version used in this DTD

The serials issue DTD versions described in this documentation use different versions of the common element pool, as follows:

Serials issue DTD	Common element pool
SI DTD 5.1.0	CEP 1.1.3
SI DTD 5.2.0	CEP 1.2.0
SI DTD 5.4.0	CEP 1.4.0
SI DTD 5.5.0	CEP 1.5.0
SI DTD 5.6.0	CEP 1.6.0

To align the version numbers of the SI DTD, the JA DTD, the Book DTD and the CEP, versions 5.3.0 of the SI DTD and 1.3.0 of the CEP were not created.

abbr-name

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  abbr-name            ( %richstring.data; )*>
```

Description

The element abbr-name contains the official abbreviated name of a conference.

Usage

See conference-info.

conference-info

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  conference-info       ( full-name?, abbr-name?, venue?,
                                   date-range? )>
```

Description

The element conference-info contains information about a conference.

Usage

Issues can be related to a conference or contain the proceedings of a conference. In that case, information about the conference is captured with conference-info.

The full-name contains the full name of the conference if it is different from the title of the issue. Often, a conference also has an commonly known abbreviated name, abbr-name. The location where the conference took place is captured with venue. A subelement date-range is provided for the date or date range when the conference took place. The four subelements are optional, but conference-info must not be empty.

XML

```
<conference-info>
   <full-name>Foundations of Software Science
      and Computation Structures</full-name>
   <abbr-name>FOSSACS 2001</abbr-name>
   <venue>Genova, Italy</venue>
   <date-range>
      <start-date>20010402</start-date>
      <end-date>20010404</end-date>
   </date-range>
</conference-info>
```

XML

```
<conference-info>
   <full-name>Periglacial Geomorphology at
      the Beginning of the 21st Century</full-name>
   <venue>Tokyo, Japan</venue>
   <date-range>
      <start-date>20010825</start-date>
   </date-range>
</conference-info>
```

See also

date-range

cover-date

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  cover-date            ( date-range )>
```

Description

The element cover-date contains the cover date of the issue.

Usage

The cover date of the issue is contained within cover-date in the form of a date-range.

It is not always clear for each publication what the cover date is. Some serial publications do not carry a cover date on the cover of their printed issues. ScienceDirect®, however, displays the cover date prominently with each issue in the issue list for each journal or book series, and uses it to determine the publication year when it generates the bibliographic data for the items in the issue. For lack of a more precise definition, the date displayed there is the cover date contained in this element.

cover-image

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  cover-image          ( ce:figure )>
```

Description

The element cover-image contains the cover image of a serial issue.

Usage

Cover images are captured with the element cover-image.

Structurally, the cover image is associated with the issue using the ce:figure, which in this case may not be nested within itself. The ce:link element provides the link to the cover image file. An optional caption explaining the featured cover image, copyright information, etc., can be added, using the features of ce:figure.

XML

```
<cover-image>
  <ce:figure id="fig1">
    <ce:label>Functional Specificity of Small GTPases</ce:label>
    <ce:caption id="c1">
      <ce:simple-para id="sp1">The cover shows eight of the distinct
        cell morphology classes that were induced by expression of
        constitutively active Ras superfamily small GTPases. NIH3T3
        fibroblasts were transfected with 100 different mutant small
        GTPases and the observed morphologies were grouped into
        different classes. The cell in the middle is a cell
        transfected with a control construct. For further
        information, please see the article by Heo and Meyer in
        this issue (pp. <ce:inter-ref id="ir54" xlink:href=
        "doi:10.1016/S0092-8674(03)00307-6">369-381</ce:inter-ref>).

      </ce:simple-para>
    </ce:caption>
    <ce:link locator="cover" xlink:type="simple" xlink:role=
      "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.7"
      xlink:href="pii:S0735065115X00082/cover"/>
  </ce:figure>
</cover-image>
```

Presentation

See Figure 6 (p. 82) for a possible representation.

See also

ce:figure

date-range

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  date-range            ( start-date, end-date? )>
```

Description

The element date-range contains the date range in EFFECT date format.

Usage

The element date-range consists of a start-date and an optional end-date, both in EFFECT format.

The EFFECT date format has one of three EFFECT date *forms*.

- YYYY, denoting a year.
- YYYYMM, where YYYY is a year, and MM is a month, season or quarter. If MM ranges between 01 and 12, then it denotes a month (January to December). If MM ranges between 21 and 24, then it denotes a season (21: Spring, 22: Summer, 23: Autumn, 24: Winter). If MM ranges between 31 and 34, then it denotes a quarter (31: 1st Quarter, 32: 2nd Quarter, 33: 3rd Quarter, 34: 4th Quarter).
- YYYYMMDD, denoting a day.

The end-date must be of the same EFFECT date form as the start-date.

There is also an EFFECT date *range* format, containing a slash. This must not be used.

XML

```
<date-range><start-date>2003</start-date></date-range>
<date-range><start-date>200305</start-date></date-range>
<date-range><start-date>200331</start-date></date-range>
<date-range><start-date>20040229</start-date></date-range>
<date-range>
   <start-date>200305</start-date>
   <end-date>200307</end-date>
</date-range>
<date-range>
   <start-date>20030530</start-date>
   <end-date>20030601</end-date>
</date-range>
<date-range>
   <start-date>20030530</start-date>
   <end-date>20030531</end-date>
</date-range>
```

Presentation

2003
May 2003
First quarter 2003
29 February 2003
May – July 2003
30 May – 1 June 2003
30–31 May 2003

editors

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  editors              ( %richstring.data; )*>
```

Description

The element editors contains the names of the (guest) editors of a serial issue in an unstructured format.

Usage

See title-editors-group.

XML

```
<editors>P. Johnson and K.S. Agarwal</editors>
```

This element is provided for backward compatibility with the EFFECT dataset.toc dataset description file.

end-date

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  end-date              ( %string.data; )*>
```

Description

The element end-date contains the end date of a date range in EFFECT format.

Usage

See date-range.

full-name

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  full-name            ( %richstring.data; )*>
```

Description

The element full-name contains the full name of a conference if it is different from the issue title.

Usage

See conference-info.

iss-first

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  iss-first            ( %string.data; )*>
```

Description

The element iss-first contains the issue number, or the first issue number in an issue number range, of a serial issue.

Usage

See volume-issue-number.

iss-last

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  iss-last              ( %string.data; )*>
```

Description

The element iss-last contains the last issue number in an issue number range of a serial issue.

Usage

See volume-issue-number.

issue-body

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  issue-body            ( ( ce:include-item | issue-sec )+ )>
```

Description

The element issue-body provides the link between the issue and the items in that issue. It is both a “hub” and the source for the table of contents.

Usage

The issue body consist of all items that belong to the issue. These items are referred to via the generic ce:include-item element. Thus it acts as hub for the whole issue, but it also acts as the table of contents of the issue. The items can be grouped in sections, issue-sec, that must have a section title. These sections can be nested. In this way, second-, third- and fourth-order headings within the table of contents are supported. Headings of higher order than that, though possible according to the DTD, are not allowed. In files structured according to the SI DTD, the title subelements of ce:include-item are not used.

XML

```
<issue-body>
   <issue-sec id="is1">
      <ce:section-title id="st1">Nuclear Structure
         and Dynamics</ce:section-title>
      <ce:include-item>
         <ce:pii>S0375-9474(02)01400-8</ce:pii>
         <ce:doi>10.1016/S0375-9474(02)01400-8</ce:doi>
         <ce:pages>
            <ce:first-page>355</ce:first-page>
            <ce:last-page>390</ce:last-page>
         </ce:pages>
      </ce:include-item>
      ...
      <ce:include-item>
         <ce:pii>S0375-9474(02)01372-6</ce:pii>
         <ce:doi>10.1016/S0375-9474(02)01372-6</ce:doi>
         <ce:pages>
            <ce:first-page>463</ce:first-page>
            <ce:last-page>477</ce:last-page>
         </ce:pages>
      </ce:include-item>
   </issue-sec>
   <issue-sec id="is2">
      <ce:section-title id="s2">Hadronic Physics</ce:section-title>
      <ce:include-item>
         <ce:pii>S0375-9474(02)01371-4</ce:pii>
         <ce:doi>10.16/S0375-9474(02)01371-4</ce:doi>
         <ce:pages>
            <ce:first-page>481</ce:first-page>
```

```
            <ce:last-page>501</ce:last-page>
         </ce:pages>
      </ce:include-item>
      ...
      <ce:include-item>
         <ce:pii>S0375-9474(02)01403-3</ce:pii>
         <ce:doi>10.1016/S0375-9474(02)01403-3</ce:doi>
         <ce:pages>
            <ce:first-page>632</ce:first-page>
            <ce:last-page>640</ce:last-page>
         </ce:pages>
      </ce:include-item>
   </issue-sec>
   <issue-sec id="is3">
      <ce:section-title id="st3">Intermediate and High Energy
         Heavy Ion Physics</ce:section-title>
      <ce:include-item>
         <ce:pii>S0375-9474(02)01399-4</ce:pii>
         <ce:doi>10.1016/S0375-9474(02)01399-4</ce:doi>
         <ce:pages>
            <ce:first-page>643</ce:first-page>
            <ce:last-page>670</ce:last-page>
         </ce:pages>
      </ce:include-item>
   </issue-sec>
   <issue-sec id="is4">
      <ce:section-title id="st4">Nuclear Astrophysics</ce:section-title>
      <ce:include-item>
         <ce:pii>S0375-9474(02)01397-0</ce:pii>
         <ce:doi>10.1016/S0375-9474(02)01397-0</ce:doi>
         <ce:pages>
            <ce:first-page>673</ce:first-page>
            <ce:last-page>695</ce:last-page>
         </ce:pages>
      </ce:include-item>
   </issue-sec>
   <issue-sec id="is5">
      <ce:section-title id="st5">Errata</ce:section-title>
      <ce:include-item>
         <ce:pii>S0375-9474(02)01363-5</ce:pii>
         <ce:doi>10.1016/S0375-9474(02)01363-5</ce:doi>
         <ce:pages>
            <ce:first-page>696</ce:first-page>
            <ce:last-page>698</ce:last-page>
         </ce:pages>
      </ce:include-item>
   </issue-sec>
   <ce:include-item>
      <ce:pii>S0375-9474(02)01580-4</ce:pii>
      <ce:doi>10.1016/S0375-9474(02)01580-4</ce:doi>
      <ce:pages>
         <ce:first-page>699</ce:first-page>
         <ce:last-page>727</ce:last-page>
      </ce:pages>
```

```
    </ce:include-item>
</issue-body>
```

Presentation

Add-on items, short commentaries that follow an item, are included with `ce:include-item`s. The main item does not possess a `role` attribute. The add-on items have the `role` attribute set to `add-on`.

The element `ce:include-item` possesses a `view` attribute. This can be used to include different items depending on the view. See the section on Views.

If an item comprises just one page, the `ce:last-page` is not present.

Rendering notes

It can happen that an `issue-sec` is not followed by another `issue-sec` but by further `ce:include-item`s. In the example given above, this is the case for the "Cumulative author index" at the end of the issue. Visual separation is required in order to prevent the impression that the item belongs to be preceding `issue-sec`.

issue-data

Declaration

Model (SI DTD 5.1, SI DTD 5.2)

```
<!ELEMENT  issue-data          ( cover-date, ce:pages+, cover-image?,
                                 issue-designation?, title-editors-
                                 group* )>
```

Model (SI DTD 5.4–SI DTD 5.6)

```
<!ELEMENT  issue-data          ( cover-date, ce:pages*, cover-image?,
                                 issue-designation?, title-editors-
                                 group* )>
```

Description

The element issue-data contains the data belonging to the issue itself.

Usage

The element issue-data consists of cover-date, the mandatory cover date; ce:pages, an optional series of one or more page ranges, detailing the page ranges that occur in the issue; cover-image, an optional image of the (paper) issue's cover; issue-designation, an optional subtitle or section of the serial publication; and optional title, editors, conference information, etc., in title-editors-group.

The page ranges of the issue, captured with a series of ce:pages, include only the "interior" page ranges of the serial issue, unless front- or backmatter ranges are of great importance.

XML

```
<ce:pages>
  <ce:first-page>1</ce:first-page>
  <ce:last-page>300</ce:last-page>
</ce:pages>
<ce:pages>
  <ce:first-page>L1</ce:first-page>
  <ce:last-page>L38</ce:last-page>
</ce:pages>
```

Presentation

Possible rendering: *Pages 1–300, L1–L38*

In case the articles in the issue do not have page numbers, the issue also has no page numbers. In that case ce:pages does not occur.

A journal issue or book series volume can be associated with more than one conference, e.g. two thin special issues in one issue. For this reason there can be more than one title-editors-group. It is, however, impossible to indicate which items in the serial issue are associated with which title and editors group — this can only be made clear by using meaningful issue-secs.

For more information about the remaining subelements of issue-data, see these subelements.

Version history

In the 5.4.0 DTD the occurrence indicator of element `ce:pages` was changed from + to *.

issue-designation

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  issue-designation     ( %richstring.data; )*>
```

Description

The element issue-designation contains a subtitle or section of the serial publication to which the issue belongs.

Usage

For some publications, the issues belong to a certain section or "sub-journal" or "sub-series". The element issue-designation can be used to store that information.

XML

```
<issue-designation>Logic, semantics and theory of
  programming</issue-designation>
```

XML

```
<issue-designation>Field Theory and
  Statistical Systems</issue-designation>
```

Explanation

The issues of the journal *Theoretical Computer Science* carry a subtitle "Algorithms, complexity and games" or "Logic, semantics and theory of programming". The issues of the journal *Nuclear Physics B* carry a subtitle "Field Theory and Statistical Systems", "Physical Mathematics" or "Particle Physics". This is the way to capture that property of the issue.

issue-info

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  issue-info            ( ce:pii, ce:doi?, jid, ce:issn,
                                   volume-issue-number, ce:isbn? )>
```

Description

The element issue-info contains the identifiers that uniquely identify the issue.

Usage

An issue in a serial publication has several equivalent identifiers that can be used to retrieve the issue.

An issue has its own "publishable item identifier", PII, stored within ce:pii. An optional digital object identifier, DOI can also be assigned to the issue, ce:doi. The issue PII may have an "X" in the first position of the five-digit component.

An alternative form of issue identification is by the Elsevier internal system code, called JID (an abbreviation of journal ID) and volume/issue number. The serial publication is identified in two ways: by code, jid and by the ISSN, ce:issn. In view of publication evolution and the importance of correctly assigning an issue to a publication, both are present. The volume/issue number is captured using the subelement volume-issue-number.

Finally, some serial publications assign ISBNs to their volumes or issues, e.g. in the case of all book series. The optional ce:isbn is used to store the ISBN.

XML

```
<issue-info>
  <ce:pii>S9999-9994(03)X7607-2</ce:pii>
  <jid>ENDEND</jid>
  <ce:issn>9999-9994</ce:issn>
  <volume-issue-number>
    <vol-first>31</vol-first>
    <iss-first>5</iss-first>
  </volume-issue-number>
</issue-info>
```

issue-sec

Declaration

Model (SI DTD 5.1)

```
<!ELEMENT  issue-sec          ( ce:section-title?, ( ce:include-item |
                                issue-sec )+ )>
<!ATTLIST  issue-sec
           id                 ID              #IMPLIED
           role               CDATA           #IMPLIED>
```

Model (SI DTD 5.2–SI DTD 5.6)

```
<!ELEMENT  issue-sec          ( ce:section-title?, ( ce:include-item |
                                issue-sec )+ )>
<!ATTLIST  issue-sec
           id                 ID              #IMPLIED
           role               CDATA           #IMPLIED
           group-id           IDREF           #IMPLIED>
```

Description

The element issue-sec is used to group items within the issue under a common heading.

Usage

Many issues contain a hierarchical structure of their items. This structure usually reveals itself in the table of contents, that may contain first-order headings or higher-order headings. This grouping of items is accomplished using the element issue-sec. It consists of a ce:section-title containing the heading, a number of included items and/or nested item sections.

An issue can contain one or more “special issues”. Additional properties of such an issue are captured in title-editors-group. The items in such an issue should be placed in an issue-sec which can then refer to a title-editors-group by means of its attribute group-id.

XML

```
<serial-issue>
  <issue-info>...</issue-info>
  <issue-data>
    ...
    <title-editors-group id="teg1">
      <ce:title id="t1">Fourth International Conference on Business
        Process Management (BPM 2006)</ce:title>
      <ce:subtitle id="st1">Four selected and extended papers</ce:subtitle>
      <ce:editors>...</ce:editors>
    </title-editors-group>
    <title-editors-group id="teg2">
      <ce:title id="t2">8th International Conference on Enterprise
        Information Systems (ICEIS' 2006)</ce:title>
      <ce:subtitle>Three selected and extended papers</ce:subtitle>
      <ce:editors>...</ce:editors>
    </title-editors-group>
```

```
    </issue-data>
    <issue-body>
      <ce:include-item>...</ce:include-item>
      <issue-sec group-id="teg1">
        <ce:section-title id="st1">Special section: Business Process
          Management (BPM 2006)</ce:section-title>
        <ce:include-item>...</ce:include-item>
        ...
      </issue-sec>
      <issue-sec group-id="teg2">
        <ce:section-title id="st2">Special section: Enterprise Information
          Systems (ICEIS' 2006)</ce:section-title>
        <ce:include-item>...</ce:include-item>
        ...
      </issue-sec>
      <issue-sec>
        <ce:section-title id="st3">Regular papers</ce:section-title>
        <ce:include-item>...</ce:include-item>
        ...
      </issue-sec>
    </issue-body>
  </serial-issue>
```

Although ce:section-title is declared optional in the DTD, it must always be present.

For more information, see issue-body.

Version history

The group-id attribute was added in version 5.2.0 of the DTD.

jid

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  jid                  ( %string.data; )*>
```

Description

The element jid contains the Elsevier system code of the serial publication.

See also

ce:pii, ce:doi

serial-issue

Declaration

Model (SI DTD 5.1)

```
<!ELEMENT  serial-issue          ( issue-info, issue-data, issue-body )>
<!ATTLIST  serial-issue
           xmlns                 CDATA             #FIXED %ESSI.xmlns;
           version               CDATA             #FIXED '5.1'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:sb              CDATA             #FIXED %ESSB.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %language;        'en'>
```

Model (SI DTD 5.2)

```
<!ELEMENT  serial-issue          ( issue-info, issue-data, issue-body )>
<!ATTLIST  serial-issue
           xmlns                 CDATA             #FIXED %ESSI.xmlns;
           version               CDATA             #FIXED '5.2'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:sb              CDATA             #FIXED %ESSB.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %iso639;          'en'>
```

Model (SI DTD 5.4)

```
<!ELEMENT  serial-issue          ( issue-info, issue-data, issue-body )>
<!ATTLIST  serial-issue
           xmlns                 CDATA             #FIXED %ESSI.xmlns;
           version               CDATA             #FIXED '5.4'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:sb              CDATA             #FIXED %ESSB.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %iso639;          'en'>
```

Model (SI DTD 5.5)

```
<!ELEMENT  serial-issue          ( issue-info, issue-data, issue-body )>
<!ATTLIST  serial-issue
           xmlns                 CDATA             #FIXED %ESSI.xmlns;
           version               CDATA             #FIXED '5.5'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:sb              CDATA             #FIXED %ESSB.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %iso639;          'en'>
```

Model (SI DTD 5.6)

```
<!ELEMENT  serial-issue          ( issue-info, issue-data, issue-body )>
<!ATTLIST  serial-issue
           xmlns                 CDATA             #FIXED %ESSI.xmlns;
           version               CDATA             #FIXED '5.6'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:sb              CDATA             #FIXED %ESSB.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %iso639;          'en'>
```

Description

The element `serial-issue` contains a serial issue.

Usage

The element `serial-issue` is the top-level element (single doctype) of the SI DTD. It is used for structuring serial issues. It captures the data of the issue, and acts as a "hub" for the items in the issue.

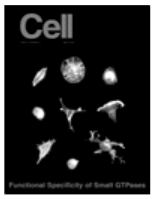
There are several attributes of the element, as follows.

- The attribute `xml:lang` specifies the language in which the issue hub is written (default English, `en`). See ISO 639 set of entities (p. 192) for an overview of the allowed language codes.
- The fixed attribute `xmlns` sets the default namespace for SI elements, and the other fixed attributes beginning with `xmlns:` set the prefix and the namespace of elements used in the DTD, e.g. those of the common element pool (`xmlns:ce` and `xmlns:sb`) and of the XLink standard (`xmlns:xlink`). Since these attributes are fixed, they need not be specified as they are inferred by the parser.
- `version` is fixed to `5.6`, i.e. the first two digits of the version of the DTD.

Figures 6 and 7 on the following pages show an example of a serial issue.

Figure 8 (p. 85) shows an example of a serial issue that uses article numbers. Note there is no `ce:pages` element.

TABLE OF CONTENTS



May 2, 2003: 113 (3)

"Functional Specificity of Small GTPases"
[Cover Caption]

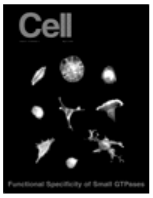
Browse Archive:

Previews	**Pages**
p53 and TGF-ß in Development: Prelude to Tumor Suppression? Malcolm Whitman and Frank McKeon **[Summary] [Full Text] [PDF]**	**275-276**
tRNA Structure Goes from L to » Paul Schimmel and Koji Tamura **[Summary] [Full Text] [PDF]**	**276-278**
Coordinate Regulation of an Extended Chromosome Domain Vincent C. Calhoun and Michael Levine **[Summary] [Full Text] [PDF]**	**278-280**

Minireview	**Pages**
The Stem Cell Concept in Plants: A Matter of Debate Thomas Laux **[Summary] [Full Text] [PDF]**	**281-283**

Articles	**Pages**
Stereotyped Pruning of Long Hippocampal Axon Branches Triggered by Retraction Inducers of the Semaphorin Family Anil Bagri, Hwai-Jong Cheng, Avraham Yaron, Samuel J. Pleasure, and Marc Tessier-Lavigne **[Summary] [Full Text] [PDF] [Supplementary Data]**	**285-299**

...



On the cover: The cover shows eight of the distinct cell morphology classes that were induced by expression of constitutively active Ras superfamily small GTPases. NIH3T3 fibroblasts were transfected with 100 different mutant small GTPases and the observed morphologies were grouped into different classes. The cell in the middle is a cell transfected with a control construct. For further information, please see the article by Heo and Meyer in this issue (pp. 369-381).

Figure 6: Example of an issue table of contents complete with cover image and a caption. (Based on a real-life example.) Its XML encoding can be found in Figure 7.

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE serial-issue
   PUBLIC "-//ES//DTD serials issue DTD version 5.6.0//EN//XML"
  "si560.dtd" [
  <!ENTITY cover SYSTEM "cover" NDATA IMAGE>
]>
<serial-issue>
  <issue-info>
    <ce:pii>S0092-8674(03)X0400-6</ce:pii>
    <jid>CELL</jid>
    <ce:issn>0092-8674</ce:issn>
    <volume-issue-number>
      <vol-first>113</vol-first>
      <iss-first>3</iss-first>
    </volume-issue-number>
  </issue-info>
  <issue-data>
    <cover-date>
      <date-range>
        <start-date>20030502</start-date>
      </date-range>
    </cover-date>
    <ce:pages>
      <ce:first-page>275</ce:first-page>
      <ce:last-page>419</ce:last-page>
    </ce:pages>
    <cover-image>
      <ce:figure id="fig1">
        <ce:label>Functional Specificity of Small GTPases</ce:label>
        <ce:caption id="c1">
           <ce:simple-para id="sp1">The cover shows eight of the distinct
             cell morphology classes that were induced by expression of
             constitutively active Ras superfamily small GTPases. NIH3T3
             fibroblasts were transfected with 100 different mutant small
             GTPases and the observed morphologies were grouped into
             different classes. The cell in the middle is a cell
             transfected with a control construct. For further
             information, please see the article by Heo and Meyer in this
             issue (pp. <ce:inter-ref id="ir34" xlink:href="doi:10.1016/
             S0092-8674(03)00307-6">369-381</ce:inter-ref>).</ce:simple-para>
        </ce:caption>
        <ce:link locator="cover" xlink:type="simple" xlink:role=
          "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.7"
          xlink:href="pii:S0092867403X04006/cover"/>
      </ce:figure>
    </cover-image>
  </issue-data>
  <issue-body>
    <issue-sec>
      <ce:section-title id="st1">Previews</ce:section-title>
      <ce:include-item>
        <ce:pii>S0092-8674(03)00317-9</ce:pii>
        <ce:doi>10.1016/S0092-8674(03)00317-9</ce:doi>
        <ce:pages>
          <ce:first-page>275</ce:first-page>
```

```
          <ce:last-page>276</ce:last-page>
        </ce:pages>
      </ce:include-item>
      <ce:include-item>
        <ce:pii>S0092-8674(03)00313-1</ce:pii>
        <ce:doi>10.1016/S0092-8674(03)00313-1</ce:doi>
        <ce:pages>
          <ce:first-page>276</ce:first-page>
          <ce:last-page>278</ce:last-page>
        </ce:pages>
      </ce:include-item>
      <ce:include-item>
        <ce:pii>S0092-8674(03)00309-X</ce:pii>
        <ce:doi>10.1016/S0092-8674(03)00309-X</ce:doi>
        <ce:pages>
          <ce:first-page>278</ce:first-page>
          <ce:last-page>280</ce:last-page>
        </ce:pages>
      </ce:include-item>
    </issue-sec>
    <issue-sec>
      <ce:section-title id="st2">Minireview</ce:section-title>
        <ce:include-item>
          <ce:pii>S0092-8674(03)00312-X</ce:pii>
          <ce:doi>10.1016/S0092-8674(03)00312-X</ce:doi>
          <ce:pages>
            <ce:first-page>281</ce:first-page>
            <ce:last-page>283</ce:last-page>
          </ce:pages>
        </ce:include-item>
    </issue-sec>
    <issue-sec>
      <ce:section-title id="st3">Articles</ce:section-title>
        <ce:include-item>
        <ce:pii>S0092-8674(03)00267-8</ce:pii>
        <ce:doi>10.1016/S0092-8674(03)00267-8</ce:doi>
        <ce:pages>
          <ce:first-page>285</ce:first-page>
          <ce:last-page>299</ce:last-page>
        </ce:pages>
      </ce:include-item>
      ...
    </issue-sec>
    ...
  </issue-body>
</serial-issue>
```

Figure 7: XML encoding of the issue table of contents shown in Figure 6.

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE serial-issue
   PUBLIC "-//ES//DTD serials issue DTD version 5.6.0//EN//XML"
   "si560.dtd" [
   <!ENTITY cover SYSTEM "cover" NDATA IMAGE>
]>
<serial-issue>
  <issue-info>
    <ce:pii>S2468-2942(19)X0003-9</ce:pii>
    <jid>CTARC</jid>
    <ce:issn>2468-2942</ce:issn>
    <volume-issue-number>
      <vol-first>20</vol-first>
      <suppl>C</suppl>
    </volume-issue-number>
  </issue-info>
  <issue-data>
    <cover-date>
      <date-range>
        <start-date>2019</start-date>
      </date-range>
    </cover-date>
    <cover-image>
      <ce:figure>
        <ce:link locator="cover" xlink:type="simple" xlink:role=
          "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
          xlink:href="pii:S2468294219X00039/cover"/>
      </ce:figure>
    </cover-image>
  </issue-data>
  <issue-body>
    <ce:include-item>
      <ce:pii>S2468-2942(19)30036-X</ce:pii>
      <ce:doi>10.1016/j.ctarc.2019.100149</ce:doi>
      <ce:article-number>100149</ce:article-number>
    </ce:include-item>
    <ce:include-item>
      <ce:pii>S2468-2942(19)30042-5</ce:pii>
      <ce:doi>10.1016/j.ctarc.2019.100150</ce:doi>
      <ce:article-number>100150</ce:article-number>
    </ce:include-item>
    <ce:include-item>
      <ce:pii>S2468-2942(19)30035-8</ce:pii>
      <ce:doi>10.1016/j.ctarc.2019.100131</ce:doi>
      <ce:article-number>100131</ce:article-number>
    </ce:include-item>
    ...
  </issue-body>
</serial-issue>
```

Figure 8: XML encoding of an issue hub file using article numbers. Note there is no `ce:pages` element.

sponsor

Declaration

Model (SI DTD 5.1)

```
<!ELEMENT  sponsor              ( %richstring.data; )*>
```

Model (SI DTD 5.2–SI DTD 5.6)

```
<!ELEMENT  sponsor              ( %richstring.data; )*>
<!ATTLIST  sponsor
           id                   ID                 #IMPLIED>
```

Description

The element sponsor contains sponsor text for a conference.

Usage

See sponsors.

Version history

The id attribute was added in version 5.2.0 of the DTD.

sponsors

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  sponsors              ( sponsor+ )>
```

Description

The element sponsors contains information about one or more sponsors of a conference or sponsors of the serial issue.

Usage

When a conference or a journal issue or book series volume is sponsored, the element sponsors is used to capture this information.

The element sponsor does not generate any text itself, therefore the full "sponsored by" text is captured within sponsor.

XML

```
<sponsors>
  <sponsor id="sp1">Sponsored by Reckitt Benckiser
    Pharmaceuticals</sponsor>
</sponsors>
```

XML

```
<sponsors>
  <sponsor id="sp2">Sponsored by Reckitt Benckiser Pharmaceuticals
    and GlaxoSmithKline</sponsor>
</sponsors>
```

XML

```
<sponsors>
  <sponsor id="sp3">This issue was partially funded by a grant from
    the Clay Mathematics Institute</sponsor>
</sponsors>
```

The second example shows that it is possible to have two sponsors within sponsor. If there is the need to have more than one sponsor text it is possible to use more sponsor elements. Examples of this are sponsor texts in different languages or texts of a different nature that one would like to separate.

XML

```
<sponsors>
  <sponsor id="sp4">Sponsored by Reckitt Benckiser
    Pharmaceuticals</sponsor>
  <sponsor id="sp5">The conference was made possible by a grant from
    the National Science Foundation</sponsor>
</sponsors>
```

XML

```
<sponsors>
  <sponsor id="sp6">Sponsored by Reckitt Benckiser
   Pharmaceuticals</sponsor>
  <sponsor id="sp7">Gesponsort durch Reckitt Benckiser
   Pharmaceuticals</sponsor>
</sponsors>
```

start-date

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  start-date            ( %string.data; )*>
```

Description

The element start-date contains the start date of a date range in EFFECT format.

Usage

See date-range.

suppl

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  suppl                ( %string.data; )*>
```

Description

The element suppl contains the supplementary designation within the volume/issue number of the journal issue, for supplements, parts and indexes.

Known bugs, hacks and problems

Note that “supplementary designation” doesn’t necessarily indicate a supplement.

Usage

See volume-issue-number.

title-editors-group

Declaration

Model (SI DTD 5.1)

```
<!ELEMENT  title-editors-group   ( ( %titles; )?, conference-info?, ( ed-
                                   itors | ce:editors )?, sponsors? )>
```

Model (SI DTD 5.2–SI DTD 5.6)

```
<!ELEMENT  title-editors-group   ( ( %titles; )?, conference-info?, ( ed-
                                   itors | ce:editors )?, sponsors? )>
<!ATTLIST  title-editors-group
           id                    ID               #IMPLIED>
```

Description

The element title-editors-group contains information belonging to a serial issue.

Usage

The element title-editors-group contains information about the serial issue, such as its title, its editors, etc.

Journal issues are either “regular” or “special”. Special issues also include proceedings and thematical or topical issues. They have additional properties above those of a regular issue. In particular, they may possess a title, (guest) editors, and can belong to a conference.

A volume in a book series can also have one or more of these properties.

The element title-editors-group is provided for capturing the above-mentioned properties of a serial issue. An issue can have zero or more of these elements. If it has none, then the issue must be regular. If it has more than one, then it indicates that the issue in fact contains more than one “special issue”. The items in such a “special issue” should be placed in an issue-sec which can then refer to a title-editors-group by means of its attribute group-id. See issue-sec for an example.

The title of the serial issue can be captured with ce:title. In addition to the title, there can optionally be a subtitle (ce:subtitle), titles in an alternative language (ce:alt-title), and subtitles in an alternative language (ce:alt-subtitle).

If the serial issue is related to a conference, then the details of that conference is contained in conference-info.

Serial issues may have (guest) editors. These can be captured in two alternative ways. One is in the form of an unstructured string of names (editors), the other is a structured list of editors (ce:editors, for more information see the description of that element). These (guest) editors should not be confused with the Editorial Board members. Those are captured in a separate document with docsubtype equal to edb.

One or more sponsors can be associated with the issue (or with the conference). These are captured within sponsors.

XML

```
<title-editors-group id="teg4">
  <ce:title id="ttl3">Restless Legs Syndrome</ce:title>
  <ce:editors>
    <ce:author-group id="aug1">
      <ce:author id="au1"
         author-id="S1389945700X00202-33a3af23717d01de8044bdbb38a18ed4">
         <ce:degrees>Dr</ce:degrees>
         <ce:given-name>Sudhansu</ce:given-name>
         <ce:surname>Chokroverty</ce:surname>
      </ce:author>
      <ce:affiliation id="aff1">
        <ce:textfn>Saint Vincents Hospital and Medical Center, 153
          West 11th St., Cronin 466, New York, NY 10011,
          USA</ce:textfn>
        <sa:affiliation>
          <sa:organization>Saint Vincents Hospital and
            Medical Center</sa:organization>
          <sa:address-line>153 West 11th St.</sa:address-line>
          <sa:address-line>Cronin 466</sa:address-line>
          <sa:city>New York</sa:city>
          <sa:postal-code>NY 10011</sa:postal-code>
          <sa:country>USA</sa:country>
        </sa:affiliation>
      </ce:affiliation>
    </ce:author-group>
  </ce:editors>
</title-editors-group>
```

XML

```
<title-editors-group id="teg1">
  <ce:title id="ttl1">Buprenorphine and Buprenorphine/Naloxone:
    A Guide For Clinicians</ce:title>
  <editors>Paul J. Fudala and T. Peter Bridge</editors>
  <sponsors><sponsor>Supported by Reckitt Benckiser
    Pharmaceuticals Inc.</sponsor></sponsors>
</title-editors-group>
```

XML

```
<title-editors-group id="teg1">
  <ce:title id="ttl2">Statphys-Taiwan-2002:
    Lattice Models and Complex Systems</ce:title>
  <conference-info>
    <venue>Taipei and Taichung, Taiwan</venue>
    <date-range>
       <start-date>20020526</start-date>
       <end-date>20020601</end-date>
    </date-range>
  </conference-info>
  <editors>Chin-Kun Hu and K.-t. Leung</editors>
</title-editors-group>
```

Element `editors` is provided for backward compatibility with the EFFECT `dataset.toc` dataset description file.

Version history

The `id` attribute was added in version 5.2.0 of the DTD.

venue

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  venue                ( %richstring.data; )*>
```

Description

The element venue contains the location where the conference took place.

Usage

See conference-info.

vol-first

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  vol-first            ( %string.data; )*>
```

Description

The element vol-first contains the volume number, or the first volume in a volume number range, of a serial issue.

Usage

See volume-issue-number.

vol-last

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  vol-last              ( %string.data; )*>
```

Description

The element vol-last contains the last volume in a volume number range of a serial issue.

Usage

See volume-issue-number.

volume-issue-number

Declaration

Model (SI DTD 5.1–SI DTD 5.6)

```
<!ELEMENT  volume-issue-number   ( vol-first, ( ( vol-last, suppl ) |
                                   ( iss-first, iss-last?, suppl? ) |
                                   suppl ) )>
```

Description

The element volume-issue-number contains the volume/issue number of the issue.

Usage

Each issue has a "volume/issue number", which can be broken into different parts: the volume or volume range, the issue or issue range, and the supplementary information. This is captured in up to five elements, vol-first, vol-last, iss-first, iss-last, suppl.

The suppl element may only contain the following:

- C, for "complete",
- P, for "part", optionally followed by a number or a capital letter,
- I, for "index", optionally followed by a number or a capital letter,
- S, for "supplement", optionally followed by a number or a capital letter.

(Here "number" is a positive integer, $1, 2, 3, \ldots$.) In the case of a P100 delivery the suppl element may also contain an F, for "spin-off", optionally followed by a single digit, or one of the above options followed by F optionally followed by a single digit.

Note that "supplementary information" doesn't necessarily indicate a supplement.

XML

```
<volume-issue-number>
   <vol-first>4</vol-first>
   <iss-first>4</iss-first>
</volume-issue-number>

<volume-issue-number>
   <vol-first>192</vol-first>
   <iss-first>1</iss-first>
   <iss-last>3</iss-last>
</volume-issue-number>

<volume-issue-number>
   <vol-first>227</vol-first>
   <vol-last>228</vol-last>
   <suppl>C</suppl>
</volume-issue-number>

<volume-issue-number>
   <vol-first>50</vol-first>
   <suppl>I</suppl>
</volume-issue-number>
```

```
<volume-issue-number>
   <vol-first>73</vol-first>
   <suppl>S1</suppl>
</volume-issue-number>

<volume-issue-number>
   <vol-first>42</vol-first>
   <vol-last>45</vol-last>
   <suppl>PB</suppl>
</volume-issue-number>
```

Presentation

4/4
192/1–3
227–228
Vol. 50, Master Index
Vol. 73, Supplement 1
Vols. 42–45, Part B

Chapter 5
Book DTD

This chapter contains an alphabetic listing of the elements in the Elsevier Book DTD and its predecessor, the Elsevier Health Sciences Book DTD. This DTD has the following top-level elements: book, chapter, simple-chapter, examination, fb-non-chapter, glossary, index, introduction, bibliography. These top-level elements provide the option to define the *structure* of the book (book) and the *content* of the book (the other top-level elements). The former contains metadata and hierarchy of the book project, and it "calls" the chapters, the index, etc. using the ce:include-item element. This is why it is often referred to as the "hub" of the book.

In serial publications, items and issue hubs are structured with two different DTDs, the JA DTD and the SI DTD. This is due to historical reasons. In the Elsevier Book DTD, all aspects of a book are supported.

CEP version used in this DTD

The Book DTD versions described in this documentation make use of different versions of the common element pool, as follows:

Book DTD	Common element pool
EHS Book DTD 5.1.0	CEP 1.1.2
EHS Book DTD 5.1.1	CEP 1.1.3
Book DTD 5.2.0	CEP 1.1.3
Book DTD 5.2.1	CEP 1.1.3
Book DTD 5.3.0	CEP 1.1.6
Book DTD 5.3.1	CEP 1.1.6
Book DTD 5.4.0	CEP 1.4.0
Book DTD 5.5.0	CEP 1.5.0
Book DTD 5.6.0	CEP 1.6.0

To align the version numbers of the JA DTD, the Book DTD and the CEP, version 1.3.0 of the CEP was not created.

Parameter entities

The Book DTDs add element ce:index-flag to parameter entities %spar.data; and %par.data; by means of the local parameter entities %local.spar.data; and %local.par.data;. The effect is that ce:index-flag can be used in any element that has %spar.data; or %par.data; in its model. In the same way ce:br is added to parameter entity %textfn.data;.

```
<!ENTITY % local.spar.data   "| ce:index-flag">
```

```
<!ENTITY % local.par.data    "| ce:index-flag">
<!ENTITY % local.textfn.data "| ce:br">
```

bibliography

Declaration

Model (Book DTD 5.1.0, Book DTD 5.1.1)

```
<!ELEMENT  bibliography          ( info, ce:further-reading+ )>
<!ATTLIST  bibliography
           id                    ID                 #REQUIRED
           xmlns                 CDATA              #FIXED %ES.xmlns;
           version               CDATA              #FIXED '5.1'
           xmlns:ce              CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA              #FIXED %XLINK.xmlns;
           xml:lang              %language;         'en'
           docsubtype            %docsubtype;       #FIXED "bib">
```

Model (Book DTD 5.2.0, Book DTD 5.2.1)

```
<!ELEMENT  bibliography          ( info, ce:label?, ce:further-
                                   reading* )>
<!ATTLIST  bibliography
           id                    ID                 #REQUIRED
           xmlns                 CDATA              #FIXED %ESBK.xmlns;
           version               CDATA              #FIXED '5.2'
           xmlns:ce              CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA              #FIXED %XLINK.xmlns;
           xml:lang              %language;         'en'
           role                  CDATA              #IMPLIED
           docsubtype            %docsubtype;       #FIXED "bib">
```

Model (Book DTD 5.3.0, Book DTD 5.3.1)

```
<!ELEMENT  bibliography          ( info, ce:label?, ce:title?,
                                   ce:further-reading* )>
<!ATTLIST  bibliography
           xmlns                 CDATA              #FIXED %ES.xmlns;
           version               CDATA              #FIXED '5.3'
           xmlns:ce              CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA              #FIXED %XLINK.xmlns;
           xml:lang              %iso639;           'en'
           id                    ID                 #REQUIRED
           role                  CDATA              #IMPLIED
           docsubtype            %docsubtype;       #FIXED "bib">
```

Model (Book DTD 5.4.0)

```
<!ELEMENT  bibliography          ( info, ce:label?, ce:title?,
                                   ce:further-reading* )>
<!ATTLIST  bibliography
           xmlns                 CDATA              #FIXED %ES.xmlns;
           version               CDATA              #FIXED '5.4'
           xmlns:ce              CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA              #FIXED %XLINK.xmlns;
           xml:lang              %iso639;           'en'
           id                    ID                 #REQUIRED
           role                  CDATA              #IMPLIED
           docsubtype            ( bib|ret|rem|dup )
                                                    "bib">
```

Model (Book DTD 5.5.0)

```
<!ELEMENT  bibliography          ( info, ce:label?, ce:title?,
                                   ce:further-reading* )>
<!ATTLIST  bibliography
           xmlns                 CDATA              #FIXED %ES.xmlns;
           version               CDATA              #FIXED '5.5'
           xmlns:ce              CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA              #FIXED %XLINK.xmlns;
           xml:lang              %iso639;           'en'
           id                    ID                 #REQUIRED
           role                  CDATA              #IMPLIED
           docsubtype            ( bib|ret|rem|dup )
                                                    "bib">
```

Model (Book DTD 5.6.0)

```
<!ELEMENT  bibliography          ( info, ce:label?, ce:title?,
                                   ( ce:bibliography | ce:further-
                                   reading )* )>
<!ATTLIST  bibliography
           xmlns                 CDATA              #FIXED %ES.xmlns;
           version               CDATA              #FIXED '5.6'
           xmlns:ce              CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA              #FIXED %XLINK.xmlns;
           xml:lang              %iso639;           'en'
           id                    ID                 #REQUIRED
           role                  CDATA              #IMPLIED
           docsubtype            ( bib|ret|rem|dup )
                                                    "bib">
```

Description

The element bibliography is used to capture book-level bibliographies that sometimes appear in a book's back matter.

Usage

The bibliography element is used to capture a book-level bibliography when they appear in the back matter of a book. When used, bibliography will always appear as a top-level element, with its own DOCTYPE declaration/PUBLIC identifier appearing at the top of the XML file. A bibliography gets called into the book's hub XML file by a ce:include-item element.

Content for bibliography consists of required info followed by optional ce:label, optional ce:title, and optional/repeatable ce:further-reading.

It has an optional role, along with several required attributes:

- id
- xmlns: http://www.elsevier.com/xml/book/dtd
- version: 5.4
- xmlns:ce: http://www.elsevier.com/xml/common/dtd
- xmlns:xlink: http://www.w3.org/1999/xlink
- xml:lang: en
- docsubtype: bib (default value), ret, rem or dup

XML

```
<!DOCTYPE bibliography PUBLIC "-//ES//DTD book DTD
  version 5.4.0//EN//XML" "book540.dtd" []>
<bibliography docsubtype="bib" id="bibliog">
  <info>
    <ce:pii>B978-0-323-01679-7.10003-8</ce:pii>
    <ce:isbn>978-0-323-01679-7</ce:isbn>
    <ce:copyright type="full-transfer"
      year="2003">Mosby, Inc.</ce:copyright>
  </info>
  <ce:title id="ttl1">Bibliography</ce:title>
  <ce:further-reading id="fr1">
  ...
  </ce:further-reading>
</bibliography>
```

Version history

In the Elsevier Book DTD 5.2.0 the optional attribute `role` and the optional subelement `ce:label` were added, and `ce:further-reading` was made optional/repeatable to allow for Ultralight delivery of book backfile projects.

In the Elsevier Book DTD 5.3.0 the `ce:title` was added to allow for proper title and tagging in sync with other DOCTYPES.

In Elsevier Book DTD 5.4.0 three more possible values were added for attribute `docsubtype`.

The `ce:section-title` element, child of `ce:bibliography` should no longer be used for Bibliography item titles.

body

Declaration

Model (Book DTD 5.1.0–Book DTD 5.2.1)

```
<!ELEMENT  body                ( volume | part | section | ce:include-
                                 item )+>
```

Model (Book DTD 5.3.0–Book DTD 5.6.0)

```
<!ELEMENT  body                ( volume | part | section | ce:include-
                                 item )+>
<!ATTLIST  body
           role                CDATA            #IMPLIED>
```

Description

The element body is used to capture all of the material that appears between the front and rear of Elsevier books.

Usage

The body element is used to delimit and capture the material that appears between the front and rear in Elsevier books. It consists of required and repeatable volumes and/or parts and/or sections and/or ce:include-items.

It has an optional role. There are two roles defined for use in major reference works: ToC if the body contains a table of contents, and SubjClass if the body contains a subject classification.

The element body, child of book, appears in the hub file for the book. If present, any hierarchy above chapters (e.g. volume, parts, sections) should also be captured using this content model within the hub file.

Lower-level items (doctypes chapter, introduction, examination, and in very rare cases bibliography) within the body get called in to the hub file using ce:include-item elements. Other doctypes usually do not get called into body.

XML

```
<body>
  <volume id="vI"><ce:label>Volume I</ce:label>
    <part id="pA"><ce:label>Part A</ce:label>
      <ce:title id="t1">GENERAL ISSUES AND APPROACH TO DISEASE
        IN PRIMARY CARE MEDICINE</title>
      <ce:include-item>
       <ce:pii>B0-323-01679-0/10027-7</ce:pii>
        <ce:title id="t2">Introduction</ce:title>
        <ce:pages>
          <ce:first-page>1</ce:first-page>
          <ce:last-page>8</ce:last-page>
        </ce:pages>
      </ce:include-item>
      <section id="s1"><ce:label>Section 1</ce:label>
        <ce:title id="t3">Core Issues and Special Groups
```

```
            in Primary Care</ce:title>
          <ce:include-item>
            <ce:pii>B0-323-01679-0/10003-4</ce:pii>
            <ce:title id="t4">Core Issues in Primary Care</ce:title>
            <ce:pages>
              <ce:first-page>9</ce:first-page>
              <ce:last-page>18</ce:last-page>
            </ce:pages>
          </ce:include-item>
          ...
        </section>
        ...
      </part>
      ...
    </volume>
  </body>
```

Version history

In Elsevier Book DTD 5.3.0 the optional attribute `role` was added.

book

Declaration

Model (Book DTD 5.2.0)

```
<!ELEMENT  book                ( info, top, ce:floats?, front, body,
                                 rear )>
<!ATTLIST  book
           xmlns               CDATA             #FIXED %ESBK.xmlns;
           version             CDATA             #FIXED '5.2'
           xmlns:ce            CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink         CDATA             #FIXED %XLINK.xmlns;
           xml:lang            %language;        'en'
           docsubtype          %docsubtype;      #FIXED "bk">
```

Model (Book DTD 5.2.1)

```
<!ELEMENT  book                ( info, top, ce:floats?, front?, body,
                                 rear? )>
<!ATTLIST  book
           xmlns               CDATA             #FIXED %ESBK.xmlns;
           version             CDATA             #FIXED '5.2'
           xmlns:ce            CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink         CDATA             #FIXED %XLINK.xmlns;
           xml:lang            %language;        'en'
           docsubtype          %docsubtype;      #FIXED "bk">
```

Model (Book DTD 5.3.0, Book DTD 5.3.1)

```
<!ELEMENT  book                ( info, top, ce:floats?, front?, body+,
                                 rear? )>
<!ATTLIST  book
           xmlns               CDATA             #FIXED %ES.xmlns;
           version             CDATA             #FIXED '5.3'
           xmlns:ce            CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink         CDATA             #FIXED %XLINK.xmlns;
           xml:lang            %iso639;          'en'
           docsubtype          %docsubtype-book; "bk">
```

Model (Book DTD 5.4.0)

```
<!ELEMENT  book                ( info, top, ce:floats?, front?, body+,
                                 rear? )>
<!ATTLIST  book
           xmlns               CDATA             #FIXED %ES.xmlns;
           version             CDATA             #FIXED '5.4'
           xmlns:ce            CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink         CDATA             #FIXED %XLINK.xmlns;
           xml:lang            %iso639;          'en'
           docsubtype          %docsubtype-book; "bk">
```

Model (Book DTD 5.5.0)

```
<!ELEMENT  book                ( info, top, ce:floats?, front?, body+,
                                 rear? )>
<!ATTLIST  book
           xmlns               CDATA             #FIXED %ES.xmlns;
           version             CDATA             #FIXED '5.5'
           xmlns:ce            CDATA             #FIXED %ESCE.xmlns;
```

```
          xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
          xml:lang             %iso639;           'en'
          docsubtype           %docsubtype-book; "bk">
```

Model (Book DTD 5.6.0)

```
<!ELEMENT  book                ( info, top, ce:floats?, front?, body+,
                                 rear? )>
<!ATTLIST  book
          xmlns                CDATA              #FIXED %ES.xmlns;
          version              CDATA              #FIXED '5.6'
          xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
          xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
          xml:lang             %iso639;           'en'
          docsubtype           %docsubtype-book; "bk">
```

Description

The element book is the top-level element for Elsevier books. A majority of books should be able to be captured using the content model from this DTD.

Usage

A Book dataset can be used to capture most Elsevier book publications.

Book content consists of a hub file used to reflect hierarchy in body above chapter, as well as to call all of the lower-level doctypes (e.g. chapter, index) into the book. Contrary to serial publications, where the item and the hub have different DTDs for historical reasons, the hub and items of an Elsevier book are structured with different top-level elements (doctypes) of the same DTD.

The hub's top-level element is book. It consists of required info and top, optional ce:floats and optional front, required/repeatable body, and optional rear elements.

It has several required attributes:

- xmlns: http://www.elsevier.com/xml/book/dtd
- version: 5.4
- xmlns:ce: http://www.elsevier.com/xml/common/dtd
- xmlns:xlink: http://www.w3.org/1999/xlink
- xml:lang: en (default value)
- docsubtype-book: bk (default value), dct, enc or com

XML

```
<!DOCTYPE book
  PUBLIC "-//ES//DTD book DTD version 5.4.0//EN//XML"
  "book540.dtd" []>
<book>
  <info>
    ...
  </info>
  <top>
    ...
  </top>
  <front>
    ...
  </front>
```

```
    <body>
      ...
    </body>
    <rear>
      ...
    </rear>
  </book>
```

Version history

In the Elsevier Book DTD 5.2.0 the top-level element changed from `ehs-book` to `book`. The subelement `top` was added as was the attribute `docsubtype` with fixed value `bk`.

In the Elsevier Book DTD 5.2.1 subelements `front` and `rear` were made optional.

In the Elsevier Book DTD 5.3.0, attribute `docsubtype`, changed from a fixed value of `bk`, to a default value of `bk`. Other values are possible (`com`, `dct`, or `enc`), based on the type of book being delivered.

The element `body` was also made repeatable in v5.3.0 to properly accommodate MRWs into the STAB Book work DTD.

chapter

Declaration

Model (Book DTD 5.1.0)

```
<!ELEMENT  chapter              ( info, ce:floats?, ce:label, ce:title,
                                  ce:subtitle?, ce:author-group*,
                                  ce:displayed-quote?, ce:nomenclature?,
                                  ce:intro?, ( ce:section | subchapter
                                  | exam )+, ( ( ce:bibliography |
                                  ce:further-reading )+, ( ce:section |
                                  exam )* )? )>
<!ATTLIST  chapter
           id                   ID                 #REQUIRED
           xmlns                CDATA              #FIXED %ES.xmlns;
           version              CDATA              #FIXED '5.1'
           xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
           xml:lang             %language;         'en'
           docsubtype           %docsubtype;       #FIXED "chp">
```

Model (Book DTD 5.1.1)

```
<!ELEMENT  chapter              ( info, ce:floats?, ce:label, ce:title,
                                  ce:subtitle?, ce:author-group*,
                                  ce:displayed-quote?, poem?, outline?,
                                  objectives?, ce:nomenclature?,
                                  ce:intro?, ( ce:sections | subchapter
                                  | exam )+, ( ( ce:bibliography |
                                  ce:further-reading )+, ( ce:section |
                                  exam )* )? )>
<!ATTLIST  chapter
           id                   ID                 #REQUIRED
           xmlns                CDATA              #FIXED %ES.xmlns;
           version              CDATA              #FIXED '5.1'
           xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
           xml:lang             %language;         'en'
           docsubtype           %docsubtype;       #FIXED "chp">
```

Model (Book DTD 5.2.0)

```
<!ELEMENT  chapter              ( ce:footnote*, info, ce:floats?,
                                  ce:label, ce:title, ce:subtitle?,
                                  ce:author-group*, ce:displayed-
                                  quote?, poem?, outline?, objectives?,
                                  ce:nomenclature?, ce:acknowledgment?,
                                  ce:intro?, ( ce:sections | subchapter
                                  | exam )+, ( ( ce:bibliography |
                                  ce:further-reading )+, ( ce:section |
                                  exam )* )? )>
<!ATTLIST  chapter
           id                   ID                 #REQUIRED
           xmlns                CDATA              #FIXED %ESBK.xmlns;
           version              CDATA              #FIXED '5.2'
           xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
```

```
          xml:lang            %language;        'en'
          role                CDATA             #IMPLIED
          docsubtype          %docsubtype;      #FIXED "chp">
```

Model (Book DTD 5.2.1)

```
<!ELEMENT  chapter            ( ce:footnote*, info, ce:floats?,
                                ce:label?, ce:title, ce:subtitle?,
                                ce:author-group*, ce:displayed-
                                quote?, poem?, outline?, objectives?,
                                ce:nomenclature?, ce:acknowledgment?,
                                ce:intro?, ( ce:sections | subchapter
                                | exam )+, ( ( ce:bibliography |
                                ce:further-reading )+, ( ce:section |
                                exam )* )? )>
<!ATTLIST  chapter
          id                  ID                #REQUIRED
          xmlns               CDATA             #FIXED %ESBK.xmlns;
          version             CDATA             #FIXED '5.2'
          xmlns:ce            CDATA             #FIXED %ESCE.xmlns;
          xmlns:xlink         CDATA             #FIXED %XLINK.xmlns;
          xml:lang            %language;        'en'
          role                CDATA             #IMPLIED
          docsubtype          %docsubtype;      #FIXED "chp">
```

Model (Book DTD 5.3.0)

```
<!ELEMENT  chapter            ( ce:footnote*, info, ce:floats?,
                                ce:label?, ce:title, ce:subtitle?,
                                ce:author-group*, ce:miscellaneous?,
                                ce:abstract*, ce:keywords*,
                                ce:displayed-quote?, poem?, out-
                                line?, objectives?, ce:nomenclature?,
                                ce:acknowledgment?, ce:intro?,
                                ( ce:sections | subchapter |
                                exam )+, ( ( ( ce:bibliography |
                                ce:further-reading )+ | ce:section |
                                ce:biography ), ( ce:section | exam |
                                ce:biography )* )? )>
<!ATTLIST  chapter
          xmlns               CDATA             #FIXED %ES.xmlns;
          version             CDATA             #FIXED '5.3'
          xmlns:ce            CDATA             #FIXED %ESCE.xmlns;
          xmlns:xlink         CDATA             #FIXED %XLINK.xmlns;
          xml:lang            %iso639;          'en'
          id                  ID                #REQUIRED
          role                CDATA             #IMPLIED
          docsubtype          %docsubtype;      #FIXED "chp">
```

Model (Book DTD 5.3.1)

```
<!ELEMENT  chapter              ( ce:footnote*, info, ce:floats?,
                                  ce:label?, ce:title, ce:subtitle?,
                                  ce:author-group*, ce:miscellaneous?,
                                  ce:abstract*, ce:keywords*,
                                  ce:displayed-quote?, poem?, out-
                                  line?, objectives?, ce:nomenclature?,
                                  ce:acknowledgment?, ce:intro?,
                                  ( ce:sections | subchapter |
                                  exam )+, ( ( ( ce:bibliography |
                                  ce:further-reading )+ | ce:section |
                                  ce:biography ), ( ce:section | exam |
                                  ce:biography )* )? )>
<!ATTLIST  chapter
           xmlns                CDATA              #FIXED %ES.xmlns;
           version              CDATA              #FIXED '5.3'
           xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
           xml:lang             %iso639;           'en'
           id                   ID                 #REQUIRED
           role                 CDATA              #IMPLIED
           docsubtype           ( chp|ovw )        "chp">
```

Model (Book DTD 5.4.0)

```
<!ELEMENT  chapter              ( ce:footnote*, info, ce:floats?,
                                  ce:label?, %titles;, ce:author-group*,
                                  ce:miscellaneous*, ce:abstract*,
                                  ce:keywords*, ce:displayed-quote?,
                                  poem?, outline*, objectives?,
                                  ce:nomenclature*, ce:acknowledgment?,
                                  ce:intro?, ( ce:sections | subchapter
                                  | exam )+, ( ( ( ce:bibliography |
                                  ce:further-reading )+ | ce:section |
                                  ce:biography ), ( ce:section | exam |
                                  ce:biography )* )? )>
<!ATTLIST  chapter
           xmlns                CDATA              #FIXED %ES.xmlns;
           version              CDATA              #FIXED '5.4'
           xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
           xml:lang             %iso639;           'en'
           id                   ID                 #REQUIRED
           role                 CDATA              #IMPLIED
           docsubtype           ( chp|ovw|lit|ret|rem|dup )
                                                   "chp">
```

Model (Book DTD 5.5.0)

```
<!ELEMENT  chapter              ( ce:footnote*, info, ce:floats?,
                                  ce:label?, %titles;, ce:author-group*,
                                  ce:miscellaneous*, ce:abstract*,
                                  ce:keywords*, ce:displayed-quote?,
                                  poem?, outline*, objectives?,
                                  ce:nomenclature*, ce:acknowledgment*,
                                  ce:intro?, ( ce:sections | subchapter
                                  | exam )+, ( ( ( ce:bibliography |
                                  ce:further-reading )+ | ce:section |
                                  ce:biography ), ( ce:section | exam |
                                  ce:biography )* )? )>
```

```
<!ATTLIST  chapter
           xmlns                CDATA             #FIXED %ES.xmlns;
           version              CDATA             #FIXED '5.5'
           xmlns:ce             CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA             #FIXED %XLINK.xmlns;
           xml:lang             %iso639;          'en'
           id                   ID                #REQUIRED
           role                 CDATA             #IMPLIED
           docsubtype           ( chp|ovw|lit|vid|rpl|ret|rem|dup )
                                                  "chp">
```

Model (Book DTD 5.6.0)

```
<!ELEMENT  chapter              ( ce:footnote*, info, ce:floats?,
                                  ce:label?, %titles;, ce:author-
                                  group*, ce:miscellaneous*,
                                  ce:abstract*, ce:keywords*, ce:data-
                                  availability?, ce:displayed-quote*,
                                  poem?, outline*, objectives?,
                                  ce:nomenclature*, ce:conflict-of-
                                  interest?, ce:acknowledgment*,
                                  ce:intro?, ( ce:sections | subchapter
                                  | exam )+, ( ( ( ce:bibliography |
                                  ce:further-reading )+ | ce:section |
                                  ce:biography ), ( ce:section | exam |
                                  ce:biography )* )? )>
<!ATTLIST  chapter
           xmlns                CDATA             #FIXED %ES.xmlns;
           version              CDATA             #FIXED '5.6'
           xmlns:ce             CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA             #FIXED %XLINK.xmlns;
           xml:lang             %iso639;          'en'
           id                   ID                #REQUIRED
           role                 CDATA             #IMPLIED
           docsubtype           ( chp|ovw|lit|vid|rpl|ins|pro|ret|rem|dup )
                                                  "chp">
```

Description

The element chapter is used to capture book chapters as individual XML files.

Usage

The chapter element is used to capture all the material that appears within a book chapter. There is a PUBLIC identifier and a DOCTYPE declaration for chapter, and individual chapter files get called into the book's hub file using the ce:include-item element.

Although the DTD does not restrict where lower-level book doctypes get called into the hub file, the intent is for chapter only to be called into body, not in front or rear.

The content for a chapter consists of an optional/repeatable ce:footnote, a required info and the optional ce:floats container. The chapter begins with the (optional) ce:label, containing the name of the chapter ("Chapter 4"), the chapter title(s), tagged via ce:title, optional ce:subtitle and optional/repeatable ce:alt-title and ce:alt-subtitle, and optional and repeatable ce:author-group containing authors and their affiliations. Followed by optional/repeatable ce:miscellaneous, optional/repeatable ce:abstract,

optional/repeatable ce:keywords, and optional ce:data-availability. The optional subelements ce:displayed-quote, poem, outline (repeatable), optional objectives and ce:nomenclature (repeatable) also belong to the "head" of the chapter, followed by an optional ce:conflict-of-interest and ce:acknowledgment (repeatable). An introduction or summary is contained in the optional ce:intro.

The main body of the chapter consists of a sequence of ce:sections, subchapter and/or exam elements, followed by optional/repeatable ce:bibliography and/or ce:further-reading, possibly followed by more ce:sections and/or exams and/or ce:biographys.

It has an optional role, along with several required attributes:

- id
- xmlns: http://www.elsevier.com/xml/book/dtd
- version: 5.4
- xmlns:ce: http://www.elsevier.com/xml/common/dtd
- xmlns:xlink: http://www.w3.org/1999/xlink
- xml:lang: en (default value)
- docsubtype: chp (default value), ovw, lit, vid, rpl, ret, rem or dup

For attribute role one value is defined, dictionary, indicating the chapter is a dictionary.

XML

```
<!DOCTYPE chapter
  PUBLIC "-//ES//DTD book DTD version 5.4.0//EN//XML"
  "book540.dtd" []>
<chapter id="ch1">
  <info>
    <ce:pii>B978-0-323-01679-7.10003-8</ce:pii>
    <ce:isbn>978-0-323-01679-7</ce:isbn>
    <ce:copyright type="full-transfer"
      year="2003">Mosby, Inc.</ce:copyright>
  </info>
  <ce:floats>
    ...
  </ce:floats>
  <ce:label>Chapter 1</ce:label>
  <ce:title id="t1">Core Issues in Primary Care</ce:title>
  <ce:author-group id="aug1">
    ...
  </ce:author-group>
  <ce:intro id="in1">
    <ce:para id="p1">Text of opening paragraph...</ce:para>
  </ce:intro>
  <ce:sections>
    <ce:section id="s1">
      <ce:label>1.1</ce:label>
      <ce:section-title id="st1">Summary of Primary Care
        Today</ce:section-title>
      <ce:para id="p2">Text of opening paragraph...</ce:para>
      <ce:para id="p3">Text second paragraph...</ce:para>
    </ce:section>
    <ce:section id="s2">
      <ce:label>1.2</ce:label>
      <ce:section-title id="st2">Core Issues</ce:section-title>
      <ce:para id="p4">Text of opening paragraph...</ce:para>
```

```
      <ce:para id="p5">Text second paragraph...</ce:para>
    </ce:section>
  </ce:sections>
  <ce:bibliography id="bibl1">
    ...
  </ce:bibliography>
</chapter>
```

Version history

In EHS Books DTD 5.1.1 the occurrence indicator for ce:author-group changed from ? to *. Element examination was replaced by exam and the docsubtype attribute was added. Elements poem, outline and objectives were added. Element ce:section was changed to ce:sections to allow chapters to begin with regular paragraphs.

In Elsevier Book DTD 5.2.0, an optional/repeatable ce:footnote was added to the beginning of the content model for chapter. The optional attribute role was also added.

In Elsevier Book DTD 5.2.1 subelement ce:label was made optional.

In Elsevier Book DTD 5.3.0 this release of the DTD added optional ce:miscellaneous, optional/repeatable ce:abstract, and optional/repeatable ce:keywords. The element ce:biography was also added to the end of the content model for authors of MRW items.

In Elsevier Book DTD 5.3.1 value ovw (overview) was added for attribute docsubtype.

In Elsevier Book DTD 5.4.0 the optional/repeateable elements ce:alt-title and ce:alt-subtitle were added to the model of chapter. Four more possible values were added for attribute docsubtype. Also, the occurrence indicator for elements ce:miscellaneous, outline and ce:nomenclature was changed from ? to *.

In Elsevier Book DTD 5.5.0 the occurrence indicator for ce:acknowledgment changed from ? to * and two more possible values were added for attribute docsubtype.

In Elsevier Book DTD 5.6.0 the elements ce:conflict-of-interest and ce:data-availability were added and the occurrence indicator for ce:displayed-quote was changed from ? to *.

Light reading

Note that PreCAP chapters should be done using the doctype simple-chapter.

cover-image

Declaration

Model (Book DTD 5.2.0–Book DTD 5.6.0)

```
<!ELEMENT  cover-image          ( ce:figure )>
```

Description

The element cover-image is used to include cover images for Elsevier books.

Usage

The content for cover-image consists of a single ce:figure.

XML

```
<cover-image>
  <ce:figure id="f1">...</ce:figure>
</cover-image>
```

Version history

This element first appeared in Elsevier Book DTD 5.2.0. It is optional to be backward compatible with earlier versions of the DTD.

dedication

Declaration

Model (Book DTD 5.2.0–Book DTD 5.6.0)

```
<!ELEMENT  dedication            ( ce:simple-para+ )>
```

Description

The element dedication is used to tag dedications from book-level authors or editors that often appear in a book's front matter material.

Usage

Content for dedication consists of required/repeatable ce:simple-para.

XML

```
<dedication>
  <ce:simple-para id="sp03">There are so many people I must
    thank for the help they provided me in the creation of
    this book...</ce:simple-para>
  <ce:simple-para id="sp04">And what sort of husband and father
   would I be if I forgot to mention my wonderful wife and
   children...</ce:simple-para>
</dedication>
```

Version history

This element first appeared in Elsevier Book DTD 5.2.0.

This element should no longer be used after DTD 5.2.0 as dedications are now captured as individual items within front. See the CAP guide documentation for detailed guidance.

ehs-book

Declaration

Model (Book DTD 5.1.0, Book DTD 5.1.1)

```
<!ELEMENT  ehs-book              ( info, top, ce:floats?, front, body,
                                   rear )>
<!ATTLIST  ehs-book
           xmlns                 CDATA             #FIXED %ES.xmlns;
           version               CDATA             #FIXED '5.1'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %language;        'en'
           docsubtype            %docsubtype;      #FIXED "ehs">
```

Description

The element ehs-book is the top-level element for Elsevier Health Science books. A majority of books should be able to be captured using the content model from this DTD.

Usage

An EHS Books dataset can be used to capture most Elsevier Health Science book publications.

Book content consists of a hub file used to reflect hierarchy in body above chapter, as well as to call all of the lower-level doctypes (e.g. chapter, index) into the book. Contrary to serial publications, where the item and the hub have different DTDs for historical reasons, the hub and items of an EHS book are structured with different top-level elements (doctypes) of the same DTD.

The hub's top-level element is ehs-book. It consists of required info and top, optional ce:floats and required front, body, and rear elements.

It has several required attributes:

- xmlns: http://www.elsevier.com/xml/ehs-book/dtd
- version: 5.1
- xmlns:ce: http://www.elsevier.com/xml/common/dtd
- xmlns:xlink: http://www.w3.org/1999/xlink
- xml:lang: en (default value)
- docsubtype: ehs

XML

```
<!DOCTYPE ehs-book
  PUBLIC "-//ES//DTD ehs book DTD version 5.1.1//EN//XML"
  "ehs_book511.dtd" []>
<ehs-book>
  <info>
    ...
  </info>
  <top>
    ...
```

```
    </top>
    <front>
      ...
    </front>
    <body>
      ...
    </body>
    <rear>
      ...
    </rear>
  </ehs-book>
```

Version history

In Book DTD the new element top was added and the attribute docsubtype.

This element is superseded by book from Book DTD 5.2 onwards.

exam

Declaration

Model (Book DTD 5.1.0–Book DTD 5.2.1)

```
<!ELEMENT  exam                ( ce:title?, ce:exam-questions,
                                 ce:exam-answers? )>
```

Model (Book DTD 5.3.0–Book DTD 5.4.0)

```
<!ELEMENT  exam                ( ce:title?, ce:exam-questions,
                                 ce:exam-answers? )>
<!ATTLIST  exam
           id                  ID              #IMPLIED
           role                CDATA           #IMPLIED>
```

Model (Book DTD 5.5.0, Book DTD 5.6.0)

```
<!ELEMENT  exam                ( ce:title?, ( ( ce:exam-questions,
                                 ce:exam-answers? ) | ce:exam-
                                 answers ) )>
<!ATTLIST  exam
           id                  ID              #IMPLIED
           role                CDATA           #IMPLIED
           view                %view;          'all'>
```

Description

The element exam is used to capture review questions and answers that appear within many different types of books.

Usage

An exam consists of an optional ce:title, followed by a ce:exam-questions or a ce:exam-answers, or both.

It has an optional id, an optional role and an optional view. No roles are currently defined.

XML

```
<exam id="exam1">
  <ce:title id="t1">Quiz from Section 1</ce:title>
  <ce:exam-questions id="eqa1">
    <ce:section-title id="st1">Questions</ce:section-title>
      <ce:para id="p1">...</ce:para>
  </ce:exam-questions>
  <ce:exam-answers id="eqa2">
    <ce:section-title id="st2">Answers</ce:section-title>
    <ce:para id="p2">...</ce:para>
  </ce:exam-answers>
</exam>
```

Version history

In version 5.3.0 the optional id and role attributes were added. In version 5.5.0 the model was changed allowing for an exam containing only answers. Optional attribute view was added in the same version.

examination

Declaration

Model (Book DTD 5.1.0, Book DTD 5.1.1)

```
<!ELEMENT  examination          ( info, ce:floats?, ce:label?, ce:title,
                                  ce:author-group*, ce:intro?, exam+ )>
<!ATTLIST  examination
           id                   ID                 #REQUIRED
           xmlns                CDATA              #FIXED %ES.xmlns;
           version              CDATA              #FIXED '5.1'
           xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
           xml:lang             %language;         'en'
           docsubtype           %docsubtype;       #FIXED "exm">
```

Model (Book DTD 5.2.0, Book DTD 5.2.1)

```
<!ELEMENT  examination          ( info, ce:floats?, ce:label?, ce:title,
                                  ce:author-group*, ce:intro?, exam* )>
<!ATTLIST  examination
           id                   ID                 #REQUIRED
           xmlns                CDATA              #FIXED %ESBK.xmlns;
           version              CDATA              #FIXED '5.2'
           xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
           xml:lang             %language;         'en'
           role                 CDATA              #IMPLIED
           docsubtype           %docsubtype;       #FIXED "exm">
```

Model (Book DTD 5.3.0, Book DTD 5.3.1)

```
<!ELEMENT  examination          ( info, ce:floats?, ce:label?, ce:title,
                                  ce:author-group*, ce:intro?, exam* )>
<!ATTLIST  examination
           xmlns                CDATA              #FIXED %ES.xmlns;
           version              CDATA              #FIXED '5.3'
           xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
           xml:lang             %iso639;           'en'
           id                   ID                 #REQUIRED
           role                 CDATA              #IMPLIED
           docsubtype           %docsubtype;       #FIXED "exm">
```

Model (Book DTD 5.4.0)

```
<!ELEMENT  examination          ( info, ce:floats?, ce:label?, ce:title,
                                  ce:author-group*, ce:intro?, exam* )>
<!ATTLIST  examination
           xmlns                CDATA              #FIXED %ES.xmlns;
           version              CDATA              #FIXED '5.4'
           xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
           xml:lang             %iso639;           'en'
           id                   ID                 #REQUIRED
           role                 CDATA              #IMPLIED
           docsubtype           ( exm|ret|rem|dup )
                                                   "exm">
```

Model (Book DTD 5.5.0)

```
<!ELEMENT  examination          ( info, ce:floats?, ce:label?, ce:title,
                                  ce:author-group*, ce:intro?, exam* )>
<!ATTLIST  examination
           xmlns                CDATA             #FIXED %ES.xmlns;
           version              CDATA             #FIXED '5.5'
           xmlns:ce             CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA             #FIXED %XLINK.xmlns;
           xml:lang             %iso639;          'en'
           id                   ID                #REQUIRED
           role                 CDATA             #IMPLIED
           docsubtype           ( exm|ret|rem|dup )
                                                  "exm">
```

Model (Book DTD 5.6.0)

```
<!ELEMENT  examination          ( info, ce:floats?, ce:label?, ce:title,
                                  ce:author-group*, ce:intro?, exam* )>
<!ATTLIST  examination
           xmlns                CDATA             #FIXED %ES.xmlns;
           version              CDATA             #FIXED '5.6'
           xmlns:ce             CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA             #FIXED %XLINK.xmlns;
           xml:lang             %iso639;          'en'
           id                   ID                #REQUIRED
           role                 CDATA             #IMPLIED
           docsubtype           ( exm|ret|rem|dup )
                                                  "exm">
```

Description

The element examination is used to capture review questions that appear as their own item within many different types of books.

Usage

The examination element is one of the top-level elements (doctypes) of the Books DTD. It is used to capture a series of review questions when they appear as a separate item in their own XML file, using the examination DOCTYPE and PUBLIC identifier, and is called into the central hub file for the book using the ce:include-item element.

The content for examination consists of required info, optional ce:floats, optional ce:label, followed by required ce:title, optional/repeatable ce:author-group, optional ce:intro, followed by required/repeatable exam.

It has an optional role, along with several required attributes:

- id
- xmlns: http://www.elsevier.com/xml/book/dtd
- version: 5.4
- xmlns:ce: http://www.elsevier.com/xml/common/dtd
- xmlns:xlink: http://www.w3.org/1999/xlink
- xml:lang: en (default value)
- docsubtype: exm (default value), ret, rem or dup

XML

```
<!DOCTYPE examination PUBLIC "-//ES//DTD book DTD
  version 5.4.0//EN//XML" "book540.dtd" []>
<examination id="exm1" docsubtype="exm">
  <info>
    <ce:pii>B978-0-323-01679-7.10003-8</ce:pii>
    <ce:isbn>978-0-323-01679-7</ce:isbn>
    <ce:copyright type="full-transfer"
      year="2003">Mosby, Inc.</ce:copyright>
  </info>
  <ce:floats>
    ...
  </ce:floats>
  <ce:label>Unit 1</ce:label>
  <ce:title id="t1">Core Issues in Primary Care</ce:title>
  <ce:author-group id="aug1">
    ...
  </ce:author-group>
  <ce:intro id="in1">
    <ce:para id="p1">Text of opening paragraph...</ce:para>
  </ce:intro>
  <exam>
    <ce:title id="t2">Section 1</ce:title>
    <ce:exam-questions id="eq1">
      <ce:section-title id="st1">Questions</ce:section-title>
      <ce:para id="p2">...</ce:para>
    </ce:exam-questions>
    <ce:exam-answers id="exa1">
      <ce:section-title id="st2">Answers</ce:section-title>
      <ce:para id="p3">...</ce:para>
    </ce:exam-answers>
  </exam>
  <exam>
    <ce:title id="t3">Section 2</ce:title>
    <ce:exam-questions id="eq2">
      <ce:section-title id="st3">Questions</ce:section-title>
      <ce:para id="p4">...</ce:para>
    </ce:exam-questions>
    <ce:exam-answers id="exa2">
      <ce:section-title id="st4">Answers</ce:section-title>
      <ce:para id="p5">...</ce:para>
    </ce:exam-answers>
  </exam>
</examination>
```

Version history

In Elsevier Book DTD 5.2.0 the optional attribute `role` was added and subelement `exam` became optional.

In Elsevier Book DTD 5.4.0 three more possible values were added for attribute `docsubtype`.

fb-non-chapter

Declaration

Model (Book DTD 5.1.0)

```
<!ELEMENT  fb-non-chapter        ( info, ce:floats?, ce:label?,
                                   ce:title, ( ce:author-group
                                   | ce:nomenclature | ce:para |
                                   ce:section )*, ce:bibliography? )>
<!ATTLIST  fb-non-chapter
           id                    ID                #REQUIRED
           xmlns                 CDATA             #FIXED %ES.xmlns;
           version               CDATA             #FIXED '5.1'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %language;        'en'
           docsubtype            %docsubtype;      #REQUIRED>
```

Model (Book DTD 5.1.1)

```
<!ELEMENT  fb-non-chapter        ( info, ce:floats?, ce:label?,
                                   ce:title, ( ce:author-group
                                   | ce:nomenclature | ce:para |
                                   ce:section )*, ce:bibliography? ,
                                   ce:further-reading? )>
<!ATTLIST  fb-non-chapter
           id                    ID                #REQUIRED
           xmlns                 CDATA             #FIXED %ES.xmlns;
           version               CDATA             #FIXED '5.1'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %language;        'en'
           docsubtype            %docsubtype;      #REQUIRED>
```

Model (Book DTD 5.2.0, Book DTD 5.2.1)

```
<!ELEMENT  fb-non-chapter        ( info, ce:floats?, ce:label?,
                                   ce:title, ( ce:author-group
                                   | ce:nomenclature | ce:para |
                                   ce:section )*, ce:bibliography? ,
                                   ce:further-reading? )>
<!ATTLIST  fb-non-chapter
           id                    ID                #REQUIRED
           xmlns                 CDATA             #FIXED %ESBK.xmlns;
           version               CDATA             #FIXED '5.2'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %language;        'en'
           role                  CDATA             #IMPLIED
           docsubtype            %docsubtype;      #REQUIRED>
```

Model (Book DTD 5.3.0, Book DTD 5.3.1)

```
<!ELEMENT  fb-non-chapter        ( info, ce:floats?, ce:label?,
                                   ce:title, ( ce:author-group
                                   | ce:nomenclature | ce:para |
                                   ce:section )*, ce:bibliography? ,
                                   ce:further-reading? )>
```

```
<!ATTLIST  fb-non-chapter
           xmlns                CDATA             #FIXED %ES.xmlns;
           version              CDATA             #FIXED '5.3'
           xmlns:ce             CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA             #FIXED %XLINK.xmlns;
           xml:lang             %iso639;          'en'
           id                   ID                #REQUIRED
           role                 CDATA             #IMPLIED
           docsubtype           %docsubtype;      #REQUIRED>
```

Model (Book DTD 5.4.0)

```
<!ELEMENT  fb-non-chapter       ( info, ce:floats?, ce:label?,
                                  ce:title, ( ce:author-group
                                  | ce:nomenclature | ce:para |
                                  ce:section )*, ce:bibliography? ,
                                  ce:further-reading? )>
<!ATTLIST  fb-non-chapter
           xmlns                CDATA             #FIXED %ES.xmlns;
           version              CDATA             #FIXED '5.4'
           xmlns:ce             CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA             #FIXED %XLINK.xmlns;
           xml:lang             %iso639;          'en'
           id                   ID                #REQUIRED
           role                 CDATA             #IMPLIED
           docsubtype           %docsubtype;      #REQUIRED>
```

Model (Book DTD 5.5.0)

```
<!ELEMENT  fb-non-chapter       ( info, ce:floats?, ce:label?,
                                  ce:title, ( ce:author-group
                                  | ce:nomenclature | ce:para |
                                  ce:section )*, ce:bibliography? ,
                                  ce:further-reading? )>
<!ATTLIST  fb-non-chapter
           xmlns                CDATA             #FIXED %ES.xmlns;
           version              CDATA             #FIXED '5.5'
           xmlns:ce             CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA             #FIXED %XLINK.xmlns;
           xml:lang             %iso639;          'en'
           id                   ID                #REQUIRED
           role                 CDATA             #IMPLIED
           docsubtype           %docsubtype;      #REQUIRED>
```

Model (Book DTD 5.6.0)

```
<!ELEMENT  fb-non-chapter       ( info, ce:floats?, ce:label?,
                                  ce:title, ( ce:author-group
                                  | ce:nomenclature | ce:para |
                                  ce:section )*, ce:bibliography? ,
                                  ce:further-reading? )>
<!ATTLIST  fb-non-chapter
           xmlns                CDATA             #FIXED %ES.xmlns;
           version              CDATA             #FIXED '5.6'
           xmlns:ce             CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA             #FIXED %XLINK.xmlns;
           xml:lang             %iso639;          'en'
           id                   ID                #REQUIRED
           role                 CDATA             #IMPLIED
           docsubtype           %docsubtype;      #REQUIRED>
```

Description

The element fb-non-chapter is used to capture special front and back matter non-chapter divisions as individual XML files.

Usage

The fb-non-chapter top-level element is used to capture material that appears in items that occur within the front (such as foreword, preface, about the author, etc.) and back matter (such as appendices) of books. The element should not be used to capture chapters within the book body.

There is a PUBLIC identifier and DOCTYPE declaration for fb-non-chapter, and individual XML files get called into the front and rear of the book's central hub file using the ce:include-item element.

A docsubtype attribute is required. The possible values for this attribute include:

- app: Appendix
- bio: Biography or About the Author
- for: Foreword
- pre: Preface
- ack: Acknowledgments
- ctr: Contributors
- rev: Reviewers
- htu: How to Use this Publication
- ded: Dedication
- cop: Copyright
- ret: Retraction
- rem: Removal
- dup: Duplicate
- ovw: Overview
- lit: Literature Review
- edb: Editorial Board
- lst: List

Other values should not be used with fb-non-chapter.

The content of fb-non-chapter consists of a required info, optional ce:floats, an optional ce:label, an ce:title, followed by optional and repeatable group of ce:author-group ce:nomenclature and/or ce:para and/or ce:sections (the order is the order as these appear in the book) followed by an optional ce:bibliography, followed by optional ce:further-reading.

It has an optional role, along with several required attributes:

- id
- xmlns: http://www.elsevier.com/xml/book/dtd
- version: 5.4
- xmlns:ce: http://www.elsevier.com/xml/common/dtd
- xmlns:xlink: http://www.w3.org/1999/xlink
- xml:lang: en (default value)
- docsubtype

The following role values can be used in case the document contains a list (i.e. when the docsubtype attribute has the value lst):

- list-of-figures
- list-of-tables

XML

```
<!DOCTYPE fb-non-chapter
  PUBLIC "-//ES//DTD book DTD version 5.4.0//EN//XML"
  "book540.dtd" []>
<fb-non-chapter docsubtype="app" id="appA">
  <info>
    <ce:pii>B978-0-323-01679-7.10003-8</ce:pii>
    <ce:isbn>978-0-323-01679-7</ce:isbn>
    <ce:copyright type="full-transfer"
      year="2003">Mosby, Inc.</ce:copyright>
  </info>
  <ce:floats>
    ...
  </ce:floats>
  <ce:label>Appendix A</ce:label>
  <ce:title id="t1">Color Plates</ce:title>
  <ce:author-group id="aug1">
    ...
  </ce:author-group>
  <ce:para id="p1">Text of opening paragraph...</ce:para>
  <ce:section is="s1">
    <ce:section-title id="st1">...</ce:section-title>
    <ce:para id="p1">...</ce:para>
  </ce:section>
  <ce:bibliography id="bibl1">
    ...
  </ce:bibliography>
</fb-non-chapter>
```

Version history

Element ce:further-reading was added in EHS Books DTD 5.1.1 to allow for unnumbered references.

In Elsevier Book DTD 5.2.0 the optional attribute role was added.

In a patch to Elsevier Book DTD 5.2.0 the docsubtype ded was added.

In Elsevier Book DTD 5.3.1 the docsubtypes ret and ovw were added.

In Elsevier Book DTD 5.4.0 the docsubtypes rem, dup, lit, edb and lst were added.

Light reading

In a PreCAP delivery where the files are structured according to the Elsevier Book DTD 5.2.0, an fb-non-chapter DOCTYPE is delivered with weight UltraLight.

front

Declaration

Model (Book DTD 5.1.0, Book DTD 5.1.1)

```
<!ELEMENT  front                ( ce:include-item )+>
```

Model (Book DTD 5.2.0–Book DTD 5.6.0)

```
<!ELEMENT  front                ( ce:include-item+ )>
```

Description

The element front is used to capture the front matter of Elsevier books.

Usage

The front element is used to delimit and capture the front matter material in Elsevier books. It consists of required and repeatable ce:include-item elements. The element front, child of book, appears in the hub file for the book.

- The table of contents will be only be delivered as part of the "fat" PDF file for printing. An electronic version of the table of contents is replicated by the hub file and could be used by downstream applications for this purpose.
- The list of contributing authors (docsubtype: ctr) and/or reviewers (docsubtype: rev) should each be converted as a separate fb-non-chapter file and called into front using ce:include-item elements.
- Foreword (docsubtype: for), Preface (docsubtype: pre), Acknowledgments (docsubtype: ack), and Biography (docsubtype: bio), should also be converted as separate fb-non-chapter files and called into front using ce:include-item elements.

XML

```
<front>
  <ce:include-item>
    <ce:pii>B0-323-01679-0/10027-7</ce:pii>
    <ce:title id="t1">Contributors</ce:title>
    <ce:pages>
      <ce:first-page>v</ce:first-page>
      <ce:last-page>vii</ce:last-page>
    </ce:pages>
  </ce:include-item>
  <ce:include-item>
    <ce:pii>B0-323-01679-0/10001-0</ce:pii>
    <ce:title id="t2">Reviewers</ce:title>
    <ce:pages>
      <ce:first-page>viii</ce:first-page>
      <ce:last-page>viii</ce:last-page>
    </ce:pages>
  </ce:include-item>
  <ce:include-item>
    <ce:pii>B0-323-01679-0/10002-2</ce:pii>
    <ce:title id="t3">Preface</ce:title>
```

```
      <ce:pages>
        <ce:first-page>ix</ce:first-page>
        <ce:last-page>x</ce:last-page>
      </ce:pages>
    </ce:include-item>
    <ce:include-item>
      <ce:pii>B0-323-01679-0/10003-4</ce:pii>
      <ce:title id="t4">Acknowledgments</ce:title>
      <ce:pages>
        <ce:first-page>xi</ce:first-page>
        <ce:last-page>xi</ce:last-page>
      </ce:pages>
    </ce:include-item>
  </front>
```

glossary

Declaration

Model (Book DTD 5.1.0, Book DTD 5.1.1)

```
<!ELEMENT  glossary              ( info, ce:glossary+ )>
<!ATTLIST  glossary
           id                    ID                #REQUIRED
           xmlns                 CDATA             #FIXED %ES.xmlns;
           version               CDATA             #FIXED '5.1'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %language;        'en'
           docsubtype            %docsubtype;      #FIXED "gls">
```

Model (Book DTD 5.2.0, Book DTD 5.2.1)

```
<!ELEMENT  glossary              ( info, ce:label?, ce:glossary* )>
<!ATTLIST  glossary
           id                    ID                #REQUIRED
           xmlns                 CDATA             #FIXED %ESBK.xmlns;
           version               CDATA             #FIXED '5.2'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %language;        'en'
           role                  CDATA             #IMPLIED
           docsubtype            %docsubtype;      #FIXED "gls">
```

Model (Book DTD 5.3.0, Book DTD 5.3.1)

```
<!ELEMENT  glossary              ( info, ce:label?, ce:title?,
                                   ce:glossary* )>
<!ATTLIST  glossary
           xmlns                 CDATA             #FIXED %ES.xmlns;
           version               CDATA             #FIXED '5.3'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %iso639;          'en'
           id                    ID                #REQUIRED
           role                  CDATA             #IMPLIED
           docsubtype            %docsubtype;      #FIXED "gls">
```

Model (Book DTD 5.4.0)

```
<!ELEMENT  glossary              ( info, ce:label?, ce:title?,
                                   ce:glossary* )>
<!ATTLIST  glossary
           xmlns                 CDATA             #FIXED %ES.xmlns;
           version               CDATA             #FIXED '5.4'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %iso639;          'en'
           id                    ID                #REQUIRED
           role                  CDATA             #IMPLIED
           docsubtype            ( gls|ret|rem|dup )
                                                   "gls">
```

Model (Book DTD 5.5.0)

```
<!ELEMENT  glossary              ( info, ce:label?, ce:title?,
                                   ce:glossary* )>
<!ATTLIST  glossary
           xmlns                 CDATA              #FIXED %ES.xmlns;
           version               CDATA              #FIXED '5.5'
           xmlns:ce              CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA              #FIXED %XLINK.xmlns;
           xml:lang              %iso639;           'en'
           id                    ID                 #REQUIRED
           role                  CDATA              #IMPLIED
           docsubtype            ( gls|ret|rem|dup )
                                                    "gls">
```

Model (Book DTD 5.6.0)

```
<!ELEMENT  glossary              ( info, ce:label?, ce:title?,
                                   ce:glossary*, ce:bibliography?,
                                   ce:further-reading? )>
<!ATTLIST  glossary
           xmlns                 CDATA              #FIXED %ES.xmlns;
           version               CDATA              #FIXED '5.6'
           xmlns:ce              CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA              #FIXED %XLINK.xmlns;
           xml:lang              %iso639;           'en'
           id                    ID                 #REQUIRED
           role                  CDATA              #IMPLIED
           docsubtype            ( gls|ret|rem|dup )
                                                    "gls">
```

Description

The element glossary is used to capture glossaries of special terms that can appear in a book's back matter.

Usage

The glossary element is used to capture a glossary of special terms when they appear in the back matter of a book. When used, glossary will always appear as a top-level element, with its own DOCTYPE declaration and PUBLIC identifier appearing at the top of the XML file. A glossary gets called into the book's hub file by a ce:include-item element.

The content for glossary consists of required info, followed by optional ce:label, optional ce:title, and optional/repeatable ce:glossary elements.

It has an optional role, along with several required attributes:

- id
- xmlns: http://www.elsevier.com/xml/book/dtd
- version: 5.4
- xmlns:ce: http://www.elsevier.com/xml/common/dtd
- xmlns:xlink: http://www.w3.org/1999/xlink
- xml:lang: en (default value)
- docsubtype: gls (default value), ret, rem or dup

XML

```
<!DOCTYPE glossary
  PUBLIC "-//ES//DTD book DTD version 5.4.0//EN//XML"
  "book540.dtd" []>
<glossary id="gloss" docsubtype="gls">
  <info>
    <ce:pii>B978-0-323-01679-7.10003-8</ce:pii>
    <ce:isbn>978-0-323-01679-7</ce:isbn>
    <ce:copyright type="full-transfer"
      year="2003">Mosby, Inc.</ce:copyright>
  </info>
  <ce:title id="t1">Glossary</ce:title>
  <ce:glossary id="gl1">
    <ce:glossary-sec id="gs1">
      <ce:section-title id="st1">A</ce:section-title>
      <ce:glossary-entry id="ge1">
        <ce:glossary-heading>aardvark</ce:glossary-heading>
        <ce:glossary-def id="gd1">An unusual-looking, long-nosed
          creature that eats ants.</ce:glossary-def>
      </ce:glossary-entry>
      ...
    </ce:glossary-sec>
  </ce:glossary>
</glossary>
```

Version history

In Elsevier Book DTD 5.2.0 the optional attribute `role` and optional subelement`ce:label` were added. Subelement `ce:glossary` was made optional/repeatable to allow for Ultra-light delivery of book backfile projects.

In the Elsevier Book DTD 5.3.0 the `ce:title` was added to allow for proper title tagging in synch with other DOCTYPES.

In Elsevier Book DTD 5.4.0 three more possible values were added for attribute `docsub-type`.

The `ce:section-title` element, child of `ce:glossary` should no longer be used for Glossary item titles.

index

Declaration

Model (Book DTD 5.1.0, Book DTD 5.1.1)

```
<!ELEMENT  index                ( info, ce:index+ )>
<!ATTLIST  index
           id                   ID                 #REQUIRED
           xmlns                CDATA              #FIXED %ES.xmlns;
           version              CDATA              #FIXED '5.1'
           xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
           xml:lang             %language;         'en'
           docsubtype           %docsubtype;       #FIXED "idx">
```

Model (Book DTD 5.2.0, Book DTD 5.2.1)

```
<!ELEMENT  index                ( info, ce:label?, ce:index* )>
<!ATTLIST  index
           id                   ID                 #REQUIRED
           xmlns                CDATA              #FIXED %ESBK.xmlns;
           version              CDATA              #FIXED '5.2'
           xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
           xml:lang             %language;         'en'
           role                 CDATA              #IMPLIED
           docsubtype           %docsubtype;       #FIXED "idx">
```

Model (Book DTD 5.3.0, Book DTD 5.3.1)

```
<!ELEMENT  index                ( info, ce:label?, ce:title?,
                                  ce:index* )>
<!ATTLIST  index
           xmlns                CDATA              #FIXED %ES.xmlns;
           version              CDATA              #FIXED '5.3'
           xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
           xml:lang             %iso639;           'en'
           id                   ID                 #REQUIRED
           role                 CDATA              #IMPLIED
           docsubtype           %docsubtype;       #FIXED "idx">
```

Model (Book DTD 5.4.0)

```
<!ELEMENT  index                ( info, ce:label?, ce:title?,
                                  ce:index* )>
<!ATTLIST  index
           xmlns                CDATA              #FIXED %ES.xmlns;
           version              CDATA              #FIXED '5.4'
           xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
           xml:lang             %iso639;           'en'
           id                   ID                 #REQUIRED
           role                 CDATA              #IMPLIED
           docsubtype           ( idx|ret|rem|dup )
                                                   "idx">
```

Model (Book DTD 5.5.0)

```
<!ELEMENT  index                ( info, ce:label?, ce:title?,
                                  ce:index* )>
<!ATTLIST  index
           xmlns                CDATA              #FIXED %ES.xmlns;
           version              CDATA              #FIXED '5.5'
           xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
           xml:lang             %iso639;           'en'
           id                   ID                 #REQUIRED
           role                 CDATA              #IMPLIED
           docsubtype           ( idx|ret|rem|dup )
                                                   "idx">
```

Model (Book DTD 5.6.0)

```
<!ELEMENT  index                ( info, ce:label?, ce:title?,
                                  ce:index* )>
<!ATTLIST  index
           xmlns                CDATA              #FIXED %ES.xmlns;
           version              CDATA              #FIXED '5.6'
           xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
           xml:lang             %iso639;           'en'
           id                   ID                 #REQUIRED
           role                 CDATA              #IMPLIED
           docsubtype           ( ind|idx|ret|rem|dup )
                                                   "ind">
```

Description

The element index is used to tag indices of terms which usually appear in a book's back matter.

Usage

The index element will always appear as a top-level element, with its own DOCTYPE declaration and PUBLIC identifier appearing at the top of the XML file. An index gets called into the book's hub file by a ce:include-item element.

Content for index consists of required info, followed by optional ce:label, optional ce:title, followed by optional/repeatable ce:index elements.

Multiple indices (e.g. Subject Index, Author Index, etc.) should be handled as separate index files, called into the book's hub file with separate ce:include-item elements.

Each index should be organized according to the following conventions:

- One ce:index element which encapsulates the complete index.
- Each ce:index element would contain multiple ce:index-sec elements, one for each letter of the alphabet.
- If the terms are separated by alphas that appear in the hardcopy, the ce:section-title, child of ce:index-sec, should contain the letter of the alphabet for each index section.

Due to their large size, it is envisioned that large index files will be developed in smaller pieces at book typesetters, then combined into a single, large file prior to delivery.

It is quite common in hardcopy book indices, in an effort to save space (and paper) that the first second-level index term appears on the same line as its parent primary index term. Therefore, this needs to be tagged as in the following example (where ce:index-heading, etc., have been left out for clarity):

Swallowing, assessment of
pediatric variations in

Great care must be taken to ensure that such situations are tagged properly in the following manner:

XML

```
<ce:index-entry id="idx824">Swallowing
  <ce:index-entry id="idx825a">assessment of</ce:index-entry>
  <ce:index-entry id="idx825b">pediatric variations in</ce:index-entry>
</ce:index-entry>
```

It has an optional role, along with several required attributes:

- id
- xmlns: http://www.elsevier.com/xml/book/dtd
- version: 5.4
- xmlns:ce: http://www.elsevier.com/xml/common/dtd
- xmlns:xlink: http://www.w3.org/1999/xlink
- xml:lang: en (default value)
- docsubtype: ind (default value), idx (deprecated), ret, rem or dup

Currently there are no roles defined, however there are two roles defined for ce:index: author and subject.

XML

```
<!DOCTYPE index PUBLIC "-//ES//DTD book DTD
  version 5.4.0//EN//XML" "book540.dtd" []>
<index docsubtype="ind" id="index">
  <info>
    <ce:pii>B978-0-7216-9204-3.00001-6</ce:pii>
    <ce:isbn>978-0-7216-9204-3</ce:isbn>
    <ce:copyright tpe="full-transfer"
      year="2003">Mosby, Inc.</ce:copyright>
  </info>
  <ce:title id="t1">Index</ce:title>
  <ce:index role="subject" id="ix1">
    <ce:index-sec id="ixs1">
      <ce:section-title id="st1">A</ce:section-title>
      <ce:index-entry id="idx001">
        <ce:index-heading>aardvark</ce:index-heading>
        <ce:intra-ref id="iar001" href="...">1</ce:intra-ref>
      </ce:index-entry>
      <ce:index-entry id="idx002">
        ...
      </ce:index-entry>
      ...
    </ce:index-sec>
  </ce:index>
</index>
```

Version history

In Elsevier Book DTD 5.2.0 the optional attribute `role` and optional subelement `ce:label` were added. Subelement `ce:index` was made optional/repeatable to allow for Ultralight delivery of book backfile projects.

In Elsevier Book DTD 5.3.0 the `ce:title` was also added to allow for proper title and tagging in sync with other DOCTYPES.

In Elsevier Book DTD 5.4.0 three more possible values were added for attribute `docsubtype`.

In Elsevier Book DTD 5.6.0 value `ind` was added for attribute `docsubtype`, replacing `ind` which will be deprecated.

info

Declaration

Model (Book DTD 5.1.0–Book DTD 5.4.0)

```
<!ELEMENT  info                ( ce:pii, ce:doi?, ce:isbn, ce:issn?,
                                 ce:document-thread?, ce:copyright,
                                 ce:imprint?, ce:doctopics? )>
```

Model (Book DTD 5.5.0, Book DTD 5.6.0)

```
<!ELEMENT  info                ( ce:pii, ce:doi?, ce:isbn, ce:issn?,
                                 ce:document-thread?, ce:copyright,
                                 ce:imprint?, ce:doctopics?,
                                 ce:preprint?, ce:associated-
                                 resource* )>
```

Description

The element info is a placeholder element for book-level metadata elements.

Usage

The info element contains book-project level metadata for the book item and hub. It duplicates a few items from the metadata transport scheme, but only enough to confirm that the book item and book project match. It contains the metadata of all top-level elements of the Books DTD: book, introduction, chapter, simple-chapter, examination, fb-non-chapter, glossary, bibliography, and index.

The info element consists of required ce:pii, optional ce:doi, required ce:isbn, optional ce:issn, optional ce:document-thread, required ce:copyright, optional ce:imprint, optional ce:doctopics and optional ce:preprint and zero or more ce:associated-resource elements.

XML

```
<info>
  <ce:pii>B978-0-323-01679-7.10003-8</ce:pii>
  <ce:isbn>978-0-323-01679-7</ce:isbn>
  <ce:copyright type="full-transfer"
    year="2003">Elsevier Inc.</ce:copyright>
</info>
```

Version history

Elements ce:preprint and ce:associated-resource were added in version 5.5.0.

introduction

Declaration

Model (Book DTD 5.1.0, Book DTD 5.1.1)

```
<!ELEMENT  introduction          ( info, ce:floats?, ce:title?,
                                   ce:author-group*, ce:sections,
                                   ce:bibliography* )>
<!ATTLIST  introduction
           id                    ID                #REQUIRED
           xmlns                 CDATA             #FIXED %ES.xmlns;
           version               CDATA             #FIXED '5.1'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %language;        'en'
           docsubtype            %docsubtype;      #FIXED "itr">
```

Model (Book DTD 5.2.0, Book DTD 5.2.1)

```
<!ELEMENT  introduction          ( info, ce:floats?, ce:title,
                                   ce:author-group*, ce:sections?,
                                   ( ce:bibliography | ce:further-
                                   reading )* )>
<!ATTLIST  introduction
           id                    ID                #REQUIRED
           xmlns                 CDATA             #FIXED %ESBK.xmlns;
           version               CDATA             #FIXED '5.2'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %language;        'en'
           role                  CDATA             #IMPLIED
           docsubtype            %docsubtype;      #FIXED "itr">
```

Model (Book DTD 5.3.0, Book DTD 5.3.1)

```
<!ELEMENT  introduction          ( info, ce:floats?, ce:title,
                                   ce:author-group*, ce:sections?,
                                   ( ce:bibliography | ce:further-
                                   reading )* )>
<!ATTLIST  introduction
           xmlns                 CDATA             #FIXED %ES.xmlns;
           version               CDATA             #FIXED '5.3'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %iso639;          'en'
           id                    ID                #REQUIRED
           role                  CDATA             #IMPLIED
           docsubtype            %docsubtype;      #FIXED "itr">
```

Model (Book DTD 5.4.0)

```
<!ELEMENT  introduction          ( info, ce:floats?, ce:title,
                                   ce:author-group*, ce:sections?,
                                   ( ce:bibliography | ce:further-
                                   reading )* )>
<!ATTLIST  introduction
           xmlns                 CDATA             #FIXED %ES.xmlns;
```

```
          version              CDATA              #FIXED '5.4'
          xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
          xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
          xml:lang             %iso639;           'en'
          id                   ID                 #REQUIRED
          role                 CDATA              #IMPLIED
          docsubtype           ( itr|ret|rem|dup )
                                                  "itr">
```

Model (Book DTD 5.5.0)

```
<!ELEMENT  introduction         ( info, ce:floats?, ce:title,
                                  ce:author-group*, ce:sections?,
                                  ( ce:bibliography | ce:further-
                                  reading )* )>
<!ATTLIST  introduction
           xmlns                CDATA              #FIXED %ES.xmlns;
           version              CDATA              #FIXED '5.5'
           xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
           xml:lang             %iso639;           'en'
           id                   ID                 #REQUIRED
           role                 CDATA              #IMPLIED
           docsubtype           ( itr|ret|rem|dup )
                                                   "itr">
```

Model (Book DTD 5.6.0)

```
<!ELEMENT  introduction         ( info, ce:floats?, ce:label?, ce:title,
                                  ce:author-group*, ce:sections?,
                                  ( ce:bibliography | ce:further-
                                  reading )* )>
<!ATTLIST  introduction
           xmlns                CDATA              #FIXED %ES.xmlns;
           version              CDATA              #FIXED '5.6'
           xmlns:ce             CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA              #FIXED %XLINK.xmlns;
           xml:lang             %iso639;           'en'
           id                   ID                 #REQUIRED
           role                 CDATA              #IMPLIED
           docsubtype           ( itr|ret|rem|dup )
                                                   "itr">
```

Description

The element `introduction` is used to capture introductory material which often appears at the beginning of parts or sections used to divide/introduce chapters by topic within the body of a book.

Usage

Since `part`s and/or `section`s often contain their own introductory material, the top-level `introduction` element is needed to properly capture this content. It gets called into the book's hub file using the `ce:include-item`.

The introduction element consists of optional `ce:floats`, optional `ce:label`, required `ce:title`, an optional/repeatable `ce:author-group`, followed by optional `ce:sections`, followed by optional/repeatable `ce:bibliography`s and/or `ce:further-reading`s.

It has an optional role, along with several required attributes:

- id
- xmlns: http://www.elsevier.com/xml/book/dtd
- version: 5.4
- xmlns:ce: http://www.elsevier.com/xml/common/dtd
- xmlns:xlink: http://www.w3.org/1999/xlink
- xml:lang: en (default value)
- docsubtype: itr (default value), ret, rem or dup

XML

```
<!DOCTYPE introduction
  PUBLIC "-//ES//DTD book DTD version 5.6.0//EN//XML"
  "book560.dtd" []>
<introduction id="part1-intro" docsubtype="itr">
  <info>
    <ce:pii>B978-0-323-01679-7.10003-8</ce:pii>
    <ce:isbn>978-0-323-01679-7</ce:isbn>
    <ce:copyright type="full-transfer"
      year="2003">Mosby, Inc.</ce:copyright>
  </info>
  <ce:floats>
    ...
  </ce:floats>
  <ce:label>Introduction</ce:label>
  <ce:title id="t1">Introduction</ce:title>
  <ce:author-group id="aug1">
    ...
  </ce:author-group>
  <ce:sections>
    <ce:para id="p1">Paragraph of introductory
      text for part or section.</ce:para>
  </ce:sections>
</introduction>
```

Version history

For Elsevier Book DTD 5.2.0, the subelement ce:sections was made optional to allow for PreCAP deliveries. The subelement ce:further-reading was also added for items without linked references.

In Elsevier Book DTD 5.4.0 three more possible values were added for attribute docsubtype.

In Elsevier Book DTD 5.6.0 subelement ce:label was added.

line

Declaration

Model (Book DTD 5.1.1–Book DTD 5.6.0)

```
<!ELEMENT  line                ( %richstring.data; )*>
```

Description

The element `line` is used to capture a line of text from a poem.

Usage

Content for line consists of `line`.

XML

```
<line>Roses are red</line>
```

Version history

This element first appeared in EHS Books DTD 5.1.1.

See also

See also elements `poem` and `stanza`.

objectives

Declaration

Model (Book DTD 5.1.1–Book DTD 5.6.0)

```
<!ELEMENT  objectives           ( ce:section-title?, ce:para+ )>
```

Description

The element objectives is used to capture the objectives of a chapter. This information often appears at the beginning of a book chapter.

Usage

Content for objectives consists of an optional ce:section-title, and required/repeatable ce:para.

XML

```
<objectives>
  <ce:section-title id="st1">Objectives</ce:section-title>
  <ce:para id="p1">The objectives for this chapter are
    for the student to ...</ce:para>
</objectives>
```

Version history

This element first appeared in EHS Books DTD 5.1.1.

outline

Declaration

Model (Book DTD 5.1.1–Book DTD 5.3.1)

```
<!ELEMENT  outline              ( ce:list )>
```

Model (Book DTD 5.4.0, Book DTD 5.5.0)

```
<!ELEMENT  outline              ( ce:list )>
<!ATTLIST  outline
           id                   ID              #IMPLIED
           role                 CDATA           #IMPLIED
           view                 %view;          'all'>
```

Model (Book DTD 5.6.0)

```
<!ELEMENT  outline              ( ce:section-title?, ce:list )>
<!ATTLIST  outline
           id                   ID              #IMPLIED
           role                 CDATA           #IMPLIED
           view                 %view;          'all'>
```

Description

The element outline is used to capture the outline of a chapter. This material often appears at the beginning of a book chapter.

Usage

The content for element outline consists of a required ce:list. It has optional attributes id, role and view. No roles are currently defined.

XML

```
<outline>
  <ce:list id="list02>
    <ce:section-title id="st01">Chapter Outline</ce:section-title>
    <ce:list-item id="listi06">
      <ce:para id="p88">Introduction</ce:para>
    </ce:list-item>
    <ce:list-item id="listi07">
      <ce:para id="p89">Background</ce:para>
    </ce:list-item>
    ...
  </ce:list>
</outline>
```

Version history

This element first appeared in EHS Books DTD 5.1.1. The attributes id, role and view were added in Elsevier Book DTD 5.4.0.

part

Declaration

Model (Book DTD 5.1.0)

```
<!ELEMENT  part                ( ce:label, ce:title?, ce:author-group*,
                                 introduction?, ( section | ce:include-
                                 item | ce:bibliography )+ )>
<!ATTLIST  part
           id                  ID              #REQUIRED>
```

Model (Book DTD 5.1.1)

```
<!ELEMENT  part                ( ce:label, ce:title?, ce:author-
                                 group*, ( section | ce:include-item |
                                 ce:further-reading )+ )>
<!ATTLIST  part
           id                  ID              #REQUIRED>
```

Model (Book DTD 5.2.0)

```
<!ELEMENT  part                ( ce:label, ce:title?, ce:author-
                                 group*, ( section | ce:include-item |
                                 ce:further-reading )+ )>
<!ATTLIST  part
           id                  ID              #REQUIRED
           role                CDATA           #IMPLIED>
```

Model (Book DTD 5.2.1)

```
<!ELEMENT  part                ( ce:label?, ce:title?, ce:author-
                                 group*, ( section | ce:include-item |
                                 ce:further-reading )+ )>
<!ATTLIST  part
           id                  ID              #REQUIRED
           role                CDATA           #IMPLIED>
```

Model (Book DTD 5.3.0–Book DTD 5.5.0)

```
<!ELEMENT  part                ( ce:label?, ce:title?, ce:author-
                                 group*, ( part | section | ce:include-
                                 item | ce:further-reading )+ )>
<!ATTLIST  part
           id                  ID              #REQUIRED
           role                CDATA           #IMPLIED>
```

Model (Book DTD 5.6.0)

```
<!ELEMENT  part                ( ce:label?, ce:title?, ce:author-
                                 group*, ce:intro?, ( part | section
                                 | ce:include-item | ce:further-
                                 reading )+ )>
<!ATTLIST  part
           id                  ID              #REQUIRED
           role                CDATA           #IMPLIED>
```

Description

The element part is used to capture the hierarchy above chapter and/or section when they occur within an Elsevier book.

Usage

The element part is a child of body and of volume. It is used when a large book is divided into parts in order to organize sections and/or chapters into groups. The element part appears in the hub file for the book.

The part elements can sometimes have their own introductions. These should be tagged as introduction and called into the hub file using ce:include-item.

In very rare cases, part elements can sometimes have their own bibliography. These should be tagged as bibliography and called into the hub file using ce:include-item.

The part element consists of an optional ce:label, followed by an optional ce:title, an optional/repeatable ce:author-group, then a required and repeatable grouping of parts, sections and/or ce:include-items and/or ce:further-reading.

It has one required attribute, id, and one optional attribute, role. The following values for role are defined.

- Archive
- ArticleTitle
- EntryTitle
- GenInfo
- Level
- SubjClass

XML

```
<part id="pA"><ce:label>Part A</ce:label>
  <ce:title id="t0">GENERAL ISSUES AND APPROACH TO DISEASE
    IN PRIMARY CARE MEDICINE</title>
  <ce:include-item>
     <ce:pii>B0-323-01679-0/10027-7</ce:pii>
     <ce:title id="t1">Introduction</ce:title>
     <ce:pages>
       <ce:first-page>1</ce:first-page>
       <ce:last-page>8</ce:last-page>
     </ce:pages>
   </ce:include-item>
   <section id="s1"><ce:label>Section 1</ce:label>
      <ce:title id="t2">Core Issues and Special Groups
        in Primary Care</ce:title>
      <ce:include-item>
        <ce:pii>B0-323-01679-0/10003-4</ce:pii>
        <ce:title id="t3">Core Issues in Primary Care</ce:title>
        <ce:pages>
          <ce:first-page>9</ce:first-page>
          <ce:last-page>18</ce:last-page>
        </ce:pages>
      </ce:include-item>
      ...
   </section>
   ...
</part>
```

Version history

Element `introduction` is a top-level element in EHS Books DTD 5.1.0. Since all top-level items are called into the book hub file with `ce:include-item`, subelement `introduction` was removed in EHS Books DTD 5.1.1. Subelement `ce:bibliography` was replaced by `ce:further-reading`.

In Elsevier Book DTD 5.2.0 the optional attribute `role` was added.

In Elsevier Book DTD 5.2.1 subelement `ce:label` was made optional.

In the Elsevier Book DTD 5.3.0 parts were allowed to recurse (part, child of part) to be able to properly handle MRWs.

Known bugs, hacks and problems

The `ce:further-reading` is deprecated and should no longer be used. It remains to allow for backward compatibility with earlier versions.

poem

Declaration

Model (Book DTD 5.1.1–Book DTD 5.2.1)

```
<!ELEMENT  poem                ( ce:title?, ce:author?, stanza+,
                                 ce:source? )>
```

Model (Book DTD 5.3.0–Book DTD 5.6.0)

```
<!ELEMENT  poem                ( ce:title?, ce:author?, stanza+,
                                 ce:source? )>
<!ATTLIST  poem
           id                  ID              #IMPLIED>
```

Description

The element poem is used to capture poetry that sometimes appear at the beginning of some book chapters.

Usage

Content for poem consists of an optional ce:title, optional ce:author, required/repeatable stanza and optional ce:source.

It has an optional id.

XML

```
<poem>
  <ce:title id="t1">Roses are Red</ce:title>
  <stanza>
    <line>Roses are red</line>
    <line>violets are blue</line>
    ...
  </stanza>
</poem>
```

Version history

This element first appeared in EHS Book DTD 5.1.1.

In the Elsevier Book DTD 5.3.0 the optional id attribute was added.

See also

See also elements stanza and line.

rear

Declaration

Model (Book DTD 5.1.0–Book DTD 5.6.0)

```
<!ELEMENT  rear                  ( rearpart+ )>
```

Description

The element rear is used to capture all of the material that appears in the back matter of Elsevier books.

Usage

The rear element is used to delimit and capture the material that appears in the back matter of Elsevier books. It is used in the book's hub file and consists of required and repeatable rearparts.

Lower-level doctypes — glossary, bibliography, index, and fb-non-chapter (appendices) — within the rear get called in using ce:include-item elements.

Although the DTD does not restrict where lower-level book doctypes get called into the hub file, doctypes other than those listed above should not be called into rear.

XML

```
<rear>
  <rearpart id="rearpart1">
    <ce:title id="t1">Appendices</ce:title>
    <ce:include-item>
      <ce:pii>B0-323-01679-0/10027-7</ce:pii>
      <ce:title>Appendix A</ce:title>
      <ce:pages>
        <ce:first-page>1000</ce:first-page>
        <ce:last-page>1001</ce:last-page>
      </ce:pages>
    </ce:include-item>
    <ce:include-item>
      <ce:pii>B0-323-01679-0/10001-0</ce:pii>
      <ce:title id="t2">Appendix B</ce:title>
      <ce:pages>
        <ce:first-page>1002</ce:first-page>
        <ce:last-page>1003</ce:last-page>
      </ce:pages>
    </ce:include-item>
  </rearpart>
  <rearpart id="rearpart2">
    <ce:include-item>
      <ce:pii>B0-323-01679-0/10002-2</ce:pii>
      <ce:title id="t3">Glossary</ce:title>
      <ce:pages>
        <ce:first-page>1004</ce:first-page>
        <ce:last-page>1020</ce:last-page>
      </ce:pages>
```

```
    </ce:include-item>
    <ce:include-item>
      <ce:pii>B0-323-01679-0/10003-4</ce:pii>
      <ce:title id="t4">Index</ce:title>
      <ce:pages>
        <ce:first-page>1021</ce:first-page>
        <ce:last-page>1099</ce:last-page>
      </ce:pages>
    </ce:include-item>
  </rearpart>
</rear>
```

rearpart

Declaration

Model (Book DTD 5.1.0, Book DTD 5.1.1)

```
<!ELEMENT  rearpart              ( ce:label?, ce:title?, ce:include-
                                   item+ )>
<!ATTLIST  rearpart
           id                    ID                #REQUIRED>
```

Model (Book DTD 5.2.0–Book DTD 5.6.0)

```
<!ELEMENT  rearpart              ( ce:label?, ce:title?, ce:author-
                                   group*, ce:include-item+ )>
<!ATTLIST  rearpart
           id                    ID                #REQUIRED
           role                  CDATA             #IMPLIED>
```

Description

The element rearpart is used to provide organizational divisions to material (usually appendices) that appears in the back matter of Elsevier books.

Usage

The rearpart element is usually used to give named or numbered divisions to material that appears within the back matter of Elsevier Health Science books, usually appendices. If the rear is not divided into parts, then there will only be one rearpart. The element appears in the book's hub file.

It consists of an optional ce:label, optional ce:title, an optional/repeatable ce:author-group, then one or more ce:include-items.

It has one required attribute, id and one optional attribute, role.

XML

```
<rearpart id="rearpart1">
  <ce:label>I</ce:label>
  <ce:title id="t1">Graphical Appendices</ce:title>
  <ce:include-item>
    <ce:pii>B0-323-01679-0/10027-7</ce:pii>
    <ce:title id="t2">Appendix A</ce:title>
    <ce:pages>
      <ce:first-page>1000</ce:first-page>
      <ce:last-page>1001</ce:last-page>
    </ce:pages>
  </ce:include-item>
  <ce:include-item>
    <ce:pii>B0-323-01679-0/10001-0</ce:pii>
    <ce:title id="t3">Appendix B</ce:title>
    <ce:pages>
      <ce:first-page>1002</ce:first-page>
      <ce:last-page>1003</ce:last-page>
    </ce:pages>
  </ce:include-item>
```

```
</rearpart>
<rearpart id="rearpart2">
  <ce:title id="t4">Tabular Appendices</ce:title>
  <ce:include-item>
    <ce:pii>B0-323-01679-0/10002-2</ce:pii>
    <ce:title id="t5">Appendix C</ce:title>
    <ce:pages>
      <ce:first-page>1004</ce:first-page>
      <ce:last-page>1005</ce:last-page>
    </ce:pages>
  </ce:include-item>
  <ce:include-item>
    <ce:pii>B0-323-01679-0/10003-4</ce:pii>
    <ce:title id="t6">Appendix D</ce:title>
    <ce:pages>
      <ce:first-page>1006</ce:first-page>
      <ce:last-page>1007</ce:last-page>
    </ce:pages>
  </ce:include-item>
</rearpart>
```

Version history

The optional/repeatable subelement `ce:author-group` and optional attribute `role` were both added in Elsevier Book DTD 5.2.0.

section

Declaration

Model (Book DTD 5.1.0)

```
<!ELEMENT  section              ( ce:label, ce:title?, ce:author-group*,
                                  introduction?, ( ce:include-item |
                                  ce:bibliography )+ )>
<!ATTLIST  section
           id                   ID                #REQUIRED>
```

Model (Book DTD 5.1.1)

```
<!ELEMENT  section              ( ce:label, ce:title?, ce:author-group*,
                                  ( ce:include-item | ce:further-
                                  reading )+ )>
<!ATTLIST  section
           id                   ID                #REQUIRED>
```

Model (Book DTD 5.2.0)

```
<!ELEMENT  section              ( ce:label, ce:title?, ce:author-group*,
                                  ( ce:include-item | ce:further-
                                  reading )+ )>
<!ATTLIST  section
           id                   ID                #REQUIRED
           role                 CDATA             #IMPLIED>
```

Model (Book DTD 5.2.1–Book DTD 5.5.0)

```
<!ELEMENT  section              ( ce:label?, ce:title?, ce:author-
                                  group*, ( ce:include-item |
                                  ce:further-reading )+ )>
<!ATTLIST  section
           id                   ID                #REQUIRED
           role                 CDATA             #IMPLIED>
```

Model (Book DTD 5.6.0)

```
<!ELEMENT  section              ( ce:label?, ce:title?, ce:author-
                                  group*, ce:intro?, ( ce:include-item |
                                  ce:further-reading )+ )>
<!ATTLIST  section
           id                   ID                #REQUIRED
           role                 CDATA             #IMPLIED>
```

Description

The element `section` is used to capture the hierarchy above chapter if/when they occur within Elsevier books.

Usage

A `section` is used in large books to organize `ce:include-item`s (chapters or examinations) into groups. It is a child of `body` and `volume` and/or `part` should not be confused with the common element `ce:section` that is used for subdivisions within items such as chapters.

A section can sometimes have its own introduction. These should be tagged as introduction and called into the hub file using ce:include-item.

In very rare cases, section elements can sometimes have their own bibliography. These should be tagged as bibliography and called into the hub file using ce:include-item.

The section element consists of an optional ce:label, an optional ce:title, an optional/repeatable ce:author-group, followed by one or more groupings of ce:include-items and/or ce:sections and/or ce:further-reading.

It has one required attribute, id and one optional attribute, role.

XML

```
<section id="s1"><ce:label>Section 1</ce:label>
  <ce:title id="t1">Core Issues and Special Groups
    in Primary Care</ce:title>
  <ce:include-item>
    <ce:pii>B0-323-01679-0/10003-4</ce:pii>
    <ce:title id="t2">Core Issues in Primary Care</ce:title>
    <ce:pages>
      <ce:first-page>1</ce:first-page>
      <ce:last-page>8</ce:last-page>
    </ce:pages>
  </ce:include-item>
  <ce:include-item>
    <ce:pii>B0-323-01679-0/10027-7</ce:pii>
    <ce:title id="t3">Special Groups in Primary Care</ce:title>
    <ce:pages>
      <ce:first-page>9</ce:first-page>
      <ce:last-page>18</ce:last-page>
    </ce:pages>
  </ce:include-item>
  ...
</section>
```

Version history

Element introduction is a top-level element in EHS Books DTD 5.1.0. Since all top-level items are called into the book hub file with ce:include-item, subelement introduction was removed. Subelement ce:bibliography was replaced by ce:further-reading.

In Elsevier Book DTD 5.2.0 the optional attribute role was added.

In Elsevier Book DTD 5.2.1 subelement ce:label was made optional.

Known bugs, hacks and problems

The ce:further-reading is deprecated and should no longer be used. It remains to allow for backward compatibility with earlier versions.

simple-chapter

Declaration

Model (Book DTD 5.2.0)

```
<!ELEMENT  simple-chapter        ( ce:footnote*, info, ce:floats?,
                                   ce:label, ce:title, ce:subtitle?,
                                   ce:author-group*, ce:displayed-
                                   quote?, poem?, outline?, objectives?,
                                   ce:nomenclature?, ce:acknowledgment?,
                                   ce:intro?, ( ce:sections | subchapter
                                   | exam )*, ( ( ce:bibliography |
                                   ce:further-reading )+, ( ce:section |
                                   exam )* )? )>
<!ATTLIST  simple-chapter
           id                    ID                 #REQUIRED
           xmlns                 CDATA              #FIXED %ESBK.xmlns;
           version               CDATA              #FIXED '5.2'
           xmlns:ce              CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA              #FIXED %XLINK.xmlns;
           xml:lang              %language;         'en'
           role                  CDATA              #IMPLIED
           docsubtype            %docsubtype;       #FIXED "scp">
```

Model (Book DTD 5.2.1)

```
<!ELEMENT  simple-chapter        ( ce:footnote*, info, ce:floats?,
                                   ce:label?, ce:title, ce:subtitle?,
                                   ce:author-group*, ce:displayed-
                                   quote?, poem?, outline?, objectives?,
                                   ce:nomenclature?, ce:acknowledgment?,
                                   ce:intro?, ( ce:sections | subchapter
                                   | exam )*, ( ( ce:bibliography |
                                   ce:further-reading )+, ( ce:section |
                                   exam )* )? )>
<!ATTLIST  simple-chapter
           id                    ID                 #REQUIRED
           xmlns                 CDATA              #FIXED %ESBK.xmlns;
           version               CDATA              #FIXED '5.2'
           xmlns:ce              CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA              #FIXED %XLINK.xmlns;
           xml:lang              %language;         'en'
           role                  CDATA              #IMPLIED
           docsubtype            %docsubtype;       #FIXED "scp">
```

Model (Book DTD 5.3.0, Book DTD 5.3.1)

```
<!ELEMENT  simple-chapter        ( ce:footnote*, info, ce:floats?,
                                   ce:label?, ce:title, ce:subtitle?,
                                   ce:author-group*, ce:miscellaneous?,
                                   ce:abstract*, ce:displayed-quote?,
                                   poem?, outline?, objectives?,
                                   ce:nomenclature?, ce:acknowledgment?,
                                   ce:intro?, ( ce:sections | subchapter
                                   | exam )*, ( ( ( ce:bibliography |
                                   ce:further-reading )+ | ce:section |
                                   ce:biography ), ( ce:section | exam |
                                   ce:biography )* )? )>
```

```
<!ATTLIST  simple-chapter
           xmlns                CDATA             #FIXED %ES.xmlns;
           version              CDATA             #FIXED '5.3'
           xmlns:ce             CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA             #FIXED %XLINK.xmlns;
           xml:lang             %iso639;          'en'
           id                   ID                #REQUIRED
           role                 CDATA             #IMPLIED
           docsubtype           %docsubtype;      #FIXED "scp">
```

Model (Book DTD 5.4.0)

```
<!ELEMENT  simple-chapter       ( ce:footnote*, info, ce:floats?,
                                  ce:label?, %titles;, ce:author-group*,
                                  ce:miscellaneous*, ce:abstract*,
                                  ce:displayed-quote?, poem?, out-
                                  line*, objectives?, ce:nomenclature*,
                                  ce:acknowledgment?, ce:intro?,
                                  ( ce:sections | subchapter |
                                  exam )*, ( ( ( ce:bibliography |
                                  ce:further-reading )+ | ce:section |
                                  ce:biography ), ( ce:section | exam |
                                  ce:biography )* )? )>
<!ATTLIST  simple-chapter
           xmlns                CDATA             #FIXED %ES.xmlns;
           version              CDATA             #FIXED '5.4'
           xmlns:ce             CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA             #FIXED %XLINK.xmlns;
           xml:lang             %iso639;          'en'
           id                   ID                #REQUIRED
           role                 CDATA             #IMPLIED
           docsubtype           ( scp|ret|rem|dup )
                                                  "scp">
```

Model (Book DTD 5.5.0)

```
<!ELEMENT  simple-chapter       ( ce:footnote*, info, ce:floats?,
                                  ce:label?, %titles;, ce:author-group*,
                                  ce:miscellaneous*, ce:abstract*,
                                  ce:displayed-quote?, poem?, out-
                                  line*, objectives?, ce:nomenclature*,
                                  ce:acknowledgment*, ce:intro?,
                                  ( ce:sections | subchapter |
                                  exam )*, ( ( ( ce:bibliography |
                                  ce:further-reading )+ | ce:section |
                                  ce:biography ), ( ce:section | exam |
                                  ce:biography )* )? )>
<!ATTLIST  simple-chapter
           xmlns                CDATA             #FIXED %ES.xmlns;
           version              CDATA             #FIXED '5.5'
           xmlns:ce             CDATA             #FIXED %ESCE.xmlns;
           xmlns:xlink          CDATA             #FIXED %XLINK.xmlns;
           xml:lang             %iso639;          'en'
           id                   ID                #REQUIRED
           role                 CDATA             #IMPLIED
           docsubtype           ( scp|ret|rem|dup )
                                                  "scp">
```

Model (Book DTD 5.6.0)

```
<!ELEMENT  simple-chapter        ( ce:footnote*, info, ce:floats?,
                                   ce:label?, %titles;, ce:author-group*,
                                   ce:miscellaneous*, ce:abstract*,
                                   ce:data-availability?, ce:displayed-
                                   quote*, poem?, outline*, objectives?,
                                   ce:nomenclature*, ce:conflict-of-
                                   interest?, ce:acknowledgment*,
                                   ce:intro?, ( ce:sections | subchapter
                                   | exam )*, ( ( ( ce:bibliography |
                                   ce:further-reading )+ | ce:section |
                                   ce:biography ), ( ce:section | exam |
                                   ce:biography )* )? )>
<!ATTLIST  simple-chapter
           xmlns                 CDATA              #FIXED %ES.xmlns;
           version               CDATA              #FIXED '5.6'
           xmlns:ce              CDATA              #FIXED %ESCE.xmlns;
           xmlns:xlink           CDATA              #FIXED %XLINK.xmlns;
           xml:lang              %iso639;           'en'
           id                    ID                 #REQUIRED
           role                  CDATA              #IMPLIED
           docsubtype            ( scp|ret|rem|dup )
                                                    "scp">
```

Description

The element simple-chapter is used to capture book chapters as individual XML files, but only in a PreCAP backfile conversion project.

Usage

The simple-chapter element is used to capture all the material that appears within a book chapter. There is a PUBLIC identifier and a DOCTYPE declaration for simple-chapter, and individual chapter files get called into the book's hub file using the ce:include-item element.

Although the DTD does not restrict where lower-level book doctypes get called into the hub file, the intent is for simple-chapter only to be called into body, not in front or rear.

The content for simple-chapter consists of an optional/repeatable ce:footnote, a required info and the optional ce:floats container. The chapter begins with the (optional) ce:label, containing the name of the chapter ("Chapter 4"), the chapter title(s), tagged via ce:title, optional ce:subtitle and optional/repeatable ce:alt-title and ce:alt-subtitle, and optional and repeatable ce:author-group containing authors and their affiliations. Followed by optional/repeatable ce:miscellaneous, optional/repeatable ce:abstract and optional ce:data-availability. The optional subelements ce:displayed-quote, poem, outline, objectives, and ce:nomenclature also belong to the "head" of the chapter, followed by an optional ce:conflict-of-interest and ce:acknowledgment (repeatable). An introduction or summary is contained in the optional ce:intro.

The main body of the chapter consists of a optional/repeatable sequence of ce:sections, subchapter and/or exam elements, followed by optional/repeatable ce:bibliography

and/or ce:further-reading, possibly followed by more ce:sections and/or exams and/or ce:biographys.

It has an optional role, along with several required attributes:

- id
- xmlns: http://www.elsevier.com/xml/book/dtd
- version: 5.4
- xmlns:ce: http://www.elsevier.com/xml/common/dtd
- xmlns:xlink: http://www.w3.org/1999/xlink
- xml:lang: en (default value)
- docsubtype: scp (default value), ret, rem or dup

XML

```
<!DOCTYPE simple-chapter
  PUBLIC "-//ES//DTD book DTD version 5.6.0//EN//XML"
  "book560.dtd" []>
<simple-chapter id="ch1">
  <info>
    <ce:pii>B978-0-323-01679-7.10003-8</ce:pii>
    <ce:isbn>978-0-323-01679-7</ce:isbn>
    <ce:copyright type="full-transfer"
      year="2003">Mosby, Inc.</ce:copyright>
  </info>
  <ce:bibliography id="bibl1>
    ...
  </ce:bibliography>
</simple-chapter>
```

Version history

This top element was added in Elsevier Book DTD 5.2.0 to allow for deliveries of book backfile projects.

In Elsevier Book DTD 5.2.1 subelement ce:label was made optional.

In Elsevier Book DTD 5.3.0 added optional ce:miscellaneous, and optional/repeatable ce:abstract and optional/repeatable ce:biographys.

In Elsevier Book DTD 5.4.0 the optional/repeateable elements ce:alt-title and ce:alt-subtitle were added to the model of simple-chapter. Three more possible values were added for attribute docsubtype. Also, the occurrence indicator for elements ce:miscellaneous, outline and ce:nomenclature was changed from ? to *.

In Elsevier Book DTD 5.5.0 the occurrence indicator for ce:acknowledgment changed from ? to *.

In Elsevier Book DTD 5.6.0 the elements ce:conflict-of-interest and ce:data-availability were added and the occurrence indicator for ce:displayed-quote was changed from ? to *.

stanza

Declaration

Model (Book DTD 5.1.1–Book DTD 5.6.0)

```
<!ELEMENT  stanza                ( line+ )>
```

Description

The element stanza is used to capture a block of lines from a poem.

Usage

Content for stanza consists of required/repeatable line.

XML

```
<stanza>
  <line>Roses are red</line>
  <line>violets are blue</line>
  ...
</stanza>
```

Version history

This element first appeared in EHS Books DTD 5.1.1.

See also

See also elements poem and line.

subchapter

Declaration

Model (Book DTD 5.1.0)

```
<!ELEMENT  subchapter          ( ce:label?, ce:title, ce:author-group*,
                                 ce:displayed-quote?, ce:nomenclature?,
                                 ce:intro?, ( ce:section | subchapter
                                 | exam )+, ( ce:bibliography |
                                 ce:further-reading )+, ( ce:section |
                                 exam )* )>
<!ATTLIST  subchapter
           id                  ID              #REQUIRED>
```

Model (Book DTD 5.1.1)

```
<!ELEMENT  subchapter          ( ce:label?, ce:title, ce:author-group*,
                                 ce:displayed-quote?, ce:nomenclature?,
                                 ce:intro?, ( ce:sections | subchapter
                                 | exam )+, ( ce:bibliography |
                                 ce:further-reading )+, ( ce:section |
                                 exam )* )>
<!ATTLIST  subchapter
           id                  ID              #REQUIRED>
```

Model (Book DTD 5.2.0, Book DTD 5.2.1)

```
<!ELEMENT  subchapter          ( ce:footnote*, ce:label?, ce:title,
                                 ce:author-group*, ce:displayed-quote?,
                                 ce:nomenclature?, ce:acknowledgment?,
                                 ce:intro?, ( ce:sections | subchapter
                                 | exam )+, ( ce:bibliography |
                                 ce:further-reading )+, ( ce:section |
                                 exam )* )>
<!ATTLIST  subchapter
           id                  ID              #REQUIRED
           role                CDATA           #IMPLIED>
```

Model (Book DTD 5.3.0, Book DTD 5.3.1)

```
<!ELEMENT  subchapter          ( ce:footnote*, ce:label?, ce:title,
                                 ce:author-group*, ce:displayed-quote?,
                                 ce:nomenclature?, ce:acknowledgment?,
                                 ce:intro?, ( ce:sections | subchapter
                                 | exam )+, ( ( ( ce:bibliography |
                                 ce:further-reading )+ | ce:section ),
                                 ( ce:section | exam )* )? )>
<!ATTLIST  subchapter
           id                  ID              #REQUIRED
           role                CDATA           #IMPLIED>
```

Model (Book DTD 5.4.0)

```
<!ELEMENT  subchapter          ( ce:footnote*, ce:label?, ce:title,
                                 ce:author-group*, ce:displayed-quote?,
                                 ce:nomenclature*, ce:acknowledgment?,
                                 ce:intro?, ( ce:sections | subchapter
                                 | exam )+, ( ( ( ce:bibliography |
                                 ce:further-reading )+ | ce:section ),
                                 ( ce:section | exam )* )? )>
<!ATTLIST  subchapter
```

```
          id                  ID              #REQUIRED
          role                CDATA           #IMPLIED>
```

Model (Book DTD 5.5.0)

```
<!ELEMENT  subchapter         ( ce:footnote*, ce:label?, ce:title,
                                ce:author-group*, ce:displayed-quote?,
                                ce:nomenclature*, ce:acknowledgment*,
                                ce:intro?, ( ce:sections | subchapter
                                | exam )+, ( ( ( ce:bibliography |
                                ce:further-reading )+ | ce:section ),
                                ( ce:section | exam )* )? )>
<!ATTLIST  subchapter
          id                  ID              #REQUIRED
          role                CDATA           #IMPLIED>
```

Model (Book DTD 5.6.0)

```
<!ELEMENT  subchapter         ( ce:footnote*, ce:label?, ce:title,
                                ce:author-group*, ce:displayed-quote*,
                                ce:nomenclature*, ce:conflict-of-
                                interest?, ce:acknowledgment*,
                                ce:intro?, ( ce:sections | subchapter
                                | exam )+, ( ( ( ce:bibliography |
                                ce:further-reading )+ | ce:section ),
                                ( ce:section | exam )* )? )>
<!ATTLIST  subchapter
          id                  ID              #REQUIRED
          role                CDATA           #IMPLIED
          view                %view;          'all'>
```

Description

The element `subchapter` is used to capture large portions of hierarchy that occur within book chapters.

Usage

Quite frequently, book chapters are so large, that the subchapter element is needed to capture the complex hierarchy that occurs within them. Such divisions of chapters are often written by separate authors and will often contain their own references. For this DTD, the hierarchy below chapter that has its own author(s) and/or references should be tagged as a `subchapter`. Hierarchy below chapter which does not have its own author(s) or references should be done as `ce:section`s.

Content for the `subchapter` element is similar to the structure of its parent, `chapter`, and consists of an optional/repeatable `ce:footnote`, an optional `ce:label`, a required `ce:title`, optional and repeatable `ce:author-group`. Followed by optional `ce:displayed-quote`, optional/repeatable `ce:nomenclature`, followed by an optional `ce:conflict-of-interest` and `ce:acknowledgment` (repeatable), optional introductory text in `ce:intro`, followed by required/repeatable `ce:sections`s and/or nested `subchapter`s and/or `exam`s, followed by optional/repeatable `ce:bibliography` and/or `ce:further-reading`, followed by optional/repeatable `ce:section`s and/or `exam`s.

It has one required attribute, `id` and optional `role` and `view` (with a default value `all`).

XML

```
<subchapter id="sc11">
  <ce:label>1.1</ce:label>
  <ce:title id="t1">Summary of Primary Care Today</ce:title>
  <ce:author-group id="aug1">
    ...
  </ce:author-group>
  <ce:intro id="intro1">
    <ce:para id="p01">Text of introductory paragraph...</ce:para>
  </ce:intro>
  <ce:section id="s1">
    <ce:title id="t1">Opening section title</ce:title>
    <ce:para id="p02">Text of first paragraph...</ce:para>
    <ce:para id="p03">Text of second paragraph...</ce:para>
  </ce:section>
  <ce:bibliography id="bbl1">
    ...
  </ce:bibliography>
</subchapter>
```

Version history

In EHS Books DTD 5.1.1 the occurrence indicator for `ce:author-group` changed from ? to *. Element `examination` was replaced by `exam` and the `docsubtype` attribute was added. Element `ce:section` was changed to `ce:sections` to allow subchapters to begin with regular paragraphs.

In Elsevier Book DTD 5.2.0, an optional/repeatable `ce:footnote` was added to the beginning of the content model for `subchapter`. The optional attribute `role` was also added.

In Elsevier Book DTD 5.3.0 reference end-notes were made optional.

In Elsevier Book DTD 5.4.0 the occurrence indicator for element `ce:nomenclature` was changed from ? to *.

In Elsevier Book DTD 5.5.0 the occurrence indicator for `ce:acknowledgment` changed from ? to *.

In Elsevier Book DTD 5.6.0 attribute `view` and the element `ce:conflict-of-interest` were added and the occurrence indicator for `ce:displayed-quote` was changed from ? to *.

top

Declaration

Model (Book DTD 5.1.0)

```
<!ELEMENT  top                  ( %titles;, ce:edition, ce:copyright-
                                  line, ce:editors?, ce:author-group*,
                                  ce:dedication?, ce:sections )>
```

Model (Book DTD 5.1.1)

```
<!ELEMENT  top                  ( %titles;, ce:edition, ce:copyright-
                                  line, ce:editors?, ce:author-group*,
                                  ce:dedication*, ce:sections )>
```

Model (Book DTD 5.2.0)

```
<!ELEMENT  top                  ( %titles;, ce:edition, ce:copyright-
                                  line, cover-image?, ce:editors*,
                                  ce:author-group*, dedication*,
                                  ce:sections )>
```

Model (Book DTD 5.2.1–Book DTD 5.6.0)

```
<!ELEMENT  top                  ( %titles;, ce:edition?, ce:copyright-
                                  line, cover-image?, ce:editors*,
                                  ce:author-group*, dedication*,
                                  ce:sections )>
```

Description

The element top is another placeholder element for book-level metadata elements.

Usage

The info element contains book-project level metadata for the book item. It also contains material intended to render the following non-item material: title page, copyright page, and dedication (if present).

Content for the top element consists of required ce:title, optional ce:subtitle, optional/repeatable combination of required ce:alt-title, optional ce:alt-subtitle, followed by optional ce:edition, required ce:copyright-line, optional cover-image, optional ce:editors, optional/repeatable ce:author-group, optional/repeatable dedication, and required ce:sections.

XML

```
<top>
  <ce:title id="t1">Mosby's Clinical Nursing</ce:title>
  <ce:edition>5th Edition</ce:edition>
  <ce:editors>
    <ce:author-group id="aug1">...</ce:author-group>
    <ce:author-group id="aug2">...</ce:author-group>
  </ce:editors>
  <ce:copyright-line>Copyright &copy; 2002
    Mosby, Inc.</ce:copyright-line>
  <cover-image>...</cover-image>
  <ce:sections>
```

```
      <ce:para id="p01">Previous editions copyrighted ...</ce:para>
      <ce:para id="p02">All rights reserved. No part of this publication
         may be reproduced...</ce:para>
    </ce:sections>
  </top>
```

Version history

In EHS Books DTD 5.1.1 the occurrence indicator for `ce:dedication` changed from `?` to `*`.

In the Elsevier Book DTD 5.2.0 the optional `cover-image` was added while `ce:dedication` was replaced by `dedication` to properly allow for book dedications that tend to be more elaborate than articles.

In the Elsevier Book DTD 5.2.1 the element `ce:edition` was made optional.

Due to changes over time, the `top` has become largely empty. Author dedications and the copyright page are now both now delivered as items within `front`. Refer to the CAP guides for specific detailed guidance.

volume

Declaration

Model (Book DTD 5.1.0, Book DTD 5.1.1)

```
<!ELEMENT  volume              ( ce:label, ( part | section |
                                 ce:include-item )+ )>
<!ATTLIST  volume
           id                  ID              #REQUIRED>
```

Model (Book DTD 5.2.0)

```
<!ELEMENT  volume              ( ce:label, ce:title?, ce:author-group*,
                                 ( part | section | ce:include-
                                 item )+ )>
<!ATTLIST  volume
           id                  ID              #REQUIRED
           role                CDATA           #IMPLIED>
```

Model (Book DTD 5.2.1–Book DTD 5.5.0)

```
<!ELEMENT  volume              ( ce:label?, ce:title?, ce:author-
                                 group*, ( part | section | ce:include-
                                 item )+ )>
<!ATTLIST  volume
           id                  ID              #REQUIRED
           role                CDATA           #IMPLIED>
```

Model (Book DTD 5.6.0)

```
<!ELEMENT  volume              ( ce:label?, ce:title?, ce:author-
                                 group*, ce:intro?, ( part | section |
                                 ce:include-item )+ )>
<!ATTLIST  volume
           id                  ID              #REQUIRED
           role                CDATA           #IMPLIED>
```

Description

Unlike journals, where a volume is a collection of journal issues, volumes in Elsevier books are usually only due to limitations of binding. In rare cases, they can also be used to delimit topical hierarchy as well. The element volume is used to capture material that appears between separately bound volumes of a multi-volume book if they occur within Elsevier books.

Usage

The volume element, a child of body, is used to delimit and capture the material that appears between each separately bound volume if/when they occur. It should be noted that only the ce:include-items and hierarchy above them (material within body) appears within volume. This differs from many hardcopy multi-volume books where front and back matter gets repeated in each separately bound volume.

The volume element consists of an optional ce:label (often a Roman numeral), an optional ce:title, an optional/repeatable ce:author-group, followed by required/repeatable parts and/or sections and/or ce:include-items.

It has one required attribute, id and one optional attribute, role.

XML

```
<volume id="vI">
  <ce:label>Volume I</ce:label>
  <part id="pA"><ce:label>Part A</ce:label>
    <ce:title id="t1">General issues and approach to disease
      in primary care medicine</title>
    <ce:include-item>
     <ce:pii>B0-323-01679-0/10027-7</ce:pii>
     <ce:title id="t1a">Introduction</ce:title>
     <ce:pages>
        <ce:first-page>1</ce:first-page>
        <ce:last-page>8</ce:last-page>
     </ce:pages>
     </ce:include-item>
     <section id="s1"><ce:label>Section 1</ce:label>
       <ce:title id="t2">Core Issues and Special Groups
         in Primary Care</ce:title>
         <ce:include-item>
           <ce:pii>B0-323-01679-0/10003-4</ce:pii>
           <ce:title id="t3">Core Issues in Primary Care</ce:title>
           <ce:pages>
             <ce:first-page>9</ce:first-page>
             <ce:last-page>18</ce:last-page>
   </ce:pages>
         </ce:include-item>
         ...
    </section>
    ...
  </part>
  <part id="pB">
    <ce:label>Part B</ce:label>
    <ce:title id="t4">Title of Second Part</title>
    ...
  </part>
</volume>
```

Version history

In Elsevier Book DTD 5.2.0 optional `ce:title`, optional/repeatable `ce:author-group`, and optional attribute `role` were added.

In Elsevier Book DTD 5.2.1 subelement `ce:label` was made optional.

In the Elsevier Book DTD 5.3.0 `part` was allowed to recurse (`part`, child of `part`) to be able to properly handle MRWs.

PITs: Book publication item types

The attribute `docsubtype` of the top-level elements of the book DTD contains the publication item type of the book chapter or book hub. Its possible values are contained in `%docsubtype;` and `%docsubtype-book;` and are described here.

PIT	Short	Description
`ack`	Acknowledgments	Acknowledgments, in the front matter of a book.
`app`	Appendix	An appendix pertaining to the book as a whole (as opposed to one to a single chapter) found in the rear matter of a book.
`bib`	Bibliography	The list of references that pertain to the book as a whole (as opposed to references that may be part of an individual chapter) and that will be found in a separate section, usually in the rear matter of the book.
`bio`	Biography	Biographies, in the front matter of a book.
`bk`	Elsevier book	The PIT required for the top element that captures the basic structure of the book.
`chp`	Chapter	Individual chapter.
`com`	Comprehensive	One of the two principal types of Elsevier major reference works.
`con`	Contents list	The table of contents of a book.
`cop`	Copyright	The copyright page as an item.
`ctr`	Contributors	List of contributors in the front matter of a book.
`dct`	Dictionary	Added for future expansion.
`ded`	Dedication	Part of a book's frontmatter thanking persons not directly involved with the research described in the book for their contribution.
`dup`	Duplicate	Tombstone chapter, duplicate of a published chapter. See ref. [25].
`edb`	Editorial board	List containing the scientific editors, the managing and executive editors, the board of directors, etc., of the publication.
`enc`	Encyclopedia	One of the two principal types of Elsevier major reference works.
`eoc`	Expression of Concern	An Expression of Concern sits somewhere between an Erratum and a Retraction and allows authors or editors to point out a minor form of scientific misconduct such as failure to fully report a conflict of interest.
`exm`	Examination	List of review questions and answers in case these are found as a separate section, outside a chapter.
`for`	Foreword	Introductory text in the front matter of a book.
`gls`	Glossary	List in which specific terminology used in the book is explained. Only used in cases where this is found as a separate section, outside a chapter, in rear matter only.
`htu`	How to use	Part of the front matter of a book that may be used to capture a disclaimer text.

PIT	Short	Description
idx	Index	This PIT will be deprecated in favour of the new PIT ind.
ind	Index	List of index terms found in the book's rear matter, possibly cross-referenced against the location of occurrence. It can be an Author index, a Master index, a Subject index, a Materials index, etc. This replaces the PIT idx which will be deprecated.
ins	Insights	A publication item that is neither research article nor review of primary research; it is roughly comparable to an article in the popular science press.
itr	Introduction	Text introducing a volume, part or section of a book. Not to be confused with Foreword (FOR) or Preface (PRE) that are part of the front matter.
lit	Literature reviews	Used for a chapter that reviews the literature in a given subject area.
lst	Lists	List of figures, list of tables, etc.
ovw	Overview	Used for so-called "topic pages" in an MRW, a short description of the subject of the MRW section.
pre	Preface	Introductory text in the front matter of a book.
pro	Protocol	A publication item that provides the detailed procedures and materials needed to reproduce or replicate an experimental method. In essence, a Protocol is a regular item focussing on the materials and methods required to achieve a specified result.
rem	Removal	Tombstone chapter, removed. The chapter has been retracted and its original text is completely removed from public access. See ref. [26].
ret	Retraction	Tombstone PIT assigned to a retracted item.
rev	Reviewers	List of names of referees that have reviewed (parts of) the book.
rpl	Replication Studies	Replication Study. A replication of a scientific study.
scp	Simple chapter	An individual chapter. Used primarily in conversion projects.
tpg	Title page	Used for the title page.
vid	Video article	Publication item whose prime content consists of a video accompanied by a description of that video.

Chapter 6
Enhancement Fragment DTD

This chapter contains an alphabetic listing of the elements in the enhancement fragment DTD, the EF DTD. This DTD is used to structure the content of material that is added to the online versions of journal items or book chapters after they have been published.

The EF DTD will be used to add "book updates" to online book chapters. These were formerly known as "darts". So-called eAbstracts will also be captured by this DTD. eAbstracts are complete articles that are derived from articles in Clinics journals. Many more uses are foreseen.

The EF DTD defines one top-level element: `enhancement-fragment`.

CEP version used in this DTD

The enhancement fragment DTD 5.0.0 described in this documentation uses the common element pool version 1.1.6.

enhancement-fragment

Declaration

Model (EF DTD 5.0)

```
<!ELEMENT  enhancement-fragment  ( info, target, ce:floats?, fragment-
                                   text )>
<!ATTLIST  enhancement-fragment
           xmlns                 CDATA             #FIXED %ESEF.xmlns;
           version               CDATA             #FIXED '5.0'
           xmlns:ce              CDATA             #FIXED %ESCE.xmlns;
           xmlns:sb              CDATA             #FIXED %ESSB.xmlns;
           xmlns:xlink           CDATA             #FIXED %XLINK.xmlns;
           xml:lang              %iso639;          'en'
           docsubtype            CDATA             #REQUIRED>
```

Description

The element `enhancement-fragment` contains the complete enhancement fragment.

Usage

The element `enhancement-fragment` is the only top-element in the EF DTD. It is used to structure enhancement fragments.

There are several attributes of the element, as follows.

- The attribute `docsubtype` contains the type of the fragment. Unlike other DTDs, the EF DTD does not contain the list of possible values. For every type of enhancement fragment different values are defined. For book updates the following values are allowed:
  - `abs`: abstract
  - `com`: commentary
  - `crct`: corrections made by the enhancement fragment (not errata)
  - `fcr`: focused review
  - `hop`: hot off the press
  - `lbct`: late breaking clinical trial
  - `note`: notification of corrections
  - `ref`: additional references
  - `upd`: update

  For eAbstracts only one value is allowed:
  - `eabs`: eAbstract

  For Layman's abstracts only one value is allowed:
  - `lay`: Layman's abstract
- The attribute `xml:lang` specifies the language in which the enhancement fragment is written (default English, `en`). See ISO 639 set of entities (p. 192) for an overview of the allowed language codes.
- The fixed attribute `xmlns` sets the default namespace for EF elements, and the other fixed attributes beginning with `xmlns:` set the prefix and the namespace of elements used in the DTD, e.g. those of the common element pool (`xmlns:ce` and `xmlns:sb`) and of the XLink standard (`xmlns:xlink`). Since these attributes are fixed, they need not be specified as they are inferred by the parser.

- `version` is fixed to the first two digits of the version of the DTD.

Information on the enhancement fragment is stored in element `info`. The target is identified in element `target`. Element `fragment-text` contains the content of the enhancement fragment. The optional `ce:floats` contains the necessary floats, similar to the JA DTD.

exam

Declaration

Model (EF DTD 5.0)

```
<!ELEMENT  exam                ( ce:title?, ce:exam-questions,
                                 ce:exam-answers? )>
<!ATTLIST  exam
           id                  ID              #REQUIRED
           role                CDATA           #IMPLIED>
```

Description

The element exam is used to capture review questions that appear within many different types of books.

Usage

This element is structured identical to the exam element in the Book DTD. It is used in the same way.

fragment-text

Declaration

Model (EF DTD 5.0)

```
<!ELEMENT  fragment-text          ( ce:footnote*, ce:label?, %titles;,
                                    ce:author-group*, ce:displayed-quote?,
                                    ce:date-received?, ce:date-revised*,
                                    ce:date-accepted?, ce:miscellaneous?,
                                    ce:abstract*, ce:keywords*,
                                    ce:nomenclature?, ce:acknowledgment?,
                                    ce:sections, ( ce:bibliography |
                                    ce:further-reading )*, ( ce:section |
                                    exam )* )>
<!ATTLIST  fragment-text
           id                     ID                #REQUIRED
           role                   CDATA             #IMPLIED>
```

Description

The element fragment-text contains the content of the enhancement fragment.

Usage

The model of this element is based on the models of element head of the JA DTD and element subchapter of the Book DTD.

fragment-text has a mandatory id and an optional role.

info

Declaration

Model (EF DTD 5.0)

```
<!ELEMENT  info                ( ce:pii, ce:copyright, ce:imprint?,
                                 ce:doctopics? )>
```

Description

The element `info` contains information about the enhancement fragment.

Usage

The enhancement fragment is identified by a PII, `ce:pii`. The PII of an enhancement fragment is based on the PII of the target but the format depends on the type of enhancement fragment.

The PII of a book update enhancement fragment is made up of the PII of the target, a type identifier (`bu`), the ID of an XML fragment in the target, and a sequence number. It does not have a check digit. The parts are separated by a period, except for the last two which are separated by a "u". This is done to ensure uniqueness of *unformatted* PIIs.

The PII of an eAbstract enhancement fragment is made up of the PII of the target and the type identifier (`ea`). The parts are joined by a hyphen. It does not have a check digit. The PII of a Layman's abstract is constructed similarly, the type identifier is `lay`.

The mandatory `ce:copyright` contains the copyright owner and status of the item.

The imprint under which a book project is published can be stored in the optional element `ce:imprint` while the optional element `ce:doctopics` can be used to associate the enhancement fragment with one or more topic hierarchies.

XML

```
<info>
  <ce:pii>B978-1-4160-3675-3.50009-5.bu.cesec37u1</ce:pii>
  <ce:copyright type="full-transfer" year="2011">Elsevier,
    Inc.</ce:copyright>
</info>
```

location

Declaration

Model (EF DTD 5.0)

```
<!ELEMENT  location             EMPTY>
<!ATTLIST  location
           id                   ID                 #IMPLIED
           refid                CDATA              #IMPLIED
           placement            CDATA              #IMPLIED
           sequence             NMTOKEN            #IMPLIED>
```

Description

The element `location` contains the exact location for an enhancement fragment in a journal article or book chapter.

Usage

`location` has four optional attributes. It can be identified by the attribute `id`.

An enhancement fragment can be "attached" to a specific place in a journal article or book chapter. The exact place is in fact an XML fragment (element) and its ID is stored in attribute `refid`. Attribute `placement` indicates where the enhancement fragment is to be placed. The values used so far are `before` and `after`.

Attribute `sequence` contains a sequence number, in case there are more than one enhancement fragment for that specific place and position. The number must be unique amongst all `sequence` numbers of enhancement fragments for a specific place and position.

See `target` for an example location.

target

Declaration

Model (EF DTD 5.0)

```
<!ELEMENT  target              ( ce:pii, location? )>
<!ATTLIST  target
           id                  ID              #REQUIRED
           role                CDATA           #IMPLIED>
```

Description

The element target contains information about the target of the enhancement fragment.

Usage

The target element is identified by the mandatory attribute id.

An enhancement fragment is "attached" to a journal article or a book chapter which is identified by its PII in ce:pii. The element location can be used to attach the enhancement fragment to a specific place in the article or chapter.

An enhancement fragment is considered to be attached to the whole article or chapter if the location is not present or if it is present without its refid and placement attributes.

XML

```
<target id="target.0050">
    <ce:pii>B978-1-4160-3675-3.50009-5</ce:pii>
    <location id="loc1" refid="cesec83"
        placement="after" sequence="1"/>
</target>
```

Chapter 7

The Common Element Pool

The common element pool (CEP), a phrase coined by Jabin White, contains elements that are common to all or some of the Elsevier DTDs. The common elements are subdivided in six namespaces:

- the "core" common element pool, whose elements are described in Chapter 8,
- the elements for structured affiliations, described in Chapter 9,
- the elements for structured bibliographic references, described in Chapter 10,
- the MathML elements, with Elsevier modifications, described in Chapter 11,
- the CALS table elements and the Extended CALS table elements, both described in Chapter 12.

This chapter (Chapter 7) contains general notions regarding the common element pool and the XML files that are structured according to the DTDs that use it. When individual elements are mentioned, their details can be found in the above-mentioned chapters.

Observe that the common element pool is used by several DTDs and contains elements shared by several of these DTDs, but not necessarily all. For instance, the JA DTD does not contain elements such as `ce:isbn`, `ce:index`, `ce:index-flag` or `ce:intra-ref`. In some cases this is accomplished by parametrization using parameter entities.

Versions of the common element pool

This section describes the changes in the common element pool (CEP) since its first release as version 1.0.0. It also lists which DTDs make use of that particular version of the common element pool.

CEP 1.1.0

- The following elements were added: ce:isbn, ce:issn, ce:include-item, ce:pages, ce:first-page, ce:last-page, ce:copyright-line, ce:index-flag, ce:index-flag-term, ce:index-flag-see, ce:index-flag-see-also.
- The following parameter entities were added: %common-altimg.att;, %common-view.att;, %tbl.tgroup.att;.
- Parameter entity %titles; was renamed to %sb.titles; and a new parameter entity %titles; was introduced.
- Element ce:article-thread was replaced by ce:document-thread and element ce:refers-to-article was replaced by ce:refers-to-document.
- Element sb:comment's model was changed to allow for more content.
- Elements ce:glossary and ce:index now contain ce:intro in their models.
- Element ce:textbox-tail now contains ce:glossary and ce:biography in its model.
- Element ce:author now has an attribute author-id.
- Attribute xml:lang of ce:abstract now takes its values in %iso639;.
- The following elements now have an attribute view: ce:appendices, ce:bibliography, ce:further-reading, ce:glossary, ce:index, ce:biography, ce:exam-reference, ce:exam-questions, ce:exam-answers.
- The following elements now use %sb.titles; instead of %titles;: sb:contribution, sb:series, sb:book, sb:edited-book.

CEP 1.1.0 patch level 1

The journal article (JA) DTD 5.0.1 makes use of this version of the CEP.

- The model of element ce:e-component was repaired to allow for multiple nested ce:link and ce:e-component subelements instead of just one.

CEP 1.1.0.1

The journal article (JA) DTD 5.0.2 makes use of this version of the CEP.

- New parameter entity %common-reqaltimg.att; was added.
- New elements ce:markers and ce:marker were added.

CEP 1.1.1

- Element ce:imprint was added.
- The notation declarations were extended with system identifiers.
- Value it was added to parameter entity %language;.
- The titles in element ce:include-item were made optional.

CEP 1.1.2

The EHS Books DTD 5.1.0 makes use of this version of the CEP.

- The following elements were added: ce:edition, ce:editors, ce:br.
- The following parameter entities were added: %copyright;, %external-file.att;, %tbl.colspec.att;, %tbl.row.att;.
- Parameter entity %size-info.att; was removed.
- Element ce:br was added to parameter entity %cell.data;.
- The following elements now have parameter entity %cross-ref; instead of element ce:cross-ref in their model: ce:collaboration, ce:author.
- The following elements now have parameter entity %copyright; instead of element ce:copyright in their model: ce:figure, ce:textbox, ce:e-component.
- The attribute list of ce:link was changed; it now consists of attributes id and locator.
- Element ce:caption now has an attribute list with attributes role and xml:lang.
- The models of elements ce:e-component, ce:alt-e-component, ce:figure and ce:textbox were changed to allow for more than one ce:caption.
- The model of parameter entity %tbl.titles; was changed to allow for more than one ce:caption; it now also contains parameter entity %copyright;.

CEP 1.1.3

The serial issue DTD 5.1.0, the EHS Books DTD 5.1.1 and the Elsevier Book DTDs 5.2.0 and 5.2.1 make use of this version of the CEP.

- The following elements were added: ce:source, ce:reader-see.
- Parameter entity %see; was introduced.
- Element ce:index-entry now uses element ce:reader-see, and parameter entity %see; instead of element ce:see.
- Element ce:source was added to the models of elements ce:figure, ce:textbox, ce:e-component, and to the model of parameter entity %tbl.titles;.

CEP 1.1.4

This CEP was intended to be used by the major reference works (MRW) DTD 5.0.0.

- New parameter entities %glossary-entry-refs; and %index-entry-refs; were added.
- Element ce:indexed-name was added to the models of elements ce:glossary-entry and ce:index-entry.
- Element ce:reader-see was added to the model of element ce:glossary-entry.
- New parameter entity %common-reqaltimg.att; was added.
- New elements ce:markers and ce:marker were added.

CEP 1.1.5

The journal article (JA) DTD 5.1.0 makes use of this version of the CEP.

- New parameter entity %text-objects; was added to the model of parameter entity %note.data;.
- Parameter entity %language; was removed and replaced by parameter entity %iso639; in the models of elements ce:ce:alt-title, ce:alt-subtitle and ce:keyword.
- Attribute role was added to the model of element ce:e-component.
- New elements ce:grant-sponsor and ce:grant-number were added.

CEP 1.1.6

The Elsevier Book DTDs 5.3.0 and 5.3.1 and the Enhancement Fragment (EF) DTD 5.0.0 make use of this version of the CEP.

- Attributes `id`, `role` and `view` were added to the model of numerous elements.
- Element `ce:section-title` was made optional in the models of elements `ce:further-reading`, `ce:glossary` and `ce:index`.
- Element `ce:text` was added to the model of element `ce:author-group`.

CEP 1.2.0

The journal article (JA) DTD 5.2.0 and the serial issue (SI) DTD 5.2.0 make use of this version of the CEP.

- Element `ce:copyright-line` was added to parameter entity `%copyright;`.
- New element `ce:alt-name` was added to parameter entity `%name;`.
- Values `sda`, `author-highlights` and `editor-highlights` were added to parameter entity `%abstract-class;`.
- Value `free-of-copyright` was added to parameter entity `%copyright-type;`.
- Attribute `id` was added to the model of numerous elements.
- Attribute `role` was added to the model of `ce:author-group` and `ce:abstract-sec`.
- Attribute `orcid` was added to the model of elements `ce:author`, `sb:author` and `sb:editor`.
- A new namespace for structured affiliation elements was added. Element `sa:affiliation` was added to the model of `ce:affiliation`.
- Elements `ce:e-address` and `ce:author-group` were added to the model of element `ce:collaboration`.
- Element `ce:source` was added to the model of element `ce:displayed-quote`.
- Element `ce:keywords` was added to the model of elements `ce:figure`, `ce:table`, `ce:textbox` and `ce:e-component`.
- The model of `sb:host` was changed to allow `sb:book` to be followed by `sb:pages`.
- The model of `sb:series` was changed to allow series without titles.
- Attribute `class` was added to the model of element `sb:book`.

CEP 1.4.0

The journal article (JA) DTD 5.4.0, the Elsevier Book DTD 5.4.0 and the serial issue (SI) DTD 5.4.0 make use of this version of the CEP.

- New element `ce:alt-text` was added. It was added to the models of elements `ce:figure`, `ce:table`, `ce:e-component`, `ce:textbox` and `ce:inline-figure`.
- New element `ce:article-number` was added.
- Element `ce:inter-ref` was added to the model of element `ce:keyword`.
- Three XLink attributes were added to the model of element `ce:link`.
- New element `sb:article-number` was added to the model of element `sb:host`.
- New element `sb:ellipsis` was added to the model of element `sb:authors`.
- Element `sa:affiliation` was added to the model of element `ce:correspondence`.

CEP 1.5.0

The journal article (JA) DTD 5.5.0, the Elsevier Book DTD 5.5.0 and the serial issue (SI) DTD 5.5.0 make use of this version of the CEP.

- New elements ce:math, ce:associated-resource, ce:contributor-role, sb:version and sb:date-accessed were added.
- New parameter entity %math; was added and used in parameter entity %text.data;.
- Value social-media was added to parameter entity %e-address-type;.
- Element ce:contributor-role was added to the model of element ce:author.
- The model of element ce:acknowledgment was changed to allow for the use of sections.
- Element ce:intro was added to the model of elements ce:bibliography and ce:further-reading.
- The model of element ce:glossary-def was changed to allow for more text objects to be used.
- The model of element ce:def-term was changed to allow for the use of cross references.
- Attribute role was added to the model of element ce:section-title.
- Attribute affiliation-id was added to the model of element ce:affiliation and attribute collaboration-id was added to the model of element ce:collaboration.
- Attribute xlink:href was added to the model of element ce:e-address.
- Attributes versionurl and versiondate were added to the model of elements ce:inter-ref and ce:inter-ref-end.
- Elements sb:publisher, sb:version and sb:date-accessed were added to the model of element sb:e-host.

CEP 1.6.0

The journal article (JA) DTD 5.6.0, the Elsevier Book DTD 5.6.0 and the serial issue (SI) DTD 5.6.0 make use of this version of the CEP.

- In this version of the CEP the MathML2 DTD was replaced by the MathML3 DTD. A modified version is used, mathml3-mod-ES.dtd, with the same modifications as in the previous version. Furthermore, the MathML3 parameter entites %MMLIDTYPE; and %MMLIDREFTYPE; were defined to be "ID" and "IDREF", respectively.
  The MathML3 DTD includes one file with entities, htmlmathml-f.ent. This includes the entities previously defined in ESextra.ent, which therefore is no longer included.
- New elements ce:short-title, ce:alias, ce:source-text, ce:conflict-of-interest and ce:data-availability were addded.
- The model of element ce:bibliography-sec was changed to allow more than one element ce:bib-reference.
- Attribute role was added to the model of elements ce:marker and ce:date-accepted.
- Element ce:alias was added to the model of element ce:author.
- Element ce:source-text was added to the model of elements ce:affiliation and ce:bib-reference.
- Element ce:article-number was added to the model of element ce:include-item.
- Element ce:legend was added to the model of element ce:textbox.
- Element sb:ellipsis was added to the model of element sb:editors.

Cross-references and the ce:label element

Cross-referencing with the one-to-many ce:cross-refs is complicated. The content of that element is popularly thought of as the text to click on — but there is only one text to click on while there are multiple destinations. An online rendering of the document will want to present the user with a list of possible destinations. In this section, we assume that that list is in the form of a drop-down menu with destinations; in practice applications have often chosen to present the destinations inline. (For more details about that, see ce:cross-refs.)

The element ce:cross-refs must have more than one destination. The element ce:cross-ref is used for a simple link. Each destination is a valid id in the document. Elements may have ids whether or not they are being referred to.

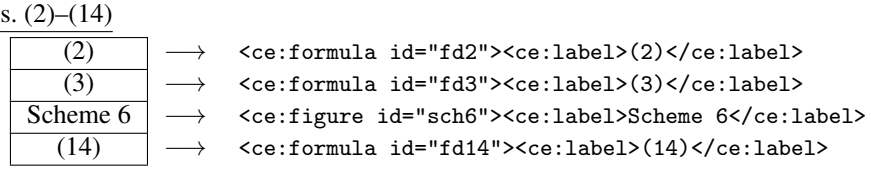
The structure of the document must guarantee that such a drop-down list of destinations can be created. A crucial role is played by the ce:label elements of the destinations, because their content is used to fabricate the drop-down list. (In fact, this is a simplification, because not all elements possess a ce:label, but it is a concept worth remembering; more precise details are found below.)

The elements ce:intra-refs and ce:inter-refs are different. These elements conform to the XLink standard, and contain the names of the destinations in their subelements ce:intra-ref-title and ce:inter-ref-title. In the *Output DTD* each ce:cross-ref can be converted to ce:intra-ref.

In order to make one-to-many links work it is wrong, and even impossible, to analyze the *content* of the ce:cross-refs. The application should rely on the XML structure. To this end, there is a collection of *rules* which are described in this section. Roughly, the rules subscribe to the "drop-down menu principle", which states that the destinations of the one-to-many link are the ce:label elements of the destination objects.

As an example, consider a document containing displayed equations Eqs. (2)–(14). The equations (4)–(13) are supplied on a graphic and they are shown in Scheme 6 (i.e., not captured in XML); the other equations are captured in XML. The following figure illustrates what happens if reference is made in the text to "Eqs. (2)–(14)".

```
see <ce:cross-refs refid="fd2 fd3 sch6 fd14"
                          id="crs15">Eqs. (2)&ndash;(14)</ce:cross-refs>
```



The "drop-down" menu, indicated above by the box underneath the "Eqs. (2)–(14)" (the text to click on), contains the ce:label elements of the four destinations, not all of which are displayed equations.

The rules for cross-referencing depend on the element. For each situation, a suggested "drop-down menu item" text is given below. In some cases, it is not even allowed to use ce:cross-refs to certain destinations.

Even though the XML validation checks the validity of the rules, rendering applications should be able to deal with exceptions and error situations. The `id` itself, for instance, could be used as a last resort.

No ce:cross-refs allowed

It is not allowed to use the one-to-many `ce:cross-refs` to the following destinations:

`ce:abstract`, `ce:affiliation`, `ce:anchor`, `ce:acknowledgment`, `ce:author`, `ce:biography`, `ce:collaboration`, `ce:def-term`, `ce:displayed-quote`, `ce:glossary-entry`, `ce:index-entry`, `ce:index-flag`, `ce:inter-ref`, `ce:inter-refs-text`, `ce:intra-ref`, `ce:intra-refs-text`, `ce:link`, `ce:note-para`, `ce:para`, `ce:section-title`, `ce:simple-para`, `ce:text`, `ce:textfn`, `ce:textref`.

It is, of course, allowed to use `ce:cross-ref`.

Mandatory ce:label

If the following elements are the target of a `ce:cross-refs`, they must have a `ce:label` element:

`ce:bib-reference` (*), `ce:correspondence` (*), `ce:e-component`, `ce:enunciation` (*), `ce:figure`, `ce:footnote` (*), `ce:list-item`, `ce:table`, `ce:table-footnote` (*), `ce:textbox`.

(*) Ensured by the DTD. The suggested "drop-down" text is the content of `ce:label`.

Mandatory ce:section-title

If the following elements are the target of a `ce:cross-refs` they must have a `ce:section-title` element:

`ce:bibliography` (*), `ce:bibliography-sec`, `ce:exam-answers`, `ce:exam-questions`, `ce:further-reading` (*), `ce:further-reading-sec` `ce:glossary` (*), `ce:glossary-sec`, `ce:index` (*), `ce:index-sec`.

(*) Ensured by the DTD. The suggested "drop-down" text is the content of the `ce:section-title`.

Mandatory ce:label or ce:section-title

If the following elements are the target of a `ce:cross-refs` (plural), they must have a `ce:label` and/or a `ce:section-title` element:

`ce:def-list`, `ce:list`, `ce:section`.

The suggested "drop-down" text is the concatenation of the `ce:label` and the `ce:section-title`.

Element *ce:formula*

If the `ce:formula` does not contain nested `ce:formula`e, then it must have a `ce:label` subelement if it is the target of `ce:cross-ref` or `ce:cross-refs`.

If the `ce:formula` has nested `ce:formula` subequations, then the following rules apply.

1. If the top `ce:formula` is the target of a cross-reference (`ce:cross-ref` or `ce:cross-refs`), either it must possess a `ce:label` element itself or all nested `ce:formula`e must possess one.

2. If a nested ce:formula is the target of a cross-reference, it must have a ce:label element.
3. A ce:label may not occur on both the top and the nested level.

The suggested "drop-down menu" item text belonging to an id contains the content of the ce:label or the ce:labels of the sublevel.

Elements *sb:reference*, *ce:other-ref*

If beside an sb:reference the parent ce:bib-reference does not contain any other sb:reference nor any ce:other-refs, then the sb:reference may not be the target of a cross-reference. (The reference must be made to the ce:bib-reference.)

If beside a ce:other-ref the parent ce:bib-reference does not contain any other ce:other-ref nor any sb:references, then the ce:other-ref may not be the target of a cross-reference. (The reference must be made to the ce:bib-reference.)

Any elements sb:reference and ce:other-ref that are the target of a cross-reference, must have a ce:label subelement.

All bibliographic references within ce:bibliography must be referred to from within the document (unless the XML file is of the HEAD-AND-TAIL variety). This means that for each ce:bib-reference at least one reference is made to either the id of the ce:bib-reference (and to zero or more child-sb:references and child-ce:other-refs) *or* to the ids of all child-sb:references and all child-ce:other-refs.

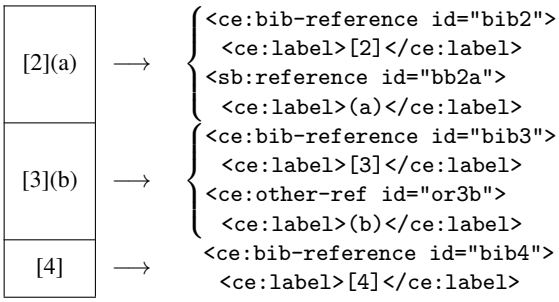
The elements sb:reference and ce:other-ref are "incomplete" cross-reference targets: their ce:label element is not meaningful for cross-referencing purposes without the ce:label element of their parent. This means that, in a one-to-many link with sb:reference and/or ce:other-ref elements, the "drop-down menu" (see earlier in this section) should show a combination of the ce:label elements of the cross-referenced sb:reference or ce:other-ref and that of the parent ce:bib-reference element.

XML

```
<ce:para id="p63">...
  Refs. <ce:cross-refs refid="bb2a or3b bib4"
    id="crs15">[2a,3b,4]</cross-refs>
...
<ce:bibliography id="bbl1">...
  <ce:bib-reference id="bib2"><ce:label>[2]</ce:label>
    <sb:reference id="bb2a"><ce:label>(a)</ce:label>...
    <sb:reference id="bb2b"><ce:label>(b)</ce:label>...
  </ce:bib-reference>
  <ce:bib-reference id="bib3"><ce:label>[3]</ce:label>
    <sb:reference id="bb3a"><ce:label>(a)</ce:label>...
    <ce:other-ref id="or3b"><ce:label>(b)</ce:label>...
  </ce:bib-reference>
  <ce:bib-reference id="bib4"><ce:label>[4]</ce:label>...
  </ce:bib-reference>
```

Presentation

see Refs. [2a,3b,4]



Text effects

The text effect elements are listed in the parameter entity %text-effect; and include the elements ce:sup, ce:inf, ce:hsp, ce:vsp, the font-decoration elements ce:underline, ce:cross-out, as well as the five font-changing elements. The element ce:br is also considered to be a text effect element.

The content of the font-changing and font-decoration elements and the text effects ce:sup and ce:inf is described by the parameter entity %richstring.data;. They may contain text, but no footnotes, anchors, cross-references and MathML formulae.

Font-changing and font-decoration elements

The opening tag of a font-changing or font-decoration element changes the properties of the font. The font-decoration elements and most font-changing elements, the font-*style* changing elements, change only one aspect of the current font, but other font-changing elements, the font-*family* changing elements, replace the current font. The closing tag undoes the changes and restores the font properties to the values that were in effect at the opening tag.

The font-changing elements are listed in the parameter entity %font-change;. Their meaning is listed in Table 3.

Table 3: The font-changing and font-decoration elements.

Element	Sample input	Sample output
Font-decoration elements		
ce:underline	<ce:underline>any</ce:underline>	any
ce:cross-out	<ce:cross-out>any</ce:cross-out>	~~any~~
Font-style changing elements		
ce:italic	<ce:italic>any</ce:italic>	*any*
ce:bold	<ce:bold>P</ce:bold>(x)	**P**(x)
ce:small-caps	<ce:small-caps>Goldfarb</ce:small-caps>	GOLDFARB
Font-family changing elements		
ce:monospace	<ce:monospace>var</ce:monospace>	var
ce:sans-serif	<ce:sans-serif>A</ce:sans-serif>	A

The default font, i.e. the font that is used when no font-changing element is open, is defined by the journal style. In print that is the journal's typesetting instructions. There are no font-changing elements to set the font to the default font. One can only revert to the default font by closing all font-changing elements.

Combinations of font-changing and font-decoration elements

For all types of font-changing and font-decoration elements that can be combined with each other, the order in which they are opened is irrelevant.

Font-family changing elements ce:sans-serif, ce:monospace. The font-family changing elements ce:sans-serif and ce:monospace are mutally exclusive. If these elements

are nested, the outer font-family changing element loses its effect until the inner font-family changing element is closed.

Font-style changing elements `ce:italic`, `ce:bold` *and* `ce:small-caps` *and font-decoration elements* `ce:cross-out`, `ce:underline`. The font-style changing elements `ce:italic`, `ce:bold` and `ce:small-caps` and the font-decoration elements `ce:cross-out` and `ce:underline` can be combined with each other and with each of the font-family changing elements. The font-style changing elements have the effect of changing the style of the current font. The font-decoration elements have the effect of adding underlining or cross-out to the current font.

Text effect element `ce:br`. Text element `ce:br` can only be used in cells.

Copy edit considerations

Care must be taken that font-changing elements are switched off to avoid unwanted effects. For instance, compare the following two examples where a formula is structured outside MathML (which is to be avoided):

XML

```
<ce:italic>f(x<ce:sup>2</ce:sup>)</ce:italic>
```

Presentation

$f(x^2)$

Explanation

Observe that the parentheses and the superior 2 are italicized.

XML

```
<ce:italic>f</ce:italic>(<ce:italic>x</ce:italic><ce:sup>2</ce:sup>)
```

Presentation

$f(x^2)$

Font-changing and font-decoration elements cannot contain anchors and cross-references. When such an element occurs in a text with a font change or decoration, the font-changing or font-decoration elements must be closed before the element, opened at the start of the element's content and closed again at its end, and opened again after the element.

XML

```
<ce:italic>See
</ce:italic><ce:cross-ref id="cr053" refid="bib2"><ce:italic>Ref.
[2]</ce:italic></ce:cross-ref><ce:italic> for
an important restriction.</ce:italic>
```

Presentation

See Ref. [2] for an important restriction.

Font-changing elements should not be used to introduce a style. For instance, if titles are to be displayed in caps and small caps, this should be handled by the document style and not by the use of the element `ce:small-caps`.

Rendering notes

Rendering applications should be aware that certain glyphs may change appearance when a font-changing element is applied (e.g. a sans-serif "jnodot").

Version history

Prior to DTD 5.0, elements ce:italic, ce:bold, ce:small-caps, ce:monospace and ce:sans-serif were called it, b, scp, ty and ssf, respectively.

As open-face, German (fraktur) and script characters should only appear in math mode, the elements of, ge and sc have no counterparts in DTD 5.0. See the chapter on MathML (Chapter 11, p. 529) for more information.

The elements ce:cross-out and ce:underline were introduced in DTD 5.0 by popular demand.

Parameter entities

Here we list the parameter entities that are used in the DTDs. Parameter entities are used to define common parts of a DTD, i.e., parts that are (or could be) used several times. We distinguish three groups of parameter entities, according to their role in the DTDs.

Data entities

Data entities contain elements that appear within the text; each data entity contains a group of elements that play a similar role in the structuring of an article, and that therefore appear as alternatives of each other.

```
<!ENTITY % font-change     "ce:bold|ce:italic|ce:monospace|ce:sans-serif|
                            ce:small-caps">

<!ENTITY % text-effect     "%font-change;|ce:sup|ce:inf|ce:underline|
                            ce:cross-out|ce:hsp|ce:vsp">

<!ENTITY % text-objects    "ce:anchor|ce:grant-sponsor|ce:grant-number">

<!ENTITY % lists           "ce:def-list|ce:list">

<!ENTITY % math            "mml:math|ce:math">

<!ENTITY % display         "ce:display|ce:displayed-quote|ce:enunciation">

<!ENTITY % string.data     "#PCDATA %local.string.data;">

<!ENTITY % richstring.data "#PCDATA|ce:glyph|%text-effect;|
                            ce:inline-figure %local.richstring.data;">

<!ENTITY % text.data       "%richstring.data;|%math; %local.text.data;">

<!ENTITY % textlink.data   "%text.data;|ce:inter-ref">

<!ENTITY % textfn.data     "%text.data;|ce:footnote|
                            %cross-ref-s; %local.textfn.data;">

<!ENTITY % textref.data    "%text.data;|%cross-ref-s;|
                            %inter-ref-s; %local.textref.data;">

<!ENTITY % nondisplay.data "%textref.data;|ce:footnote|
                            ce:anchor %local.nondisplay.data;">

<!ENTITY % note.data       "%textref.data;|%display;|%lists;|
                            %text-objects; %local.note.data;">

<!ENTITY % cell.data       "%textref.data;|%display;|%lists;|%cell-borders;|
                            tb:alignmark|ce:br %local.cell.data;">

<!ENTITY % spar.data       "%textref.data;|%display;|%lists;|ce:footnote|
                            %text-objects; %local.spar.data;">

<!ENTITY % par.data        "%textref.data;|ce:float-anchor|%display;|
                            %lists;|ce:footnote|
                            %text-objects; %local.par.data;">
```

The “local” entities, e.g. `%local.par.data;` or `%local.spar.data;`, are all declared to be empty in the common element pool. However, they can be used by DTDs to add elements to the content of the data entities. For example, in books it is useful to add information to the text that can later be used to generate an index. This can be done with `ce:index-flag`. The Elsevier Book DTD therefore declares the following two “local” entities:

```
<!ENTITY % local.spar.data "| ce:index-flag">
<!ENTITY % local.par.data  "| ce:index-flag">
```

The effect is that ce:index-flag can appear in any element that has %par.data; or %spar.data; in its content model.

The above .data entities were introduced to make the DTD more restrictive. Table 4 shows which elements in the common element pool have which parameter entity as content model.

Table 4: Content model of data elements

Parameter entity	Elements with that data model
%string.data;	ce:alt-text, ce:article-number, ce:copyright, ce:doi, ce:edition, ce:indexed-name, ce:initials, ce:isbn, ce:issn, ce:pii, sb:article-number, sb:isbn, sb:issn
%richstring.data;	ce:alt-name, ce:anchor, ce:bold, ce:copyright-line, ce:cross-out, ce:degrees, ce:first-page, ce:given-name, ce:imprint, ce:inf, ce:italic, ce:last-page, ce:monospace, ce:ranking, ce:roles, ce:sans-serif, ce:small-caps, ce:suffix, ce:sup, ce:underline, sb:date, sb:edition, sb:first-page, sb:issue-nr, sb:last-page, sb:location, sb:name, sb:volume-nr
%text.data;	ce:collab-aff, ce:compound-formula, ce:compound-name, ce:cross-ref, ce:cross-refs, ce:def-term, ce:e-address, ce:grant-number, ce:grant-sponsor, ce:index-flag-see, ce:index-flag-see-also, ce:index-flag-term, ce:inter-ref, ce:inter-ref-title, ce:inter-refs-text, ce:intra-ref, ce:intra-ref-title, ce:intra-refs-text, ce:label, ce:miscellaneous, ce:reader-see, ce:salutation, ce:see, ce:see-also, ce:surname, sb:collaboration, sb:conference, sb:maintitle, sb:subtitle
%textlink.data;	ce:text
%textfn.data;	ce:alt-title, ce:alt-subtitle, ce:chem, ce:dedication, ce:presented, ce:subtitle, ce:textfn, ce:title
%textref.data;	ce:glossary-def, ce:glossary-heading, ce:index-heading, ce:textref
%nondisplay.data;	ce:section-title, sb:comment, mml:mtext
%note.data;	ce:note-para, ce:source
%cell.data;	entry
%spar.data;	ce:simple-para
%par.data;	ce:para
%parsec;	ce:sections
%name;	sb:author, sb:editor

The general-purpose elements ce:text, ce:textfn and ce:textref use these data entities also and are used as containers in order to avoid mixed content.

To find out which elements can be used in e.g. %textfn.data; the parameter entities in its model need to be expanded. Parameter entities in an expanded model also need to be expanded, etc. If we take the "local" entities to be empty, then it becomes clear that %textfn.data; can contain everything %text.data; can contain as well as the elements ce:footnote, ce:cross-ref, ce:cross-refs, ce:inter-ref and ce:inter-refs. Entity %textref.data; can contain the same elements as %textfn.data; except for ce:footnote; additionally elements ce:inter-ref and ce:inter-refs are allowed.

The elements ce:note-para and ce:simple-para are variants of the paragraph element in which fewer structures are allowed. The following elements consist of simple paragraphs: ce:abstract-sec, ce:biography, ce:caption, ce:legend, ce:note (in the bibliography), ce:displayed-quote. The following elements consist of note paragraphs: ce:article-footnote, ce:footnote, ce:table-footnote.

Content model entities

Content model entities contain pieces of content model that are shared by several elements.

```
<!ENTITY % copyright       "ce:copyright, ce:copyright-line?">

<!ENTITY % name            "( ( ce:given-name, ce:surname ) | ( ce:surname,
                            ce:given-name? ) ), ce:suffix?, ce:alt-name* ">

<!ENTITY % parsec          "( ce:para | ce:section )+">

<!ENTITY % titles          "( ce:title, ce:subtitle?, ( ce:alt-title,
                            ce:alt-subtitle? )* )">

<!ENTITY % sb.titles       "( ( sb:title, sb:translated-title? ) |
                            sb:translated-title )">

<!ENTITY % cross-ref-s     "%cross-ref;|%cross-refs;">

<!ENTITY % inter-ref-s     "ce:inter-ref|ce:inter-refs">

<!ENTITY % cell-borders    "tb:top-border|tb:left-border|tb:bottom-border|
                            tb:right-border">
```

The following parameter entities are overruled by other DTDs. The local declarations are described in the documentation of the other DTDs. Below are the default values.

```
<!ENTITY % see             "ce:see">

<!ENTITY % glossary-entry-refs"( ce:see+ | ( ce:cross-ref | ce:intra-ref |
                               ce:inter-ref )+ )">

<!ENTITY % index-entry-refs"( ce:see+ | ( ce:cross-ref | ce:intra-ref )+ )">

<!ENTITY % cross-ref       "ce:cross-ref|ce:intra-ref">

<!ENTITY % cross-refs      "ce:cross-refs|ce:intra-refs">
```

Attribute type entities

Attribute type entities contain sets of possible values for attributes.

```
<!ENTITY % abstract-class  "(author|editor|graphical|teaser|
                            author-highlights|editor-highlights|sda)">

<!ENTITY % copyright-type  "(full-transfer|limited-transfer|no-transfer|
                            unknown|us-gov|crown|society|other|joint|
                            free-of-copyright)">

<!ENTITY % e-address-type  "(email|url|social-media)">

<!ENTITY % hline           "(bar|tcub|bcub|tsqb|bsqb|circ|tilde|larr|rarr|
                            harr|lharu|rharu|tpar|bpar)">

<!ENTITY % language        "(de|en|es|fr|it|pt|ru)">

<!ENTITY % language-type   "(en|non-en|iso|unknown)">

<!ENTITY % loc             "(pre|post)">
```

```
<!ENTITY % style          "(s|d|t|da|dot|b|bl|n)">

<!ENTITY % view           "(compact|standard|extended|compact-standard|
                           standard-extended|all)">
<!ENTITY % vline          "(lpar|rpar|lsqb|rsqb|lcub|rcub|lang|rang|vb|sol|
                           bsol|lceil|rceil|lfloor|rfloor|dharr|uharr|darr|
                           uarr|varr)">
<!ENTITY % yesorno        "(0|1)">
```

In addition there are the attribute type entities %iso639; and %glyph-names;.

Entity %iso639; contains the ISO 639 list of language codes. These codes are described in a separate section (p. 192).

Entity %glyph-names; contains the names of additional allowed glyphs (not present as Unicode characters). They are described in the section Elsevier's additional glyphs (p. 19). See also the description of ce:glyph.

```
<!ENTITY % iso639-cur     "aa|ab|af|am|ar|as|ay|az|ba|be|bg|bh|bi|bn|bo|br|
                           ca|co|cs|cy|da|de|dz|el|en|eo|es|et|eu|fa|fi|fj|
                           fo|fr|fy|ga|gd|gl|gn|gu|ha|he|hi|hr|hu|hy|ia|id|
                           ie|ik|is|it|ja|jw|ka|kk|kl|km|kn|ko|ks|ku|ky|la|
                           ln|lo|lt|lv|mg|mi|mk|ml|mn|mo|mr|ms|mt|my|na|ne|
                           nl|no|oc|om|or|pa|pl|ps|pt|qu|rm|rn|ro|ru|rw|sa|
                           sd|sg|si|sk|sl|sm|sn|so|sq|sr|ss|st|su|sv|sw|ta|
                           te|tg|th|ti|tk|tl|tn|to|tr|ts|tt|tw|uk|ur|uz|vi|
                           vo|wo|xh|yi|yo|zh|zu">
<!ENTITY % iso639-obs     "">

<!ENTITY % iso639         "(%iso639-cur; %iso639-obs;)">

<!ENTITY % glyph-names    "'(S|bigdot|btmlig|camb|ctl|dbnd|dbnd6|dcurt|
                           dlcorn|drcorn|ggrave|hbar|heng|herma|hris|hriss|
                           hrttrh|ht|jnodot|lbd2bd|lbd2td|lbond2|lbond3|
                           lozf|lozfl|lozfr|lris|lriss|ncurt|nsmid|nspar|
                           pSlash|pdbdtd|pdbond|pent|phktp|ptbdbd|ptbdtd|
                           qbnd|qbnd6|rad|rbd2bd|rbd2td|rbond2|rbond3|
                           refhrl|resmck|risfla|risfls|sbnd|sbw|smid|spar|
                           sqfb|sqfne|sqfsw|sqft|tbnd|tbnd6|tcurt|trisla|
                           trnomeg)'">
```

Version history

In CEP 1.1.1 value it was added to %language;.

In CEP 1.1.2 ce:br was added to %cell.data;. Entities %copyright; and %external-file.att; were introduced while %size-info.att; was removed.

In CEP 1.1.3 %see; was introduced.

In CEP 1.1.4 %see; was removed while %glossary-entry-refs; and %index-entry-refs; were added. Entity %common-reqaltimg.att; was added to CEPs 1.1.4 and 1.1.0.1.

In CEP 1.1.5 %text-objects; was added. It replaced element ce:anchor in %note.data;, %spar.data; and %par.data;. Entity %language; was removed.

In CEP 1.1.6 elements ce:see and ce:inter-ref were added to entity %glossary-entry-refs;, while multiple ce:see elements were made possible in entity %index-entry-refs;.

In CEP 1.2.0 ce:alt-name was added to %name; and ce:copyright-line was added to %copyright;. Additionally values author-highlights, editor-highlights and sda were added to %abstract-class;, while value free-of-copyright was added to %copyright-type;.

In CEP 1.4.0 entity %textlink.data; was introduced.

In CEP 1.5.0 entity %math; was introduced and value social-media was added to %e-address-type;.

ISO 639 list of language codes

This section gives a description of the two-letter languages codes from International Standard ISO 639. These codes are used by all elements whose `xml:lang` attributes take their values in `%iso639;`.

language	Language	language	Language	language	Language
ab	Abkhazian	is	Icelandic	ro	Romanian
aa	Afar	id	Indonesian	rn	Rundi
af	Afrikaans	ia	Interlingua	ru	Russian
sq	Albanian	ie	Interlingue	sm	Samoan
am	Amharic	ik	Inupiaq	sg	Sango
ar	Arabic	ga	Irish Gaelic	sa	Sanskrit
hy	Armenian	it	Italian	gd	Scots Gaelic
as	Assamese	ja	Japanese	sr	Serbian
ay	Aymara	jw	Javanese	sn	Shona
az	Azerbaijani	kl	Kalaallisut	sd	Sindhi
ba	Bashkir	kn	Kannada	si	Sinhalese
eu	Basque	ks	Kashmiri	sk	Slovak
be	Belarusian	kk	Kazakh	sl	Slovenian
bn	Bengali	km	Khmer	so	Somali
bh	Bihari	rw	Kinyarwanda	st	Southern Sotho
bi	Bislama	ky	Kirghiz	es	Spanish
br	Breton	ko	Korean	su	Sudanese
bg	Bulgarian	ku	Kurdish	sw	Swahili
my	Burmese	lo	Lao	ss	Swati
ca	Catalan	la	Latin	sv	Swedish
zh	Chinese	lv	Latvian	tl	Tagalog
co	Corsican	ln	Lingala	tg	Tajik
hr	Croatian	lt	Lithuanian	ta	Tamil
cs	Czech	mk	Macedonian	tt	Tatar
da	Danish	mg	Malagasy	te	Telugu
nl	Dutch	ms	Malay	th	Thai
dz	Dzongkha	ml	Malayalam	bo	Tibetan
en	English	mt	Maltese	ti	Tigrinya
eo	Esperanto	mi	Maori	to	Tonga
et	Estonian	mr	Marathi	ts	Tsonga
fo	Faroese	mo	Moldavian	tn	Tswana
fj	Fijian	mn	Mongolian	tr	Turkish
fi	Finnish	na	Nauru	tk	Turkmen
fr	French	ne	Nepali	tw	Twi
fy	Frisian	no	Norwegian	uk	Ukrainian
gl	Gallegan	oc	Occitan	ur	Urdu
ka	Georgian	or	Oriya	uz	Uzbek
de	German	om	Oromo	vi	Vietnamese
el	Greek	pa	Panjabi	vo	Volapük
gn	Guarani	fa	Persian	cy	Welsh
gu	Gujarati	pl	Polish	wo	Wolof
ha	Hausa	pt	Portuguese	xh	Xhosa
he	Hebrew	ps	Pushto	yi	Yiddish
hi	Hindi	qu	Quechua	yo	Yoruba
hu	Hungarian	rm	Rhaeto-Romance	zu	Zulu

Views

The need to distinguish several product types and to support these from a single source XML file, has led to the introduction of the `view` attribute. The following common elements possess a `view` attribute:

ce:abstract	ce:exam-reference	ce:keywords
ce:abstract-sec	ce:further-reading	ce:nomenclature
ce:acknowledgment	ce:further-reading-sec	ce:note-para
ce:appendices	ce:glossary	ce:para
ce:bibliography	ce:glossary-sec	ce:section
ce:bibliography-sec	ce:include-item	ce:simple-para
ce:biography	ce:index	ce:stereochem
ce:exam-answers	ce:index-sec	
ce:exam-questions	ce:intro	

Some elements in the DTDs also possess this attribute, e.g. `body` in the JA DTD.

The values that this attribute can take are listed in `%view;`, they are: `compact`, `standard`, `extended`, `compact-standard`, `standard-extended` and `all` (default, meaning all three views). If no view attribute is specified, this is the same as `all`.

In this model, an application decides it is either “compact”, “standard” or “extended”. An application that has, say, extended views displays all elements whose `view` attribute has values `all`, `standard-extended` and `extended` and ignores all elements with other values.

Application	Render only elements with views
compact	`all`, `compact`, `compact-standard`
standard	`all`, `standard`, `compact-standard`, `standard-extended`
extended	`all`, `extended`, `standard-extended`

Online applications such as ScienceDirect® are typically “extended” applications, while the printed version typically is “standard”. Palmtop devices and such could be “compact”.

Online versus extended

While it is useful to visualize “extended” as the online product and standard as the print product, this is not necessarily the case. It should be perfectly possible to print an extended product — or, create a web PDF file for it. There are numerous cases of products where a PDF file appears online of a full journal article, while the printed issue only contains the abstract.

Views should not be confused with electronic components. Electronic components are captured with `ce:e-component`. These are external files that in principle could contain anything. It is a mistake to think that these can only appear in “extended” views; indeed, they can appear in compact, standard and extended views. On paper, this means showing the `ce:alt-e-component` subelement, only in electronic products one can, of course, benefit from the real electronic component. Note that a web PDF file, although an “electronic file”, is not suitable for e-components, yet, as explained above, it may well contain the extended view.

Floats (figures, tables, textboxes, electronic components) that only appear within some views, say only in extended views, are contained within `ce:floats` along with the other floats. Their `ce:float-anchor` can be found within an extended section or paragraph.

Hence, e-component vs. conventional and standard view vs. extended view are two independent things, indeed all four combinations make sense, including:

- A figure within an extended view. This is a figure that satisfies all the CAP specifications for artwork regarding file types and resolution.
- An e-component within *any* view. This can, in principle, be any external component varying: audio, video, spreadsheets, source documents. Still images can also be e-components: this signals that the artwork has not undergone the stringent CAP validation. In media that cannot handle the e-component, `ce:alt-e-component` is used.

Views within views

Applications choose to be exactly one of "compact", "standard", or "extended". If an application encounters an element with a view that is not meant for it, it should skip the element completely, irrespective of what it contains.

For instance, if an "extended" application encounters a section with a `compact-standard` view, it ignores that whole section completely. If, within that section there happen to be paragraphs or sections with views `extended`, then these will *not* display in the extended application at all, and also the paragraphs with the default view `all` will not be picked up by the extended application. Consequently, views within views only make sense if they narrow down the view.

Example 1.

The first example deals with a collection of electronic components that are added to the online version. The printed version only contains a link to the online version.

XML

```
<ce:appendices>
  <ce:section id="s450" view="compact-standard">
    <ce:label>Appendix A</ce:label>
    <ce:section-title id="st140">Background data</ce:section-title>
    <ce:para id="p350">The online version of this article contains
      additional background data in the form of Microsoft Excel
      spreadsheets and in additional maps. Please visit <ce:inter-ref
      id="ir082" xlink:href="doi:10.1016/j.cagd.2004.01.003">
      https://doi.org/10.1016/j.cagd.2004.01.003</ce:inter-ref>.
    </ce:para>
  </ce:section>
  <ce:section id="s460" view="extended">
    <ce:label>Appendix A</ce:label>
    <ce:section-title id="st150">Background data</ce:section-title>
    <ce:para id="p351">The results of the experiments of the previous
      sections are included as Microsoft Excel spreadsheets. The
      first spreadsheet, <ce:cross-ref id="cr040" refid="ec1">
      Spreadsheet 1</ce:cross-ref><ce:float-anchor refid="ec1"/> is
      ordered by country, while <ce:cross-refs id="crs002"
      refid="ec2 ec3">Spreadsheets 2 and 3</ce:cross-refs>
      <ce:float-anchor refid="ec2"/><ce:float-anchor refid="ec3"/>
      are ordered by population.
```

```
    </ce:para>
    <ce:para id="p352">Furthermore, the data is displayed in
      thirty-seven maps of the largest world cities, <ce:cross-refs
      id="crs003" refid="map1 map2 ... map37">Maps I&ndash;XXXVII
      </ce:cross-refs><ce:float-anchor refid="map1"/>...
      <ce:float-anchor refid="map37"/>.
    </ce:para>
  </ce:section>
```

Explanation

The printed product would display the first `ce:section`, explaining that the online version contains additional background data. The second `ce:section` would be displayed by ScienceDirect®.

The float anchors refer to electronic components within `ce:floats`.

Example 2

In some publications, it is common to publish the appendices only online. The printed product only contains the main body of the text. This is achieved using `ce:appendices` with an extended view.

Similarly, there are journals for which some less important articles only appear full text online; the printed product merely contains the head of the article. This is achieved by furnishing `body` and `tail` with an extended view only.

Cross-referencing to the right view

It is only allowed to cross-reference to a destination that is contained within equal or wider view than where the cross-reference appears, so as to avoid linking to a destination that does not exist in a certain rendering.

Suppose that there are two sections, one compact-standard and one extended, created in order to obtain two parallel views of the section. Suppose both sections contain a version of the same enunciation Theorem 1. Then the only way to cross-reference to Theorem 1 from within a portion of the text is to also create two parallel paragraphs with different views, each containing a `ce:cross-ref` to the appropriate version of the enunciation.

Chapter 8
The Elements of the CEP

This chapter contains an alphabetic listing of the elements in the "core" common element pool; i.e., it excludes the elements for structuring bibliographic references, MathML and Extended CALS tables.

ce:abstract

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:abstract          ( ce:section-title?, ce:abstract-sec+,
                                  ce:figure? )>
<!ATTLIST  ce:abstract
           id                   ID                 #IMPLIED
           class                %abstract-class;   "author"
           xml:lang             %iso639;           #IMPLIED>
```

Model (CEPs 1.1.6–1.6.0)

```
<!ELEMENT  ce:abstract          ( ce:section-title?, ce:abstract-sec+,
                                  ce:figure? )>
<!ATTLIST  ce:abstract
           id                   ID                 #IMPLIED
           view                 %view;             'all'
           class                %abstract-class;   "author"
           xml:lang             %iso639;           #IMPLIED>
```

Description

The element `ce:abstract` is used to capture abstracts in a variety of forms.

Usage

The word "abstract" has various different meanings in publishing. For instance, a very short article, often in conference proceedings, is called an abstract, and so are short summaries of articles or chapters appearing in the frontmatter. The element `ce:abstract` is used to capture abstracts in the latter sense. It consists of an optional title, one or more abstract-sections, and an optional figure. It has three attributes, `id`, `class` and `xml:lang`. For each combination of `class` and `xml:lang`, only one abstract may exist in the document.

The language of the abstract, when different from the language of the article, should be specified in the `xml:lang` attribute. It takes its values in the ISO 639 set of entities (p. 192).

The type of abstract is specified by the `class` attribute, which takes its values in `%abstract-class;` containing the following values.

- `author` (default) is used for abstracts supplied by the author.
- `author-highlights` is a short list of article highlights supplied by the author.
- `editor` is used for abstracts supplied by the editor.
- `editor-highlights` is a short list of article highlights supplied by the editor.
- `graphical` is used for graphical abstracts. Only these abstracts may contain the optional `ce:figure`.
- `sda` is used for structural digital abstracts. An SDA is a structured summary of protein interactions mentioned in the article.
- `teaser` is used for short "teaser" abstracts that attract the attention of the reader. Usually, the teaser abstracts are not found in the rendering of the item itself; instead, they are commonly used to create an extended table of contents of an issue (i.e., a table of contents interspersed with teaser abstracts).

XML

```
<ce:abstract id="abs001">
  <ce:section-title id="secti001">Abstract</ce:section-title>
  <ce:abstract-sec id="abss001">
    <ce:simple-para id="sp001">In this document, we introduce
      the new XML DTD.</ce:simple-para>
  </ce:abstract-sec>
</ce:abstract>
<ce:abstract id="abs001fr" xml:lang="fr">
  <ce:section-title id="secti002">Résumé</ce:section-title>
  <ce:abstract-sec id="abss002">
    <ce:simple-para id="sp002">Dans ce document, on présente
      le nouveau DTD XML.</ce:simple-para>
  </ce:abstract-sec>
</ce:abstract>
```

Abstract sections may have a section title, and each `ce:abstract-sec` except the first must have a section title.

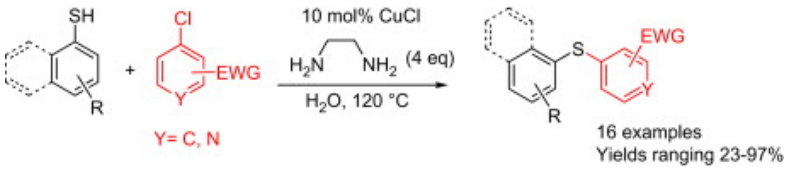
Graphical abstracts have a `ce:figure`. If they contain text, this text comes in the usual place, in `ce:abstract-sec` elements before the figure.

XML

```
<ce:abstract class="graphical" id="abs002">
  <ce:section-title id="secti003">Graphical abstract</ce:section-title>
  <ce:abstract-sec id="abss003">
    <ce:simple-para id="sp003">Copper chloride-catalyzed S-arylation
      of arenethiols is effected with activated aryl chlorides
      in water by using ethylenediamine as the pair
      ligand/base.</ce:simple-para>
  </ce:abstract-sec>
  <ce:figure id="f001">
    <ce:link locator="fx1" xlink:type="simple" xlink:role=
      "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
      xlink:href="pii:S09507051150010445/fx1"/>
  </ce:figure>
</ce:abstract>
```

Presentation

Copper chloride-catalyzed S-arylation of arenethiols is effected with activated aryl chlorides in water by using ethylenediamine as the pair ligand/base.



XML

```
<ce:abstract class="author-highlights" id="abs003">
  <ce:section-title id="secti004">Highlights</ce:section-title>
  <ce:abstract-sec id="abss004">
    <ce:simple-para id="sp004">
      <ce:list id="list001">
        <ce:list-item id="listi001">
          <ce:label>•</ce:label>
```

```
            <ce:para id="p001">We solve an open problem left by
              Clifford and Popa.</ce:para></ce:list-item>
          <ce:list-item id="listi002">
            <ce:label>•</ce:label>
            <ce:para id="p002">We show that finding
              <ce:italic>k</ce:italic> subsets of maximum
              intersection is NP-hard.</ce:para></ce:list-item>
          <ce:list-item id="listi003">
            <ce:label>•</ce:label>
            <ce:para id="p003">We also show that the problem is
              hard to approximate.</ce:para></ce:list-item>
        </ce:list>
      </ce:simple-para>
    </ce:abstract-sec>
  </ce:abstract>
```

Presentation

Highlights

- We solve an open problem left by Clifford and Popa.
- We show that finding k subsets of maximum intersection is NP-hard.
- We also show that the problem is hard to approximate.

Rendering notes

Abstracts, especially of the non-author classes, are not necessarily presented in the article. It is not uncommon for abstracts to be presented in an extended table of contents.

Copyright lines appended to the abstract are implied by the `ce:copyright` element.

Version history

Prior to DTD 5.0, this element was called `abs`. Then the heading was generated automatically, it did not contain an `id` attribute, and the `class` attribute had no default value. As from CEP 1.1.0 the `xml:lang` attribute takes its values in `%iso639;`. The `view` attribute was added in CEP 1.1.6. The `class` values `author-highlights`, `editor-highlights` and `sda` were added in CEP 1.2.0.

ce:abstract-sec

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:abstract-sec      ( ce:section-title?, ce:simple-para+ )>
```

Model (CEP 1.1.6)

```
<!ELEMENT  ce:abstract-sec      ( ce:section-title?, ce:simple-para+ )>
<!ATTLIST  ce:abstract-sec
           id                   ID              #IMPLIED
           view                 %view;          'all'>
```

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  ce:abstract-sec      ( ce:section-title?, ce:simple-para+ )>
<!ATTLIST  ce:abstract-sec
           id                   ID              #IMPLIED
           role                 CDATA           #IMPLIED
           view                 %view;          'all'>
```

Description

The element ce:abstract-sec contains a section within the abstract.

Usage

The attribute role allows one to categorize abstract sections, and attach a special meaning to them. Applications should ignore roles unknown to them and treat those abstract sections as usual. The role must belong to a list validated by the XML validation tools. At the time of writing, the following, self-explanatory, roles exist.

- background
- case-study
- conclusion
- discussion
- introduction
- materials-methods
- research-in-context
- results

Version history

The id and view attributes were added in CEP 1.1.6, while the role attribute was added in CEP 1.2.0.

See also

ce:abstract

ce:acknowledgment

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:acknowledgment     ( ce:section-title?, ce:para+ )>
<!ATTLIST  ce:acknowledgment
           id                    ID               #IMPLIED>
```

Model (CEPs 1.1.6–1.4.0)

```
<!ELEMENT  ce:acknowledgment     ( ce:section-title?, ce:para+ )>
<!ATTLIST  ce:acknowledgment
           id                    ID               #IMPLIED
           role                  CDATA            #IMPLIED
           view                  %view;           'all'>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:acknowledgment     ( ce:section-title?, %parsec; )>
<!ATTLIST  ce:acknowledgment
           id                    ID               #IMPLIED
           role                  CDATA            #IMPLIED
           view                  %view;           'all'>
```

Description

The element ce:acknowledgment is used to capture an acknowledgment section within the body.

Usage

The acknowledgment section has an optional section title and consists of one or more paragraphs and sections. Each type of acknowledgment is to be captured in its own subsection and distinguished by a role. The following roles are defined:

- funding
- contributing
- supporting
- facilities
- supplies
- conflict-of-interest
- sponsor-role

XML

```
<ce:acknowledgment id="ceack0010">
  <ce:section-title id="cest0020">Acknowledgment</ce:section-title>
  <ce:para id="cepara0045">The editors thank Bill Bernickus, Ton Bos,
   Jeroen Hogendorp, Simon Pepping, Rob Schrauwen, Chris Sturhann,
   Michael Ward and Ramanathan Ganapathi
   for their contributions.</ce:para>
</ce:acknowledgment>
```

XML

```
<ce:acknowledgment id="ack0010">
  <ce:section-title id="cest0125">Acknowledgments</ce:section-title>
  <ce:para id="p0165" role="supporting">We thank T. Gonzales at the
    Texas Advanced Computing Center for providing the super computing
    system for data analysis, and Ju Li for helpful discussions to
    improve the manuscript. No conflict of interest declared.</ce:para>
  <ce:section id="sec5" role="funding">
    <ce:section-title id="cest0130">Funding</ce:section-title>
    <ce:para id="p0170">This work is supported by grants
      (<ce:grant-number refid="gs1">IOS1025947</ce:grant-number> and
      <ce:grant-number refid="gs1">MCB1110957</ce:grant-number>) from
      the <ce:grant-sponsor id="gs1"
      sponsor-id="https://doi.org/10.13039/100000001">National
      Science Foundation</ce:grant-sponsor>.</ce:para>
  </ce:section>
  <ce:section id="sec6" role="contributing">
    <ce:section-title id="cest0135">Author Contributions</ce:section-title>
    <ce:para id="p0175">K.R.K., C.H.H, and N.G. conducted the
      experiments, analyzed the data, and wrote the paper. Z.C. and
      S.X. conducted the experiments. C.Z.J. designed the experiments,
      analyzed the data, and wrote the paper.</ce:para>
  </ce:section>
</ce:acknowledgment>
```

Version history

Prior to DTD 5.0, this element was called `ack`. Then it did not have a `ce:section-title`. The `role` and `view` attributes were added in CEP 1.1.6. In CEP 1.5.0 the model was changed to allow the use of subsections.

See also

`ce:grant-number`, `ce:grant-sponsor`

ce:affiliation

Declaration

Model (CEPs 1.1.0–1.1.6)

```
<!ELEMENT  ce:affiliation       ( ce:label?, ce:textfn )>
<!ATTLIST  ce:affiliation
           id                   ID              #IMPLIED
           role                 CDATA           #IMPLIED>
```

Model (CEPs 1.2.0, 1.4.0)

```
<!ELEMENT  ce:affiliation       ( ce:label?, ce:textfn, sa:affiliation? )>
<!ATTLIST  ce:affiliation
           id                   ID              #IMPLIED
           role                 CDATA           #IMPLIED>
```

Model (CEP 1.5.0)

```
<!ELEMENT  ce:affiliation       ( ce:label?, ce:textfn, sa:affiliation? )>
<!ATTLIST  ce:affiliation
           id                   ID              #IMPLIED
           role                 CDATA           #IMPLIED
           affiliation-id       CDATA           #IMPLIED>
```

Model (CEP 1.6.0)

```
<!ELEMENT  ce:affiliation       ( ce:label?, ce:textfn, sa:affiliation?,
                                  ce:source-text? )>
<!ATTLIST  ce:affiliation
           id                   ID              #IMPLIED
           role                 CDATA           #IMPLIED
           affiliation-id       CDATA           #IMPLIED>
```

Description

Affiliations are captured using the element ce:affiliation.

Usage

An author group (ce:author-group) may contain any number of affiliations.

It is allowed to have affiliations with no associated authors or collaborations. Such affiliations cannot have an id, because each affiliation with an id must be referred to. An affiliation with an id must have a ce:label element.

Currently no roles have been defined for the optional role attribute.

The ce:label element does not contain presentational elements, only the label of the affiliation. Linking of affiliations to authors is described under the ce:author-group element.

The actual content of the affiliation is found within the ce:textfn container subelement.

It is followed by sa:affiliation that contains the affiliation again, in a structured way. The element is optional for backward compatibility reasons, but it is required to be present.

The original text of the affiliation can be captured in element ce:source-text.

The attribute id can be used to link to the affiliation. The attribute affiliation-id contains a (globally) unique identification of the affiliation *within* the document. It is constructed from the content (ce:textfn).

XML

```
<ce:affiliation id="aff1"
  affiliation-id="S9999999416905646-0bedabc19e1fc077d4b6bb3ad8057ec5">
  <ce:label>a</ce:label>
  <ce:textfn>Elsevier, Radarweg 29,
    1043 NX Amsterdam, The Netherlands</ce:textfn>
  <sa:affiliation>
    <sa:organization>Elsevier</sa:organization>
    <sa:address-line>Radarweg 29</sa:address-line>
    <sa:city>Amsterdam</sa:city>
    <sa:postal-code>1043 NX<sa:postal-code>
    <sa:country>The Netherlands</sa:country>
  </sa:affiliation>
</ce:affiliation>
```

XML

```
<ce:affiliation id="aff2"
  affiliation-id="S9999999416905646-8e8ac469401077bd905ce2f997b9e7e0">
  <ce:label>b</ce:label>
  <ce:textfn>Elsevier Inc., P.O. Box 945, New York,
    NY 10159-0945, USA</ce:textfn>
  <sa:affiliation>
    <sa:organization>Elsevier Inc.</sa:organization>
    <sa:address-line>P.O. Box 945</sa:address-line>
    <sa:city>New York</sa:city>
    <sa:postal-code>NY 10159-0945<sa:postal-code>
    <sa:country>USA</sa:country>
  </sa:affiliation>
</ce:affiliation>
```

XML

```
<ce:affiliation id="aff3"
  affiliation-id="S9999999416905646-5b7a1b83a63dce0701b4b1423c21c0de">
  <ce:label>c</ce:label>
  <ce:textfn>Elsevier Ltd, The Boulevard, Langford Lane,
    Kidlington, Oxford OX5 1GB, UK</ce:textfn>
  <sa:affiliation>
    <sa:organization>Elsevier Ltd</sa:organization>
    <sa:address-line>The Boulevard</sa:address-line>
    <sa:address-line>Langford lane</sa:address-line>
    <sa:city>Kidlington</sa:city>
    <sa:state>Oxford</sa:state>
    <sa:postal-code>OX5 1GB<sa:postal-code>
    <sa:country>UK</sa:country>
  </sa:affiliation>
</ce:affiliation>
```

Version history

Subelement sa:affiliation was added in CEP 1.2.0. Attribute affiliation-id was added in CEP 1.5.0.

In CEP 1.6.0 subelement ce:source-text was added.

See also

ce:author-group and sa:affiliation

ce:alias

Declaration

Model (CEP 1.6.0)

```
<!ELEMENT  ce:alias              ( %string.data; )*>
```

Description

The alias of an author is captured using ce:alias.

Usage

Some authors from Asian countries in particular are in the habit of including a westernized version of their name in their article. This “alias” can be captured with ce:alias. It should not contain parentheses.

It is important to realize the difference between ce:alt-name and ce:alias: the alt-name element is intended to capture the author’s “official” name in its native language in case this is different from that of the article; the alias should capture the westernized version of that name.

XML

```
<ce:author id="au01"
  author-id="S0042682216902241-20b4236c673a5744c707e10366c5394e">
  <ce:given-name>Ming Li</ce:given-name>
  <ce:surname>Fu</ce:surname>
  <ce:alt-name>&#x660E;&#x674E;&#x5BCC;</ce:alt-name>
  <ce:alias>Jimmy</ce:alias>
</ce:author>
```

Presentation

Ming Li Fu (明李富) (“Jimmy”)

Version history

This element was added in CEP 1.6.0.

See also

ce:author-group, ce:author, ce:alt-name

ce:alt-e-component

Declaration

Model (CEPs 1.1.0–1.1.1)

```
<!ELEMENT  ce:alt-e-component    ( ce:link | ( ce:caption, ce:link? ) )>
```

Model (CEPs 1.1.2–1.1.6)

```
<!ELEMENT  ce:alt-e-component    ( ce:link | ( ce:caption+, ce:link? ) )>
```

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  ce:alt-e-component    ( ce:link | ( ce:caption+, ce:link? ) )>
<!ATTLIST  ce:alt-e-component
           id                    ID               #IMPLIED>
```

Description

The element ce:alt-e-component contains an alternative to an electronic component, e.g. a frame of a movie.

Usage

See ce:e-component.

Version history

As from CEP 1.1.2 the caption is repeatable. The id attribute was added in CEP 1.2.0.

ce:alt-name

Declaration

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  ce:alt-name          ( %richstring.data; )*>
```

Description

An alternate name for the author or editor is tagged using ce:alt-name. The attribute xml:lang indicates the language of the alternate name.

Usage

The ce:alt-name element is primarily used to capture the author's name in a language different from the language of the item. This is common in articles written by Asian authors. It is not meant to capture a nickname, a maiden name or a different spelling of a name. It should not contain parentheses nor the alternate name as an image.

XML

```
<ce:author-group id="aug3">
  <ce:author id="au5"
    author-id="S0042682216902241-08ba49ba0a77935e83f9ae9729ebe981">
    <ce:surname>Jin</ce:surname>
    <ce:given-name>Chao</ce:given-name>
    <ce:alt-name>&#x9773; &#x8D85;</ce:alt-name>
  </ce:author>
</ce:author-group>
```

Presentation

Jin Chao (靳 超)

Rendering notes

The ce:alt-name generates parentheses.

Version history

ce:alt-name was added in CEP 1.2.0.

See also

ce:author

ce:alt-subtitle

Declaration

Model (CEPs 1.1.0–1.1.4)

```
<!ELEMENT  ce:alt-subtitle       ( %textfn.data; )*>
<!ATTLIST  ce:alt-subtitle
           xml:lang              %language;        #REQUIRED>
```

Model (CEPs 1.1.5, 1.1.6)

```
<!ELEMENT  ce:alt-subtitle       ( %textfn.data; )*>
<!ATTLIST  ce:alt-subtitle
           xml:lang              %iso639;          #REQUIRED>
```

Model (CEPs 1.2.0, 1.4.0)

```
<!ELEMENT  ce:alt-subtitle       ( %textfn.data; )*>
<!ATTLIST  ce:alt-subtitle
           id                    ID                #IMPLIED
           xml:lang              %iso639;          #REQUIRED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:alt-subtitle       ( %textfn.data; )*>
<!ATTLIST  ce:alt-subtitle
           id                    ID                #IMPLIED
           xml:lang              %iso639;          #REQUIRED>
```

Description

The element ce:alt-subtitle contains the subtitle of an article, chapter, or other item.

Usage

The element ce:alt-subtitle is used to capture the subtitle of an item, e.g. a journal article or book chapter, in an alternative language. It has one mandatory attribute xml:lang, which specifies the language of the alternative title. See ISO 639 set of entities (p. 192) for an overview of the allowed language codes.

For more information about subtitles, see ce:subtitle.

XML

```
<ce:title id="t1">The Common Element Pool</ce:title>
<ce:subtitle id="st2">A modular approach to DTD design</ce:subtitle>
<ce:alt-title xml:lang="de">Der Pool der gemeinsamen
   Elemente</ce:alt-title>
<ce:alt-subtitle xml:lang="de">Eine modulare Weise des DTD
  Entwurfs</ce:alt-subtitle>
```

Version history

In DTDs prior to DTD 5.0, the element sbt fulfilled the function of both ce:subtitle and ce:alt-subtitle; the language was specified in the parent atl element. In CEP 1.1.1 the value it was added to parameter entity %language;. As of CEP 1.1.5, all languages contained in %iso639; are allowed. Attribute id was added in CEP 1.2.0. In CEP 1.5.0 entity %math; was added to %textfn.data;.

See also

ce:alt-title, ce:subtitle, ce:title

ce:alt-text

Declaration

Model (CEPs 1.4.0–1.6.0)

```
<!ELEMENT  ce:alt-text          ( %string.data; )>
<!ATTLIST  ce:alt-text
           id                   ID              #IMPLIED
           role                 CDATA           #IMPLIED>
```

Description

The element ce:alt-text contains a text equivalent for an image, audio file, etc.

Usage

The element ce:alt-text is used to capture an accurate description of non-text content like images and audio files. It can be used to populate HTML's alt attribute.

ce:alt-text has two optional attributes. Attribute id can be used to identify the element. Attribute role can be used to assign a specific role. The following values for role have been defined:

- short for a short (30 words or less) description,
- long for a long description.

There must be one ce:alt-text with role value short and only one ce:alt-text for every role value. The attribute role must be populated.

XML

```
<ce:figure id="f055">
 ...
 <ce:alt-text id="at070" role="short">Painting by John William
  Waterhouse, 'The lady of Shalott', 1888.</ce:alt-text>
  ...
</ce:figure>
```

Version history

This element was added in CEP 1.4.0.

See also

ce:figure, ce:e-component, ce:table, ce:textbox, ce:inline-figure

ce:alt-title

Declaration

Model (CEPs 1.1.0–1.1.4)

```
<!ELEMENT  ce:alt-title          ( %textfn.data; )*>
<!ATTLIST  ce:alt-title
           xml:lang              %language;        #REQUIRED>
```

Model (CEPs 1.1.5, 1.1.6)

```
<!ELEMENT  ce:alt-title          ( %textfn.data; )*>
<!ATTLIST  ce:alt-title
           xml:lang              %iso639;          #REQUIRED>
```

Model (CEPs 1.2.0, 1.4.0)

```
<!ELEMENT  ce:alt-title          ( %textfn.data; )*>
<!ATTLIST  ce:alt-title
           id                    ID                #IMPLIED
           xml:lang              %iso639;          #REQUIRED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:alt-title          ( %textfn.data; )*>
<!ATTLIST  ce:alt-title
           id                    ID                #IMPLIED
           xml:lang              %iso639;          #REQUIRED>
```

Description

The element ce:alt-title contains a title of an article, chapter, or other item, in an alternative language.

Usage

The element ce:alt-title is used to capture a title in a language different from the language of the item; it occurs one or more times within its parent element. It has one mandatory attribute xml:lang, which specifies the language of the alternative title. See ISO 639 set of entities (p. 192) for an overview of the allowed language codes.

XML

```
<ce:title id="t1">The Common Element Pool (CEP)</ce:title>
<ce:alt-title xml:lang="fr">Le Dépôt des Eléments Communs
  (DEC)</ce:alt-title>
```

Version history

In DTDs prior to DTD 5.0, the element atl fulfilled the function of both ce:title and ce:alt-title; moreover, it contained the subtitle within it. In CEP 1.1.1 the value it was added to parameter entity %language;. As of CEP 1.1.5 the complete list of languages contained in %iso639; can be used. Attribute id was added in CEP 1.2.0. In CEP 1.5.0 entity %math; was added to %textfn.data;.

See also

ce:alt-subtitle, ce:subtitle, ce:title

ce:anchor

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:anchor            ( %richstring.data; )*>
<!ATTLIST  ce:anchor
           id                   ID                #REQUIRED
           role                 CDATA             #IMPLIED>
```

Description

The element ce:anchor is a piece of text that can be the target of a cross-reference.

Usage

An anchor is a (possibly empty) piece of text that can be the target of a cross-reference. It is similar to <A NAME="..."> in HTML.

Anchor is special because it may have empty content, and it is an element referred without possessing a ce:label element.

XML

```
<ce:anchor id="anc1">CH<ce:inf>3</ce:inf>C<ce:glyph
  name="tbnd6"/>N (<ce:bold>23</ce:bold>)</ce:anchor>
...
a solution containing 20mmol of
<ce:cross-ref id="c4" refid="anc1"><ce:bold>23</ce:bold></ce:cross-ref>
```

The attribute role can be used to attach a certain meaning to the anchor. Currently no roles have been defined.

Light reading

ce:anchor may not be used in CONTENTS-ENTRY-ONLY, HEAD-ONLY or HEAD-AND-TAIL files.

ce:appendices

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:appendices        ( ce:section+ )>
<!ATTLIST  ce:appendices
           view                 %view;           'all'>
```

Description

The element ce:appendices contains the appendix matter (consisting of one or more appendices, each a ce:section) of a document.

XML

```
<ce:appendices>
  <ce:section id="app1">
    <ce:label>Appendix A</ce:label>
    <ce:section-title id="st76">Answers to the exercises</ce:section-title>
    ...
  </ce:section>
  <ce:section id="app2">
    <ce:label>Appendix B</ce:label>
    <ce:section-title id="st77">Basic skills</ce:section-title>
    ...
  </ce:section>
</ce:appendices>
```

Presentation

Appendix A. Answers to the exercises

...

Appendix B. Basic skills

...

XML

```
<ce:appendices>
  <ce:section id="app1e" view="extended">
    <ce:label>Appendix A</ce:label>
    <ce:section-title id="st43">Supplementary data</ce:section-title>
    <ce:para id="p90">Supplementary data associated with this
      article ...
  </ce:section>
  <ce:section id="app1cs" view="compact-standard">
    <ce:label>Appendix A</ce:label>
    <ce:section-title id="st44">Supplementary data</ce:section-title>
    <ce:para id="p91">This appendix contains background data of
      our experiment in the form of four spreadsheets.
      ...
  </ce:section>
</ce:appendices>
```

Presentation

Appendix A. Supplementary data

Supplementary data associated with this article can be found in the online version, at doi:10.1016/j.endend.2003.07.001.

Explanation

The above presentation is the compact-standard version.

Version history

The `view` attribute was added in CEP 1.1.0.

See also

`ce:section`

ce:article-footnote

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:article-footnote   ( ce:label?, ce:note-para+ )>
```

Model (CEPs 1.1.6–1.6.0)

```
<!ELEMENT  ce:article-footnote   ( ce:label?, ce:note-para+ )>
<!ATTLIST  ce:article-footnote
           role                  CDATA            #IMPLIED>
```

Description

The element ce:article-footnote is used to capture “article footnotes”. These are footnotes that are commonly displayed at the title, and that contain information relevant to the whole article. Important information that must be presented with any rendering of the article, such as acknowledgment of grants, is usually the content of the ce:article-footnote.

Usage

Each article footnote is a separate ce:article-footnote which consists of the footnote symbol in ce:label and a sequence of note paragraphs, ce:note-para.

XML

```
<ce:article-footnote>
  <ce:label>&z.star;</ce:label>
  <ce:note-para id="np67">An earlier version of this article
    appeared in ...</ce:note-para>
</ce:article-footnote>
<ce:article-footnote>
  <ce:label>&z.star;&z.star;</ce:label>
  <ce:note-para id="np68">This work was supported by NSF NYI grant
    CCR-9457806.</ce:note-para>
</ce:article-footnote>
```

Version history

Prior to DTD 5.0, the element was called atlfn. Then it did not contain a separate element for the footnote label. The role attribute was added in CEP 1.1.6.

ce:article-number

Declaration

Model (CEPs 1.4.0–1.6.0)

```
<!ELEMENT  ce:article-number     ( %string.data; )*>
```

Description

The element ce:article-number is used to capture an additional article number of the item.

Usage

Apart from the AID (article ID, captured with element aid), an article can have an additional article number. This is captured with ce:article-number. It is meant for use in citations and could become part of the article's DOI.

Figure 8 (p. 85) shows the use of article numbers in a serial issue.

Version history

This element was added in CEP 1.4.0.

See also

aid, ce:include-item, sb:article-number

ce:associated-resource

Declaration

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:associated-resource( ce:inter-ref )>
```

Description

The element ce:associated-resource is used to create a link between a document and its associated resources.

Usage

Many documents are supported by research data. In order to create a link between the document and its associated research data, the element ce:associated-resource is provided. It contains one subelement, ce:inter-ref, which is the actual link. The content of ce:inter-ref may not be empty. The linking role research-data is to be used.

XML

```
<ce:associated-resource>
  <ce:inter-ref id="interref1"
    xlink:role="http://www.elsevier.com/xml/linking-roles/research-data"
    xlink:href="doi:10.17632/xwj98nb39r.1">
    M. Oguro, S. Imahiro, S. Saito, T. Nakashizuka, Mortality data for
    Japanese oak wilt disease and surrounding forest compositions,
    Mendeley Data, v1, 2015,
    https://doi.org/10.17632/xwj98nb39r.1</ce:inter-ref>
</ce:associated-resource>
```

Version history

This element was introduced in CEP 1.5.0.

See also

ce:inter-ref

ce:author

Declaration

Model (CEPs 1.1.0–1.1.1)

```
<!ELEMENT  ce:author            ( ce:initials?, ce:indexed-name?,
                                  ce:degrees?, %name;, ce:degrees?,
                                  ce:ranking?, ce:roles?, ce:cross-ref*,
                                  ce:e-address*, ce:link? )>
<!ATTLIST  ce:author
           id                   ID                #IMPLIED
           role                 CDATA             #IMPLIED
           author-id            CDATA             #IMPLIED
           biographyid          IDREF             #IMPLIED>
```

Model (CEPs 1.1.2–1.1.6)

```
<!ELEMENT  ce:author            ( ce:initials?, ce:indexed-name?,
                                  ce:degrees?, %name;, ce:degrees?,
                                  ce:ranking?, ce:roles?, ( %cross-
                                  ref; )*, ce:e-address*, ce:link? )>
<!ATTLIST  ce:author
           id                   ID                #IMPLIED
           role                 CDATA             #IMPLIED
           author-id            CDATA             #IMPLIED
           biographyid          IDREF             #IMPLIED>
```

Model (CEPs 1.2.0, 1.4.0)

```
<!ELEMENT  ce:author            ( ce:initials?, ce:indexed-name?,
                                  ce:degrees?, %name;, ce:degrees?,
                                  ce:ranking?, ce:roles?, ( %cross-
                                  ref; )*, ce:e-address*, ce:link? )>
<!ATTLIST  ce:author
           id                   ID                #IMPLIED
           role                 CDATA             #IMPLIED
           orcid                CDATA             #IMPLIED
           author-id            CDATA             #IMPLIED
           biographyid          IDREF             #IMPLIED>
```

Model (CEP 1.5.0)

```
<!ELEMENT  ce:author            ( ce:initials?, ce:indexed-name?,
                                  ce:degrees?, %name;, ce:degrees?,
                                  ce:ranking?, ce:roles?, ce:contributor-
                                  role*, ( %cross-ref; )*, ce:e-
                                  address*, ce:link? )>
<!ATTLIST  ce:author
           id                   ID                #IMPLIED
           role                 CDATA             #IMPLIED
           orcid                CDATA             #IMPLIED
           author-id            CDATA             #IMPLIED
           biographyid          IDREF             #IMPLIED>
```

Model (CEP 1.6.0)

```
<!ELEMENT  ce:author            ( ce:initials?, ce:indexed-name?,
                                  ce:degrees?, %name;, ce:degrees?,
                                  ce:ranking?, ce:roles?, ce:contributor-
                                  role*, ce:alias?, ( %cross-ref; )*,
                                  ce:e-address*, ce:link? )>
```

```
<!ATTLIST  ce:author
           id                  ID              #IMPLIED
           role                CDATA           #IMPLIED
           orcid               CDATA           #IMPLIED
           author-id           CDATA           #IMPLIED
           biographyid         IDREF           #IMPLIED>
```

Description

Each author of the item is captured using ce:author.

Usage

The element ce:author consists of optional initials, if these cannot be inferred from the first name (ce:initials), an optional name under which the author should appear in an index (ce:indexed-name), optional degrees (ce:degrees), a possible first (given) name (ce:given-name) followed or preceded by a surname (family name, ce:surname), an optional alternate name (ce:alt-name), an optional generation indication (ce:suffix), more optional degrees (ce:degrees), an optional indication of the importance of the author (ce:ranking), optionally the roles the author has (ce:roles), optionally the role(s) the author has performed in the creation of the work (ce:contributor-role), an alias (ce:alias), cross-references to the author's affiliation(s) and to author footnotes (ce:cross-ref), a number of electronic addresses of the author (ce:e-address), and a link to a picture of the author (ce:link).

For more details, see these subelements. A ce:cross-ref should refer to a ce:footnote or a ce:correspondence in a ce:author-group (possibly different from the current one). The surname may precede the first name; the order of these elements within ce:author determines the order in which they must be rendered.

The ce:author element has an attribute biographyid which is used to refer to a biography (ce:biography) of the author.

The attribute id can be used to link to the author. The attribute author-id contains a (globally) unique identification of the author *within* the article. It is constructed from the PII, the given name, the surname, the suffix and the alternate name. Attribute orcid on the other hand contains a unique identification of the author coming from a global author database: the ORCID (Open Research & Contributor ID).

In some cultures, people may have just a single name, which is treated as the surname. This may contradict how the author's culture feels about this, but the reason is purely functional: what matters is that an author is indexed under the surname; the first name may be abbreviated in the index or the running heads.

If the author is not a person, e.g. an institution or a government body, ce:author is also used, and the name is captured within ce:surname. This should not be confused with a named group of scientists, i.e. a collaboration, which is captured using ce:collaboration.

XML

```
<ce:author id="au01"
  author-id="S0191260715900341-c1bf40358a2319781b18a1d5e6e8afb7">
  <ce:surname>Liszot</ce:surname>
  <ce:given-name>Frenc</ce:given-name>
</ce:author>
```

```
<ce:author id="au02"
  author-id="S0191260715900341-cd7d17c4082e294ae78a2325f69e95dc">
  <ce:surname>Gavindo</ce:surname>
</ce:author>
<ce:author id="au03"
  author-id="S0191260715900341-ede885dec696394a6f53c8c490f0641c">
  <ce:surname>National Board of Transport Safety</ce:surname>
</ce:author>
```

XML

```
<ce:author id="au04" orcid="1234-5678-4321-8765"
  author-id="S9999999416205679-61dfc33e835f8719c0a615d6e476b6f4">
  <ce:degrees>Prof.</ce:degrees>
  <ce:given-name>Elizabeth M.C.</ce:given-name>
  <ce:surname>Square</ce:surname>
  <ce:suffix>Sr.</ce:suffix>
  <ce:degrees>D.Phil. (Oxon)</ce:degrees>
  <ce:ranking>*</ce:ranking>
  <ce:roles>Chair, Royal Commission for Biomedical Research</ce:roles>
  <ce:cross-ref id="cr1" refid="aff1"><ce:sup>a</ce:sup></ce:cross-ref>
  <ce:cross-ref id="cr2" refid="aff5"><ce:sup>e</ce:sup></ce:cross-ref>
  <ce:cross-ref id="cr3" refid="fn2"><ce:sup>2</ce:sup></ce:cross-ref>
  <ce:e-address id="ea1">emc.square@hotmail.com</ce:e-address>
  <ce:link locator="fx1" xlink:type="simple" xlink:role=
    "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
    xlink:href="pii:S0273122315003388/fx1"/>
</ce:author>
```

If the author is deceased, this cannot be indicated within `ce:author`; a footnote following the author is to be used.

If the author has only supplied initials instead of a full given name, then these are also captured in `ce:given-name`.

XML

```
<ce:author id="au05"
  author-id="S0370269312908588-5d06ac6ab190886e69e7480782915445">
  <ce:given-name>P.A.</ce:given-name>
  <ce:surname>Orshev</ce:surname>
</ce:author>
```

In order to help applications to render the correct initials from a given name, the element `ce:initials` has been provided. If (and only if) the initials of the author cannot be inferred from the `ce:given-name` element by taking the first letter of each name, preserving dashes, the subelement `ce:initials` is used to capture the author's correct initials. It is used for rendering author names with initials instead of full given names, e.g. in tables of contents and in running heads. Note that `ce:initials` does not replace `ce:given-name`.

XML

```
<ce:author id="au06" biographyid="bio2"
  author-id="S0022369711903813-6c5d1496cf5635803b165eabf8a3cd26">
  <ce:initials>Ph.E.</ce:initials>
  <ce:given-name>Philippe E.</ce:given-name>
  <ce:surname>Driver</ce:surname>
</ce:author>
```

In order to help applications to correctly alphabetize a name, the element `ce:indexed-`

name has been provided. If (and only if) it is common to alphabetize the name at a place which cannot be inferred from the ce:surname, the subelement ce:indexed-name is used. This is only for very exceptional cases, because it is assumed that indexing programs can cope with all names with accented characters.

XML

```
<ce:author id="au07"
  author-id="S1350448712902784-1bc52f89ab2590e9d9893a705eb5ad71">
  <ce:indexed-name>Gamma-Corporation</ce:indexed-name>
  <ce:surname>&Gamma;-Corporation</ce:surname>
</ce:author>
```

The element ce:link can be used to add a picture of the author. This should not be confused with a picture of the author within the biography.

For anonymous authors the value anonymous for attribute role is defined. No other values are defined.

XML

```
<ce:author id="au08" role="anonymous"
  author-id="S1350448712902784-db66cd965816a576334ab39de4840767">
  <ce:surname>Anonymous</ce:surname>
</ce:author>
```

Version history

Prior to DTD 5.0, this element was called au; it did not contain the initials or indexed name, cross-references and the electronic addresses at this level.

The author-id attribute was added in CEP 1.1.0. Parameter entity %cross-ref; was introduced in CEP 1.1.2. In CEP 1.2.0 the attribute orcid was added, while element ce:alt-name was added to parameter entity %name;. Element ce:contributor-role was added in CEP 1.5.0.

Element ce:alias was added in CEP 1.6.0.

See also

ce:author-group, ce:collaboration

ce:author-group

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:author-group      ( ( ce:collaboration | ce:author )+,
                                  ce:affiliation*, ce:correspondence*,
                                  ce:footnote* )>
```

Model (CEP 1.1.6)

```
<!ELEMENT  ce:author-group      ( ( ce:collaboration | ce:author
                                  | ce:text )+, ce:affiliation*,
                                  ce:correspondence*, ce:footnote* )>
<!ATTLIST  ce:author-group
           role                 CDATA            #IMPLIED>
```

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  ce:author-group      ( ( ce:collaboration | ce:author
                                  | ce:text )+, ce:affiliation*,
                                  ce:correspondence*, ce:footnote* )>
<!ATTLIST  ce:author-group
           id                   ID               #IMPLIED
           role                 CDATA            #IMPLIED>
```

Description

The element ce:author-group contains authors and their affiliations.

Usage

The element ce:author-group is an important part of the head of an item. It contains a group of authors and/or collaborations with associated information. Some document types allow more than one author group; this is needed for implicit author–affiliation couplings (see below).

The element ce:author-group is also used in a structured list of editors of an issue, ce:editors, to capture a group of editors.

Each author group consists of a sequence of authors (ce:author) and/or collaborations (ce:collaboration), possibly interspersed with free text (ce:text). This is followed by a list of affiliations (ce:affiliation), correspondence information (ce:correspondence) and footnotes (ce:footnote).

The affiliation list contains all the affiliations in this author group. Each author or collaboration may either be coupled to several affiliations, or all authors share the same uncoupled affiliations. The authors and/or collaborations on the one hand and affiliations on the other hand can be related to each other in two ways.

- *Explicit.* The relationship between authors and affiliations is indicated by adding a ce:cross-ref element within ce:author, referring to an id of an affiliation. In this case, authors always require a ce:cross-ref to an affiliation; collaborations require an affiliation if there are no authors in the same author group. When using explicit coupling, it is allowed to have affiliations without associated authors or collaborations. It is not allowed to couple an author with an affiliation in another author group.

- *Implicit.* All authors in an author group are related to all affiliations present in that author group. Typically, but not necessarily, there will be only one affiliation in the author group. The authors do not have a ce:cross-ref element, and the affiliations do not need a ce:label subelement.

Especially for the editors of an issue it may occur that some, or usually all, editors are listed without affiliation. In such a case it is important not to create unnecessary ce:author-groups. The following rule must be applied: consecutive authors or editors without an affiliation must be captured in a single ce:author-group.

The following example shows *explicit* author–affiliation coupling.

XML

```
<ce:author-group id="aug1">
  <ce:author id="au1" biographyid="vt1"
    author-id="S0375960116912179-c91dc22919067cc8e50bfc3217b08018">
    <ce:given-name>N.N.</ce:given-name>
    <ce:surname>Jiemela</ce:surname>
    <ce:ranking>*</ce:ranking>
    <ce:cross-ref id="cr1" refid="aff1"><ce:sup>a</ce:sup></ce:cross-ref>
    <ce:cross-ref id="cr2" refid="fn1"><ce:sup>1</ce:sup></ce:cross-ref>
  </ce:author>
  <ce:author id="au2" biographyid="vt2"
    author-id="S0375960116912179-5af567f40d81d956d85d5ae703f9ff4d">
    <ce:given-name>R.K.</ce:given-name>
    <ce:surname>Reenivasan</ce:surname>
    <ce:cross-ref id="cr3" refid="aff1"><ce:sup>a</ce:sup></ce:cross-ref>
    <ce:cross-ref id="cr4" refid="aff2"><ce:sup>b</ce:sup></ce:cross-ref>
  </ce:author>
  <ce:author id="au3"
    author-id="S0375960116912179-abe148d56829bcb51054527ae12f689b">
    <ce:given-name>J.R.</ce:given-name>
    <ce:surname>Connelly</ce:surname>
    <ce:cross-ref id="cr5" refid="aff1"><ce:sup>a</ce:sup></ce:cross-ref>
    <ce:cross-ref id="cr6" refid="cor1">&#x0204E;</ce:cross-ref>
    <ce:e-address id="ea1">russ@vortex.uoregon.edu</ce:e-address>
  </ce:author>
  <ce:affiliation id="aff1"
    affiliation-id="S0375960116912179-b4618bb95283e41c26f503c13da2201a">
    <ce:label>a</ce:label>
    <ce:textfn>Cryogenic Helium Turbulence Laboratory,
      Department of Physics, University of Oregon, Eugene, OR
      97403, USA</ce:textfn>
    <sa:affiliation>
      <sa:organization>Cryogenic Helium Turbulence
        Laboratory</sa:organization>
      <sa:organization>Department of Physics</sa:organization>
      <sa:organization>University of Oregon</sa:organization>
      <sa:city>Eugene</sa:city>
      <sa:state>OR</sa:state>
      <sa:postal-code>97403</sa:postal-code>
      <sa:country>USA</sa:country>
    </sa:affiliation>
  </ce:affiliation>
  <ce:affiliation id="aff2"
```

```
      affiliation-id="S0375960116912179-3376d03e3ad29b77fcb595c2842d6011">
      <ce:label>b</ce:label>
      <ce:textfn>Mason Laboratory, Yale University, New Haven, CT
        06520-8286, USA</ce:textfn>
      <sa:affiliation>
        <sa:organization>Mason Laboratory</sa:organization>
        <sa:organization>Yale University</sa:organization>
        <sa:city>New Haven</sa:city>
        <sa:state>CT</sa:state>
        <sa:postal-code>06520-8286</sa:postal-code>
        <sa:country>USA</sa:country>
      </sa:affiliation>
    </ce:affiliation>
    <ce:correspondence id="cor1">
      <ce:label>&#x0204E;</ce:label>
      <ce:text>Correspondence and requests for materials should be
        addressed to J.R. Connelly.</ce:text>
    </ce:correspondence>
    <ce:footnote id="fn1">
      <ce:label>1</ce:label>
      <ce:note-para id="np1">Supported by NSF Grant ...</ce:note-para>
    </ce:footnote>
  </ce:author-group>
```

Presentation

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⋮

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[1] Supported by NSF Grant ...

The following example is an example of *implicit* author–affiliation coupling. Unlike the previous example, there are no labels “a” and “b” that make the coupling explicit. All the authors in the author group belong to the affiliation in this author group.

XML

```
  <ce:author-group id="aug2">
    <ce:author id="au4"
      author-id="S0925231298000939-62fceb0fd8383e505a2d5a41794fbfba">
      <ce:given-name>Hirofumi</ce:given-name>
      <ce:surname>Hirose</ce:surname>
    </ce:author>
    <ce:author id="au5"
      author-id="S0925231298000939-f6914667dab3b05d1aa0ff0d40028fd1">
      <ce:given-name>Akira</ce:given-name>
      <ce:surname>Onishi</ce:surname>
    </ce:author>
    <ce:affiliation id="aff3"
      affiliation-id="S0925231298000939-5cade0ad91b946bd3ccceeddd1375da5">
      <ce:textfn>Research Center for Advanced Science and Technology
        (RCAST), The University of Tokyo, 4-6-1 Komaba, Meguro-ku,
        Tokyo 153, Japan</ce:textfn>
      <sa:affiliation>
```

```
        <sa:organization>Research Center for Advanced Science and
          Technology (RCAST)</sa:organization>
        <sa:organization>The University of Tokyo</sa:organization>
        <sa:address-line>4-6-1 Komaba</sa:address-line>
        <sa:address-line>Meguro-ku</sa:address-line>
        <sa:city>Tokyo</sa:city>
        <sa:postal-code>153</sa:postal-code>
        <sa:country>Japan</sa:country>
      </sa:affiliation>
    </ce:affiliation>
  </ce:author-group>
```

Presentation

Hirofumi Hirose and Akira Onishi
Research Center for Advanced Science and Technology (RCAST),
The University of Tokyo, 4-6-1 Komaba, Meguro-ku, Tokyo 153, Japan

The element `ce:text` is an elementary way to add text before, in between and after author names. It is typically used for an “on behalf of” phrase. Other examples are “on behalf of 50 signatories”, “on behalf of the Editorial Board”, “on behalf of 1234 Canadian physicians”, etc.

XML

```
<ce:author-group id="aug3">
  <ce:author id="au6"
    author-id="S0022231316904393-64eeb5dc989242a8b7bb90a7ccab4943">
    <ce:given-name>A.</ce:given-name>
    <ce:surname>Jones-Glynn</ce:surname>
    <ce:cross-ref id="cr1" refid="aff1"><ce:sup>a</ce:sup></ce:cross-ref>
  </ce:author>
  <ce:text>on behalf of the</ce:text>
  <ce:collaboration id="cl1"
    collaboration-id="S0022231316904393-1c420a6e6e082ad150c5fc86b7b5e3e4">
    <ce:text>Colorectal Cancer Annual Consensus Meeting Group</ce:text>
  </ce:collaboration>
  <ce:affiliation id="aff4"
    affiliation-id="S0022231316904393-403635e036802d94c20ec775d7bb1249">
    <ce:label>a</ce:label>
    <ce:textfn>Mount Vernon Cancer Centre, Rickmansworth Road,
      Northwood HA6 2RN, UK</ce:textfn>
    <sa:affiliation>
      <sa:organization>Mount Vernon Cancer Centre</sa:organization>
      <sa:address-line>Rickmansworth Road</sa:address-line>
      <sa:city>Northwood</sa:city>
      <sa:postal-code>HA6 2RN</sa:postal-code>
      <sa:country>UK</sa:country>
    </sa:affiliation>
  </ce:affiliation>
</ce:author-group>
```

Presentation

A. Jones-Glynn[a] on behalf of the Colorectal Cancer Annual Consensus Meeting Group
[a] *Mount Vernon Cancer Centre, Rickmansworth Road, Northwood HA6 2RN, UK*

XML

```
<ce:author-group id="aug10">
  <ce:author id="au10"
```

```
      author-id="S1474442214702005-f88994e924093cd2a6a4784e41620462">
      <ce:given-name>Kazunori</ce:given-name>
      <ce:surname>Tanizaki</ce:surname>
      <ce:cross-ref id="cr10" refid="a1"><ce:sup>a</ce:sup></ce:cross-ref>
    </ce:author>
    <ce:text>on behalf of all authors</ce:text>
    <ce:affiliation id="a1"
      affiliation-id="S1474442214702005-39f7671c7f82bbc8235c38f54f8e630e">
      <ce:label>a</ce:label>
      <ce:textfn>Department of Cerebrovascular Medicine, National
        Cerebral and Cardiovascular Center, Suita, Osaka, Japan</ce:textfn>
      <sa:affiliation>
        <sa:organization>Department of Cerebrovascular
          Medicine</sa:organization>
        <sa:address-line>National Cerebral and Cardiovascular
          Center</sa:address-line>
        <sa:city>Suita</sa:city>
        <sa:state>Osaka</sa:state>
        <sa:country>Japan</sa:country>
      </sa:affiliation>
    </ce:affiliation>
  </ce:author-group>
```

Presentation

Kazunori Tanizaki[a] on behalf of all authors

[a] *Department of Cerebrovascular Medicine, National Cerebral and Cardiovascular Center, Suita, Osaka, Japan*

Version history

In CEP 1.1.6, subelement `ce:text` was added to the content model and the attribute `role` was added. The `id` attribute was added in CEP 1.2.0.

See also

`ce:editors`

ce:bibliography

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:bibliography      ( ce:section-title, ce:bibliography-
                                  sec+ )>
<!ATTLIST  ce:bibliography
           id                   ID                #IMPLIED
           role                 CDATA             #IMPLIED
           view                 %view;            'all'>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:bibliography      ( ce:section-title, ce:intro?,
                                  ce:bibliography-sec+ )>
<!ATTLIST  ce:bibliography
           id                   ID                #IMPLIED
           role                 CDATA             #IMPLIED
           view                 %view;            'all'>
```

Description

The element ce:bibliography is used for the reference list of a document.

Usage

The element ce:bibliography contains bibliographic references of the document. It can consist of a brief introduction (ce:intro) and several subsections, ce:bibliography-sec. Often there is just one reference list, in which case the bibliography contains only one ce:bibliography-sec without a ce:section-title. Each ce:bibliography-sec except the first must have a ce:section-title, for the first this is optional.

The subelement ce:section-title of ce:bibliography contains the name of the bibliography, e.g. "References" or "Bibliography". Subelement ce:intro contains a short introduction to the bibliography. It can also contain a simple statement like "Full reference list available online…".

Each ce:bibliography-sec contains one or more bibliographic references, ce:bib-reference. Each ce:bib-reference must be referred to by means of ce:cross-ref. References which are not being referred to, may find a place in the further-reading list, ce:further-reading.

Version history

Prior to DTD 5.0, the element bibl contained the bibliographic references. It is comparable to ce:bibliography-sec, and ce:bibliography is a container of the bibliography sections. The view attribute was added in CEP 1.1.0. Subelement ce:intro was added in CEP 1.5.0.

Light reading

ce:bibliography is part of HEAD-AND-TAIL material.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

ce:bibliography-sec

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:bibliography-sec   ( ce:section-title?, ce:bib-
                                   reference+ )>
<!ATTLIST  ce:bibliography-sec
           id                    ID              #IMPLIED
           role                  CDATA           #IMPLIED>
```

Model (CEPs 1.1.6, 1.2.0)

```
<!ELEMENT  ce:bibliography-sec   ( ce:section-title?, ce:bib-
                                   reference+ )>
<!ATTLIST  ce:bibliography-sec
           id                    ID              #IMPLIED
           role                  CDATA           #IMPLIED
           view                  %view;          'all'>
```

Model (CEPs 1.4.0, 1.5.0)

```
<!ELEMENT  ce:bibliography-sec   ( ce:section-title?, ce:bib-reference+,
                                   ce:bibliography-sec* )>
<!ATTLIST  ce:bibliography-sec
           id                    ID              #IMPLIED
           role                  CDATA           #IMPLIED
           view                  %view;          'all'>
```

Model (CEP 1.6.0)

```
<!ELEMENT  ce:bibliography-sec   ( ce:section-title?, ce:bib-reference*,
                                   ce:bibliography-sec* )>
<!ATTLIST  ce:bibliography-sec
           id                    ID              #IMPLIED
           role                  CDATA           #IMPLIED
           view                  %view;          'all'>
```

Description

The element ce:bibliography-sec is a section within the bibliographic references. Bibliography sections can be nested one level deep.

Usage

See ce:bibliography.

Version history

The view attribute was added in CEP 1.1.6. In CEP 1.4.0 it became possible to nest the ce:bibliography-sec element.

In CEP 1.6.0 the model was changed to allow for a ce:bibliography-sec containing only ce:bibliography-secs.

ce:bib-reference

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:bib-reference      ( ce:label, ( ce:note | ( ( sb:reference
                                   | ce:other-ref )+, ce:note? ) ) )>
<!ATTLIST  ce:bib-reference
           id                    ID                #REQUIRED>
```

Model (CEPs 1.1.6–1.5.0)

```
<!ELEMENT  ce:bib-reference      ( ce:label, ( ce:note | ( ( sb:reference
                                   | ce:other-ref )+, ce:note? ) ) )>
<!ATTLIST  ce:bib-reference
           id                    ID                #REQUIRED
           role                  CDATA             #IMPLIED>
```

Model (CEP 1.6.0)

```
<!ELEMENT  ce:bib-reference      ( ce:label, ( ce:note | ( ( ( sb:reference
                                   | ce:other-ref ), ce:source-text? )+,
                                   ce:note? ) ) )>
<!ATTLIST  ce:bib-reference
           id                    ID                #REQUIRED
           role                  CDATA             #IMPLIED>
```

Description

The element ce:bib-reference is used to capture a bibliographic reference within the reference list or within the further-reading section.

Usage

Each entry in a list of bibliographic references (ce:bibliography) or a further-reading list (ce:further-reading) is a ce:bib-reference.

The ce:bib-reference may be either just a ce:note (an endnote), or a sequence of one or more bibliographic references followed by a ce:note. The core of each bibliographic reference is a structured reference (sb:reference) or an unstructured reference (ce:other-ref).

The original text of the reference can be captured in element ce:source-text.

The ce:bib-reference must have an id attribute and a ce:label subelement. For numbered references, the ce:label contains the number (no punctuation is generated by this instance of ce:label) and for name/date references it contains name and date in the way the reference is referred to in the text without parentheses. Several possible formats are shown below. Note in particular the full stop in the second example and the “1999a” in the fifth example.

XML

```
<ce:bib-reference id="bib37"><ce:label>[37]</ce:label>
<ce:bib-reference id="bib37"><ce:label>37.</ce:label>
<ce:bib-reference id="bib37"><ce:label>[Go78]</ce:label>
<ce:bib-reference id="bib37"><ce:label>Böhm et al., 1999</ce:label>
<ce:bib-reference id="bib37"><ce:label>Böhm et al., 1999a</ce:label>
```

Name/date references

In case of the name/date referencing style the bibliographic references are printed without a label before the reference, and thus their `ce:label` element is not shown, and may seem irrelevant. However, in name/date references with the same authors and the same year, the "a" and "b" after the year is stored within the `ce:label` element. This is the only place where the "a" or "b" can be found; the `sb:date` does not contain it as it is not a property of the reference but of the document in which the reference appears.

Moreover, some publications may choose to show the `ce:label` element in their presentation. One case in which this happens in almost all applications, is when a reference is one of the targets in a one-to-many cross-reference. In electronic publications such a one-to-many cross-reference may be represented with a "drop-down menu", which is built up via the `ce:label` elements of the targets (see the section Cross-references and the label element, p. 180).

XML

```
<ce:bib-reference id="bib12">
  <ce:label>Sheen, 1999a</ce:label>
  <sb:reference id="sbr1">
    <sb:contribution>
      <sb:authors>
        <sb:author>
          <ce:given-name>J.</ce:given-name>
          <ce:surname>Sheen</ce:surname>
        </sb:author>
      </sb:authors>
      <sb:title>
        <sb:maintitle>C<ce:inf>4</ce:inf> gene expression</sb:maintitle>
      </sb:title>
    </sb:contribution>
    <sb:host>
      <sb:issue>
        <sb:series>
          <sb:title>
            <sb:maintitle>Ann. Rev. Plant Physiol. Plant
              Mol. Biol.</sb:maintitle>
          </sb:title>
          <sb:volume-nr>50</sb:volume-nr>
        </sb:series>
        <sb:date>1999</sb:date>
      </sb:issue>
      <sb:pages>
        <sb:first-page>187</sb:first-page>
        <sb:last-page>217</sb:last-page>
      </sb:pages>
    </sb:host>
  </sb:reference>
</ce:bib-reference>
```

Presentation

Sheen, J., 1999a. C_4 gene expression. Ann. Rev. Plant Physiol. Mol. Biol. 50, 187–217.

Multiple bibliographic references in one *ce:bib-reference* element

It is possible to group more than one bibliographic reference within a ce:bib-reference element. These may be a mixed sequence of structured and unstructured references.

When one or more of the references in the ce:bib-reference element are cited individually, they *all* need to have a ce:label element, and at least the ones cited individually need to have an id attribute. When there is a single reference in a ce:bib-reference element, this single reference (sb:reference or ce:other-ref) is not allowed to have a ce:label element and an id attribute.

For cross-references to a sb:reference element, see the section Cross-references and the label element (p. 180).

XML

```
<ce:bib-reference id="bib1">
  <ce:label>[1]</ce:label>
  <ce:other-ref id="or1">
    <ce:textref>H.P. Nilles, Nucl. Phys. B 499 (1997) 3</ce:textref>
  </ce:other-ref>
  <sb:reference id="sbr2">
    <sb:contribution>
      <sb:authors>
        <sb:author>
          <ce:given-name>T.</ce:given-name>
          <ce:surname>Banks</ce:surname>
        </sb:author>
        <sb:author>
          <ce:given-name>M.</ce:given-name>
          <ce:surname>Dine</ce:surname>
        </sb:author>
      </sb:authors>
    </sb:contribution>
    <sb:host>
      <sb:issue>
        <sb:series>
          <sb:title>
            <sb:maintitle>Nucl. Phys. B.</sb:maintitle>
          </sb:title>
          <sb:volume-nr>479</sb:volume-nr>
          <sb:date>1996</sb:date>
        </sb:series>
      </sb:issue>
      <sb:pages>
        <sb:first-page>173</sb:first-page>
      </sb:pages>
    </sb:host>
  </sb:reference>
</ce:bib-reference>
```

Presentation

[1] H.P. Nilles, Nucl. Phys. B 499 (1997) 3;
T. Banks, M. Dine, Nucl. Phys. B 479 (1996) 173.

XML

```
<ce:bib-reference id="bib2">
  <ce:label>[2]</ce:label>
```

```
      <sb:reference id="bb2a">
        <ce:label>(a)</ce:label>
        <sb:contribution>...
      </sb:reference>
      <ce:other-ref id="or2b"><
        <ce:label>(b)</ce:label>
        <ce:textref>Y. Koide, ...</ce:textref>
      </ce:other-ref>
    </ce:bib-reference>
```

Presentation

[2] (a) A. Szczepaniak, Phys. Rev. D 54 (1996) 1167;
(b) Y. Koide, Z. Phys. C 71 (1996) 459.

With the name/date referencing style, grouping of several `sb:reference` or `ce:other-ref` elements is discouraged.

Version history

Prior to DTD 5.0, this element was called `bib`. The `role` attribute was added in CEP 1.1.6. In CEP 1.6.0 subelement `ce:source-text` was added.

Light reading

In HEAD-AND-TAIL SGML files, `ce:bib-reference`s need not be referred to.

Known bugs, hacks and problems

It is not possible to have a comment to a multiple reference.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

ce:biography

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:biography          ( ce:link?, ce:simple-para+ )>
<!ATTLIST  ce:biography
           id                    ID                #IMPLIED
           view                  %view;            'all'>
```

Model (CEPs 1.1.6–1.6.0)

```
<!ELEMENT  ce:biography          ( ce:link?, ce:simple-para+ )>
<!ATTLIST  ce:biography
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED
           view                  %view;            'all'>
```

Description

Some journals publish short biographies in their articles. The element ce:biography is used for this purpose.

Usage

The biography element ce:biography contains a short biography of a person, mostly the author in the form of one or more "simple" paragraphs, ce:simple-para. It has an id; the link with the author is established through the biographyid attribute of ce:author. It is also possible to link a name in the text to a ce:biography via a ce:cross-ref.

If the biography contains a photograph of the author, the first subelement ce:link is used to reference the file containing the photograph. It is not appropriate to use ce:inline-figure for the photograph.

XML

```
<!ENTITY fx1 SYSTEM "fx1" NDATA IMAGE>
...
<ce:biography id="bio1">
  <ce:link locator="fx1" xlink:type="simple" xlink:role=
    "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
    xlink:href="pii:S0378437115021019/fx1"/>
  <ce:simple-para id="sp58"><ce:bold>Stephen Hawking</ce:bold> holds
    the chair once held by Isaac Newton as Lucasian
    Professor in Mathematics at the University of
    Cambridge...</ce:simple-para>
</ce:biography>
```

In some journals or books there are no biographies, but a picture of each author is displayed near the author's name in the document head. For this, ce:link in ce:author is used.

Version history

Prior to DTD 5.0, this element was called vt. Then it did not contain the ce:link subelement; the graphic file was associated to the biography with an attribute. The view attribute was added in CEP 1.1.0. The role attribute was added in CEP 1.1.6.

ce:bold

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:bold              ( %richstring.data; )*>
```

Description

The element ce:bold is a font changing element (p. 184). It is used to obtain bold.

Usage

XML

```
<ce:bold>This text is in bold</ce:bold>
```

Presentation

This text is in bold

Version history

Prior to DTD 5.0, this element was called b.

See also

For more information see the section on text effects (p. 184). See also ce:cross-out, ce:italic, ce:monospace, ce:sans-serif, ce:small-caps, ce:underline.

ce:br

Declaration

Model (CEPs 1.1.2–1.6.0)

```
<!ELEMENT  ce:br                EMPTY>
```

Description

The element ce:br is used to create an explicit line break.

Usage

If the need arises to indicate an explicit line break ce:br can be used within certain context, e.g. within a table cell.

XML

```
...
<row>
  <entry>Dairy</entry>
  <entry>8 oz milk<ce:br/>8 oz cottage cheese<ce:br/>8 oz ice
    cream<ce:br/>1 oz hard cheese<ce:br/>1 cup yogurt
  </entry>
  <entry>6 servings per day</entry>
  <entry>8 servings per day</entry>
  <entry>10 servings per day</entry>
  <entry>12 servings per day</entry>
</row>
...
```

Presentation

Menu Guidelines

Food group	Serving size	Singleton	Twins	Triples	Quads
Dairy	8 oz milk 8 oz cottage cheese 8 oz ice cream 1 oz hard cheese 1 cup yogurt	6 servings per day	8 servings per day	10 servings per day	12 servings per day
...					

Explanation

The line breaks in the second column are a result of the use of element ce:br whereas the line breaks in columns 3–6 are created by the rendering application. Note that in the above XML example the header rows are omitted for brevity.

Version history

This element was introduced in CEP 1.1.2.

ce:caption

Declaration

Model (CEPs 1.1.0–1.1.1)

```
<!ELEMENT  ce:caption          ( ce:simple-para+ )>
```

Model (CEPs 1.1.2–1.1.5)

```
<!ELEMENT  ce:caption          ( ce:simple-para+ )>
<!ATTLIST  ce:caption
           role                CDATA             #IMPLIED
           xml:lang            %iso639;          #IMPLIED>
```

Model (CEPs 1.1.6–1.6.0)

```
<!ELEMENT  ce:caption          ( ce:simple-para+ )>
<!ATTLIST  ce:caption
           id                  ID                #IMPLIED
           role                CDATA             #IMPLIED
           xml:lang            %iso639;          #IMPLIED>
```

Description

Captions are tagged with ce:caption.

Usage

Figures, tables, e-components and textboxes possess captions, structured with ce:caption, that give a description of the object. A ce:caption consists of one or more simple paragraphs, ce:simple-para.

The attribute xml:lang, with values in the ISO 639 set of entities (p. 192), indicates the language of the caption, by default the language of the document. This is to support publications that publish captions in different languages.

The attribute role allows one to categorize captions. For instance, it makes it possible to mark a caption as “title” and handle it different from ordinary captions. Applications should treat captions with roles unknown to them as ordinary captions, i.e., unknown roles must be ignored. The role must belong to a list validated by the XML validation tools. The following value for role has been defined:

- title is used to mark the caption as the title of the figure, table or textbox.

Version history

The xml:lang and role attributes were added in CEP 1.1.2. The id attribute was added in CEP 1.1.6.

See also

ce:alt-e-component, ce:e-component, ce:figure, ce:table, ce:textbox

ce:chem

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:chem              ( %textfn.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:chem              ( %textfn.data; )*>
```

Description

A displayed chemical formula is captured using ce:chem.

Usage

The element ce:chem is one of the possible subelements of ce:formula. It contains the text of the chemical formula to be displayed. The equation number is separately captured in the ce:label child element of the ce:formula parent.

XML

```
<ce:formula id="ch2">
  <ce:label>(2)</ce:label>
  <ce:chem>TLC (CH<ce:inf>2</ce:inf>C<ce:inf>12</ce:inf>/MeOH):
    <ce:it>R</ce:it><ce:inf>f</ce:inf>=0.45; IR:
    3423 cm<ce:sup>-1</ce:sup> (NH).</ce:chem>
</ce:formula>
```

Inline chemical formulae may be entered as part of the running text, without a special tag.

Version history

Prior to DTD 5.0, both displayed mathematical and displayed chemical formulae were captured in the element fd. In CEP 1.5.0 entity %math; was added to %textfn.data;.

Rendering notes

The content is rendered within the formula area of ce:formula, possibly followed by the equation number.

ce:collab-aff

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:collab-aff        ( %text.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:collab-aff        ( %text.data; )*>
```

Description

The element ce:collab-aff adds an affiliation-like phrase to a collaboration.

Usage

See ce:collaboration.

Version history

In CEP 1.5.0 entity %math; was added to %text.data;.

ce:collaboration

Declaration

Model (CEPs 1.1.0–1.1.1)

```
<!ELEMENT  ce:collaboration      ( ce:indexed-name?, ce:text, ce:cross-
                                   ref*, ce:collab-aff? )>
<!ATTLIST  ce:collaboration
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED>
```

Model (CEPs 1.1.2–1.1.6)

```
<!ELEMENT  ce:collaboration      ( ce:indexed-name?, ce:text, ( %cross-
                                   ref; )*, ce:collab-aff? )>
<!ATTLIST  ce:collaboration
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED>
```

Model (CEPs 1.2.0, 1.4.0)

```
<!ELEMENT  ce:collaboration      ( ce:indexed-name?, ce:text, ( %cross-
                                   ref; )*, ce:collab-aff?, ce:e-
                                   address*, ce:author-group* )>
<!ATTLIST  ce:collaboration
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:collaboration      ( ce:indexed-name?, ce:text, ( %cross-
                                   ref; )*, ce:collab-aff?, ce:e-
                                   address*, ce:author-group* )>
<!ATTLIST  ce:collaboration
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED
           collaboration-id      CDATA             #IMPLIED>
```

Description

The name of a collaboration is captured in the ce:collaboration element.

Usage

A collaboration denotes a group of authors who present themselves under a common name: the collaboration name. The element ce:collaboration is used to capture such a collaboration. It contains an optional name under which the collaboration should appear in an index (ce:indexed-name), a container for the actual name (ce:text), optional cross-references to affiliations or footnotes (ce:cross-ref), an optional collaboration affiliation (ce:collab-aff), a number of electronic addresses of the collaboration (ce:e-address), and nested author groups for capturing the members of the collaboration (ce:author-group).

XML

```
<ce:collaboration id="coll1"
  collaboration-id="S0168583X16910218-d889e3eaca03f39b110bd08d92616021">
  <ce:text>ALPHA Collaboration</ce:text>
  <ce:cross-ref id="cr1" refid="fn1"><sup>1</sup></ce:cross-ref>
</ce:collaboration>
...
<ce:footnote id="fn1">
  <ce:label>1</ce:label>
  <ce:note-para id="np1">Operated by the Universities of ...</ce:note-para>
</ce:footnote>
```

The collaboration name can be used in an author group ce:author-group instead of or in addition to the names of one or more of its member authors. A ce:collaboration element can be the only element in an author group, or its author group can contain the names of other collaborations and the names of individual authors.

XML

```
<ce:author-group id="aug1">
  <ce:author id="au1"
    author-id="S0168583X16910346-6481c621ba47a2bade4fa090792df441">
    <ce:given-name>Th.J.</ce:given-name>
    <ce:surname>Jansen</ce:surname>
  </ce:author>
  <ce:text>for</ce:text>
  <ce:collaboration id="coll2"
    collaboration-id="S0168583X16910346-a0ad87f45fd2c4f3e36e7048f8427e4b">
    <ce:text>The ISOLDE Collaboration</ce:text>
    <ce:collab-aff>Cryogenic Helium Turbulence
      Laboratory ...</ce:collab-aff>
  </ce:collaboration>
</ce:author-group>
```

Presentation

Th.J. Jansen for The ISOLDE Collaboration

If (and only if) it is common to alphabetize the name at a place which cannot be inferred from the ce:collaboration, the subelement ce:indexed-name is used. This is only for very exceptional cases, because it is assumed that indexing programs can cope with all names with accented characters.

XML

```
<ce:collaboration id="coll3"
    collaboration-id="S0168583X16920019-25c92aa6e75482d7c7dfaa04fb9a5ad7">
  <ce:indexed-name>Alpha Collaboration</ce:indexed-name>
  <ce:text>&alpha; Collaboration</ce:text>
</ce:collaboration>
```

Sometimes a collaboration adds an affiliation-like phrase to its name. This can be captured in the ce:collab-aff element.

XML

```
<ce:collaboration id="coll4"
    collaboration-id="S0168583X16920020-d889e3eaca03f39b110bd08d92616021">
  <ce:text>ALPHA Collaboration</ce:text>
  <ce:collab-aff>Stockholm&ndash;London&ndash;Amsterdam</ce:collab-aff>
</ce:collaboration>
```

Presentation

ALPHA Collaboration

Stockholm–London–Amsterdam

The members of a collaboration can be captured with one or more ce:author-groups. These author groups can contain affiliations but may not contain other collaborations.

XML

```
<ce:collaboration id="coll5"
    collaboration-id="S0375947410006238-8e5e7dc199a89feebfd506962f714ea3">
  <ce:text>NEMO-3 Collaboration</ce:text>
  <ce:author-group id="aug2">
    <ce:author id="au2"
      author-id="S0375947410006238-70dd83a707624a54d8e4194bfbd48e55">
      <ce:given-name>J.</ce:given-name>
      <ce:surname>Argyiades</ce:surname>
      <ce:cross-ref id="cr5" refid="aff1">...</ce:cross-ref>
    </ce:author>
    <ce:author id="au3"
      author-id="S0375947410006238-ecbbacc219cc2d69ed60e04ed9178b2e">
      <ce:given-name>R.</ce:given-name>
      <ce:surname>Arnold</ce:surname>
      ...
    </ce:author>
    ...
    <ce:affiliation id="aff1">
      <ce:label>a</ce:label>
      <ce:textfn>LAL, ...</textfn>
    </ce:affiliation>
    ...
  </ce:author-group>
</ce:collaboration>
```

Presentation

⊞ NEMO-3 Collaboration

Presentation

NEMO-3 Collaboration (J. Argyiades, R. Arnold, C. Augier, . . . , V. Vorobel and Ts. Vylov)

A collaboration should not be confused with a non-person author (captured using ce:surname).

Version history

Parameter entity %cross-ref; was introduced in CEP 1.1.2. Subelements ce:e-address and ce:author-group were added in CEP 1.2.0. Attribute collaboration-id was added in CEP 1.5.0.

See also

ce:author, ce:author-group, ce:collab-aff, ce:indexed-name

ce:compound-formula

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:compound-formula   ( %text.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:compound-formula   ( %text.data; )*>
```

Description

The formula of a chemical compound within a stereochemistry abstract is captured using ce:compound-formula.

Usage

See ce:stereochem.

Version history

Prior to DTD 5.0, this element was called compound-f. In CEP 1.5.0 entity %math; was added to %text.data;.

ce:compound-info

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:compound-info      ( ce:list-item+ )>
```

Description

Part of a stereochemistry abstract is additional itemized information about a chemical compound. The element ce:compound-info provides a way to capture this.

Usage

See ce:stereochem.

ce:compound-name

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:compound-name      ( %text.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:compound-name      ( %text.data; )*>
```

Description

The name of a chemical compound within a stereochemistry abstract is captured using ce:compound-name.

Usage

See ce:stereochem.

Version history

In CEP 1.5.0 entity %math; was added to %text.data;.

ce:compound-struct

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:compound-struct    ( ce:link )>
```

Description

The purpose of the element ce:compound-struct, part of a stereochemistry abstract, is to provide a link to a graphic file showing a chemical structure.

Usage

See ce:stereochem.

ce:conflict-of-interest

Declaration

Model (CEP 1.6.0)

```
<!ELEMENT  ce:conflict-of-interest ( ce:section-title?, ce:para+ )>
<!ATTLIST  ce:conflict-of-interest
           id                      ID              #REQUIRED
           role                    CDATA           #IMPLIED
           view                    %view;          'all'>
```

Description

The element ce:conflict-of-interest contains a conflict of interest statement for an item.

Usage

The element ce:conflict-of-interest is used to capture the "Declaration of Competing Interest" statement (the preferred name for Conflict of Interest statement) outside of the Acknowledgment sections.

XML

```
<ce:conflict-of-interest id="coi01">
  <ce:para>The author has reported to <ce:italic>CHEST</ce:italic>
    that no potential conflicts of interest exist with any
    companies/organizations whose products or services may be
    discussed in this article.</ce:para>
</ce:conflict-of-interest>
```

Version history

This element was introduced in CEP 1.6.0.

ce:contributor-role

Declaration

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:contributor-role   ( %string.data; )*>
<!ATTLIST  ce:contributor-role
           role                  CDATA             #IMPLIED
           degree                CDATA             #IMPLIED>
```

Description

The role the author has performed in the creation of the work is in ce:contributor-role.

Usage

An author can perform several roles in the creation of a work. The CRediT taxonomy defines the following fourteen roles:

- Conceptualization
- Data curation
- Formal analysis
- Funding acquisition
- Investigation
- Methodology
- Project administration
- Resources
- Software
- Supervision
- Validation
- Visualization
- Writing – original draft
- Writing – review & editing

These roles can be captured with element ce:contribution-role. The role is in attribute role in the form of a URI. Only the above-mentioned roles are acceptable. An author can have more than one role and more than one author can have the same role. In case more than one author has the same role it is possible to add a degree (lead, equal or supporting) in attribute degree, again in the form of a URI. The element contains a description of the role.

XML

```
<ce:author id="au19">
  ...
  <ce:contributor-role role="http://credit.niso.org/
    contributor-roles/conceptualization/"
    degree="http://credit.niso.org/contributor-roles/
    conceptualization/equal">Conceptualization</ce:contributor-role>
  <ce:contributor-role role="http://credit.niso.org/
    contributor-roles/methodology/">
    Methodology</ce:contributor-role>
```

```
    <ce:contributor-role role="http://credit.niso.org/
      contributor-roles/writing-original-draft/">Writing &ndash;
      original draft</ce:contributor-role>
    ...
  </ce:author>
```

Version history

Element ce:contributor-role was introduced in CEP 1.5.0.

See also

ce:author

ce:copyright

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:copyright          ( %string.data; )*>
<!ATTLIST  ce:copyright
           type                  %copyright-type;  #REQUIRED
           year                  NMTOKEN           #REQUIRED>
```

Description

The element ce:copyright contains information about the copyright owner of the document, or of a component of the document.

Usage

The element ce:copyright is used to capture the copyright holder and status of an item. As an optional element within ce:figure, ce:textbox and ce:e-component, it can also be used to indicate the copyright holder of such an object.

It has two mandatory attributes, type and year. The latter contains the copyright year while the former, which takes its values in %copyright-type;, contains the copyright status, indicated by the following values (the copyright statuses refer to [20]):

- crown is used when the author claims Crown copyright. [Copyright status: 004.]
- free-of-copyright: this value is used when the item has no copyright, for example in case of an index. [Copyright status: 000.]
- full-transfer: this value is used when a full transfer to one of the publisher's companies has been received. [Copyright status: 002.]
- joint is used when a full transfer has been received for an article in a journal whose copyright is owned jointly by one of the publisher's companies and a society. [Copyright status: 002.]
- limited-transfer is used when the author has granted only limited rights; special care must be taken for its production. [Copyright status: 005.]
- no-transfer is used when there is an unresolvable copyright problem and the article may not be published (in principle, documents with this copyright status cannot occur). This should not be confused with copyright status 001, when copyright has not yet been transferred. Within ce:figure, ce:textbox or ce:e-component it is used to signal that the object may not appear online. [Copyright status: 007.]
- other is used when copyright owner is different from the journal's copyright owner, e.g. the authors or their employing institutions. This copyright type is also used in the ce:copyright within a ce:figure, ce:textbox or ce:e-component. [Copyright status: 006 or 008.]
- society is used when a full transfer has been received for an article in a journal whose copyright is owned by a society. [Copyright status: 002.]
- unknown: this value is used when the article may be published but the actual status is unknown. This is, for instance, the case when the copyright transfer form has not yet been received from the author. [Copyright status: 001.]

- `us-gov` is used when the author is a US government employee and will not transfer copyright. [Copyright status: 003.]

The content of `ce:copyright` is the copyright holder. Only if the value of `type` is `crown`, `no-transfer`, `other`, `unknown` or `us-gov`, may the content be empty.

The presentation of the copyright notice of an article depends on (i) the article's copyright status, (ii) the content of the `ce:copyright` element, and (iii) the base data of the journal or book, in particular its copyright owner. It is explained in full detail in [21]. Some examples are given below.

XML

```
<ce:copyright type="full-transfer" year="2012">Elsevier
  Ireland Ltd</ce:copyright>
<ce:copyright type="society" year="2012">Society of
  Cardiology</ce:copyright>
<ce:copyright type="unknown" year="2012"></ce:copyright>
```

Presentation

© 2012 Elsevier Ireland Ltd. All rights reserved.
© 2012 Society of Cardiology. Published by Elsevier Inc. All rights reserved.
© 2012 Published by Elsevier B.V.

Explanation

Note that in the second example, the publishing company is inferred from the base data, it is not present in the XML file. Moreover, in the third example, the "published by" information is also inferred from the journal base data. The text would be different if the journal's copyright holder is not one of the publisher's companies.

Version history

In CEP 1.2.0 value `free-of-copyright` was added to entity `%copyright-type;`.

See also

`ce:copyright-line`

ce:copyright-line

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:copyright-line     ( %richstring.data; )*>
```

Description

The element ce:copyright-line contains a verbatim text to be used as copyright line.

Usage

The element ce:copyright-line contains verbatim text to be used as copyright line. It is used in the Elsevier Book DTDs and in DTDs where the copyright statuses as defined in ce:copyright are not (yet) applicable. It is generated from the ce:copyright element.

The element was introduced in version 5.2.0 of the Journal Article DTD. Until further notice it is only to be used when instructed.

XML

```
<ce:copyright-line>© 2013 Elsevier B.V.</ce:copyright-line>
```

Version history

This element was introduced in CEP 1.1.0.

ce:correspondence

Declaration

Model (CEPs 1.1.0–1.2.0)

```
<!ELEMENT  ce:correspondence     ( ce:label, ce:text )>
<!ATTLIST  ce:correspondence
           id                    ID                #REQUIRED>
```

Model (CEPs 1.4.0–1.6.0)

```
<!ELEMENT  ce:correspondence     ( ce:label, ce:text, sa:affiliation? )>
<!ATTLIST  ce:correspondence
           id                    ID                #REQUIRED>
```

Description

The element ce:correspondence is used to indicate the corresponding author or authors, and possibly the correspondence address.

Usage

The element ce:correspondence is used to indicate that each author linked to it is a corresponding author. The link is established through a ce:cross-ref within ce:author, and it must be the target of at least one such cross-reference. To this end, the element ce:correspondence has an id attribute and a ce:label subelement — the latter contains the symbol displayed at the footnote.

It is also possible to have several corresponding authors, each with their own id and ce:label element.

The content can be merely “Corresponding author.” or it can contain the correspondence address, which might differ from the author’s affiliation. Where possible the structured address information is to be captured in sa:affiliation.

XML

```
<ce:correspondence id="cor1">
  <ce:label>&#x0204E;</ce:label>
  <ce:text>Correspondence to: A.Z. Breif,
    Content Architect, Elsevier,
    Radarweg 29, 1043 NX Amsterdam, The Netherlands.
    Tel.: +31 20 4859999.</ce:text>
    <sa:affiliation>
      <sa:organization>Elsevier<sa:organization>
      <sa:address-line>Radarweg 29</sa:address-line>
      <sa:city>Amsterdam</sa:city>
      <sa:postal-code>1043 NX</sa:postal-code>
      <sa:country>The Netherlands</sa:country>
    </sa:affiliation>
</ce:correspondence>
```

Version history

Subelement sa:affiliation was added in CEP 1.4.0.

See also

ce:author-group and sa:affiliation

ce:cross-out

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:cross-out          ( %richstring.data; )*>
```

Description

The element ce:cross-out is related to the font changing elements (p. 184). It is used to obtain crossed-out text.

Usage

To obtain crossed-out (strike-through) text, use ce:cross-out.

XML

```
<ce:cross-out>This text is crossed-out</ce:cross-out>
```

Presentation

~~This text is crossed-out~~

See also

For more information see the section on text effects (p. 184). See also ce:bold, ce:italic, ce:monospace, ce:sans-serif, ce:small-caps, ce:underline.

ce:cross-ref

Declaration

Model (CEPs 1.1.0–1.1.6)

```
<!ELEMENT  ce:cross-ref          ( %text.data; )*>
<!ATTLIST  ce:cross-ref
           refid                 IDREF            #REQUIRED>
```

Model (CEPs 1.2.0, 1.4.0)

```
<!ELEMENT  ce:cross-ref          ( %text.data; )*>
<!ATTLIST  ce:cross-ref
           id                    ID               #IMPLIED
           refid                 IDREF            #REQUIRED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:cross-ref          ( %text.data; )*>
<!ATTLIST  ce:cross-ref
           id                    ID               #IMPLIED
           refid                 IDREF            #REQUIRED>
```

Description

Simple cross-references to targets within the same document instance are tagged using ce:cross-ref.

Usage

A cross-reference is a reference to another element in the document instance. The mandatory attribute refid contains a valid ID.

XML

```
see <ce:cross-ref id="cr3" refid="tbl4">Table 4</ce:cross-ref>
according to <ce:cross-ref id="cr3" refid="enun7">Lemma 1.6</ce:cross-ref>
in (<ce:cross-ref id="cr3" refid="bib37">Smith et al., 1998</ce:cross-ref>)
<ce:cross-ref id="cr3" refid="fn2"><ce:sup>2</ce:sup></ce:cross-ref>
```

Presentation

see Table 4
according to Lemma 1.6
in (Smith et al., 1998)
2

The content of ce:cross-ref is popularly referred to as “the text to click on”. In an electronic rendering, clicking on the text immediately leads to the destination. The content is the full designation of the destination, e.g. “Fig. 4” rather than “4”. Presentation, such as superior for a reference to a footnote, is tagged explicitly.

The element ce:cross-ref may be empty. This can happen, for instance, in a glossary or index. The rendering application must then provide another way to reach the destination.

Version history

In DTD 4, the element cross-ref allows one-to-many links. The new element ce:cross-refs has been introduced for that purpose. The id attribute was added in CEP 1.2.0. In CEP 1.5.0 entity %math; was added to %text.data;.

Rendering notes

Element ce:cross-ref has no influence on where its target appears in the paper or online versions. For instance, float placement is arranged using ce:float-anchor; where the ce:cross-ref that points to the float appears is immaterial.

Copy edit considerations

It sometimes happens that cross-references, especially to bibliographic references, only appear within artwork. It is then required to change the text, e.g. the figure caption, in such a way that the object can be referred to using ce:cross-ref.

See also

For more information, see the section Cross-references and the label element (p. 180), as well as the elements ce:cross-refs, ce:intra-ref, ce:intra-refs, ce:inter-ref, ce:inter-refs.

ce:cross-refs

Declaration

Model (CEPs 1.1.0–1.1.6)

```
<!ELEMENT  ce:cross-refs        ( %text.data; )*>
<!ATTLIST  ce:cross-refs
           refid                IDREFS          #REQUIRED>
```

Model (CEPs 1.2.0, 1.4.0)

```
<!ELEMENT  ce:cross-refs        ( %text.data; )*>
<!ATTLIST  ce:cross-refs
           id                   ID              #IMPLIED
           refid                IDREFS          #REQUIRED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:cross-refs        ( %text.data; )*>
<!ATTLIST  ce:cross-refs
           id                   ID              #IMPLIED
           refid                IDREFS          #REQUIRED>
```

Description

Extended cross-references to multiple targets within the same document instance are tagged using ce:cross-refs.

Usage

An extended cross-reference is a reference to several other elements in the document instance. The mandatory attribute refid contains a list of valid IDs. There must be more than one target; for single targets ce:cross-ref is used.

XML

```
see <ce:cross-refs id="crs3" refid="tbl4 tbl5">Tables 4 and 5</ce:cross-refs>
see <ce:cross-refs id="crs3" refid="pl2 pl3 pl4">Plates II&ndash;IV</ce:cross-refs>
in <ce:cross-refs id="crs3" refid="bib1 bib2 bib3">[1&ndash;3]</ce:cross-refs>
in (<ce:cross-refs id="crs3" refid="bib19 bib20">Jones, 2001a,b</ce:cross-refs>)
```

Presentation

see Tables 4 and 5
see Plates II–IV
in [1–3]
in (Jones, 2001a,b)

The content is the full designation of the destination, e.g. “Figs. 4 and 5” or “Tables 7–10”. Presentation, such as superior for a reference to a footnote, is tagged explicitly.

Due to the one-to-many nature of ce:cross-refs, it is a complicated element. The content of ce:cross-refs is popularly referred to as “the text to click on”. When users click on this text, the rendering application may provide the user with a list of the targets that this ce:cross-refs points to. An important role is played by the ce:label elements of the

destinations, that can be used to construct such a list. For more information, see the section Cross-references and the label element (p. 180).[1]

The element ce:cross-refs may be empty. This can happen, for instance, in a glossary or index. The rendering application must then provide another way to reach the destination.

Version history

In DTD 4, the element cross-ref was used for both one-to-one and one-to-many links. The element ce:cross-ref now only allows one-to-one links. The id attribute was added in CEP 1.2.0. In CEP 1.5.0 entity %math; was added to %text.data;.

Copy edit considerations

It sometimes happens that cross-references, especially to bibliographic references, only appear within artwork. It is then required to change the text, e.g. the figure caption, in such a way that the object can be referred to using ce:cross-ref.

Rendering notes

This section deals with the *online* rendering of one-to-many links.

Rendering one-to-many links is, of course, cumbersome. In the PDF rendering, the content of ce:cross-refs is displayed, and a link to only the first destination is made. In an online rendering, this is inadequate. An important role is played by the ce:label element of the target.[2] These labels are used to create a drop-down menu of targets, or they are rendered sequentially in-line.

Since the inline representation is the most popular, we describe it in more detail here.

XML

```
see Refs. <ce:cross-refs id="crs4" refid="bib7 bib8 bib9 bib10">
[7&ndash;10]</ce:cross-refs> for more information.
```

Presentation

see Refs. [7], [8], [9], and [10] for more information.

Explanation

The hyperlinks to the four bibliographic references are *not* created by examining the content of the ce:cross-refs element, but by pulling out the content of the ce:label elements of the targets. The content of ce:cross-refs is in fact a collapsed version of these ce:labels.

It is wrong to examine the content of the element ce:cross-refs and to build logic for expanding the text. A situation that is not uncommon is that an author refers to five chemical reactions (21)–(25), but that three of them are actually presented on a graphic, say Scheme VII. Since these are not coded in XML, it is impossible to refer to the individual reactions. This is done as follows.

XML

```
... reactions <ce:cross-refs id="crs7" refid="f21 sc7 f25">
(21)&ndash;(25)</ce:cross-refs> ...
```

1. In XML files used for online rendering, it is possible to convert ce:cross-refs to the XLink-compliant ce:intra-refs, which already contains the designations of the targets.
2. Note that this is a simplification, used for brevity. In truth, the section title or other portions of the destination also play a role. This is explained in the section Cross-references and the label element (p. 180). In this section we talk about the ce:label element to explain the general concept.

Presentation

... reactions (21), Scheme VII, (25) ...

Explanation

The `ce:label` elements of the targets lead the reader to the correct destination.

It is difficult to construct a sentence that works well with the content of `ce:cross-refs` as well as with the expansion of all the `ce:label`s of the target objects. For instance, suppose that the text contains "... in Figs. 4(a) and 5(b)–(d) ..." while the labels are "Fig. 4" and "Fig. 5", then the way described above to construct the online sentence loses crucial information about which subfigures are meant. In such cases the use of `ce:cross-ref` is preferred.

See also

For more information, see the section Cross-references and the label element (p. 180), as well as the elements `ce:cross-refs`, `ce:intra-ref`, `ce:intra-refs`, `ce:inter-ref`, `ce:inter-refs`.

ce:data-availability

Declaration

Model (CEP 1.6.0)

```
<!ELEMENT  ce:data-availability  ( ce:section-title?, ce:para+ )>
<!ATTLIST  ce:data-availability
           id                    ID               #REQUIRED
           role                  CDATA            #IMPLIED
           view                  %view;           'all'>
```

Description

The element ce:data-availability contains a data availability statement for the article.

Usage

The element ce:data-availability is used to capture a Data Sharing Statement in a paper.

The data sharing or data availability statement may contain a title and free text. Whether this text should follow an explicit format or not is as of now undecided, and may depend on the requirements in a scientific discipline.

XML

```
<ce:data-availability id="da1">
  <ce:section-title id="st1">Data sharing</ce:section-title>
  <ce:para id="p1">The code for the modelling is available
    from the first author on request.</ce:para>
</ce:data-availability>
```

Version history

This element was introduced in CEP 1.6.0.

See also

ce:associated-resource

ce:date-accepted

Declaration

Model (CEPs 1.1.0–1.5.0)

```
<!ELEMENT  ce:date-accepted      EMPTY>
<!ATTLIST  ce:date-accepted
           day                   NMTOKEN          #IMPLIED
           month                 NMTOKEN          #REQUIRED
           year                  NMTOKEN          #REQUIRED>
```

Model (CEP 1.6.0)

```
<!ELEMENT  ce:date-accepted      EMPTY>
<!ATTLIST  ce:date-accepted
           day                   NMTOKEN          #IMPLIED
           month                 NMTOKEN          #REQUIRED
           year                  NMTOKEN          #REQUIRED
           role                  CDATA            #IMPLIED>
```

Description

The ce:date-accepted element is used to capture the acceptance date of the article. It is an optional, empty element within the frontmatter.

Usage

Three attributes, day, month, year are used to store the day, month and year respectively. The latter two attributes are mandatory. The values are numbers, not padded with zero.

XML

```
<ce:date-accepted day="29" month="2" year="2000"/>
```

Presentation

Accepted 29 February 2000

XML

```
<ce:date-accepted month="8" year="2002"/>
```

Presentation

Accepted August 2002

In case the acceptance date is not to be rendered, the role value suppressed can be used.

XML

```
<ce:date-received day="8" month="9" year="2017"/>
<ce:date-revised day="14" month="11" year="2017"/>
<ce:date-accepted day="15" month="12" year="2017"
  role="suppressed"/>
```

Presentation

Received:
8 September 2017
Revised:
14 November 2017
Available online:
18 December 2017

Version history

In DTDs prior to DTD 5.0, this element was called `acc`. Attribute `role` was added in CEP 1.6.0.

See also

`ce:date-received`, `ce:date-revised`

ce:date-received

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:date-received      EMPTY>
<!ATTLIST  ce:date-received
           day                   NMTOKEN          #IMPLIED
           month                 NMTOKEN          #REQUIRED
           year                  NMTOKEN          #REQUIRED>
```

Description

The ce:date-received element is used to capture the received date of the article. It is an optional, empty element within the frontmatter.

Usage

Three attributes, day, month, year are used to store the day, month and year respectively. The latter two attributes are mandatory. The values are numbers, not padded with zero.

XML

```
<ce:date-received day="20" month="5" year="1964"/>
```

Presentation

Received 20 May 1964

Version history

In DTDs prior to DTD 5.0, this element was called `re`.

See also

ce:date-accepted, ce:date-revised

ce:date-revised

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:date-revised       EMPTY>
<!ATTLIST  ce:date-revised
           day                   NMTOKEN          #IMPLIED
           month                 NMTOKEN          #REQUIRED
           year                  NMTOKEN          #REQUIRED>
```

Description

The ce:date-revised element is used to capture the revised date(s) of the article, also known as “revised version received” date.

It is an optional, empty element within the frontmatter, where it may occur multiple times.

Usage

Three attributes, day, month, year are used to store the day, month and year respectively. The latter two attributes are mandatory. The values are numbers, not padded with zero.

XML

```
<ce:date-revised day="1" month="4" year="1998"/>
<ce:date-revised day="23" month="11" year="1999"/>
```

Presentation

Revised 1 April 1998 and 23 November 1999

XML

```
<ce:date-revised day="14" month="7" year="2003"/>
<ce:date-revised day="5" month="4" year="2004"/>
<ce:date-revised day="19" month="4" year="2004"/>
```

Presentation

Revised 14 July 2003, 5 April 2004 and 19 April 2004

Version history

In DTDs prior to DTD 5.0, this element was called `rv`.

See also

ce:date-accepted, ce:date-received

ce:dedication

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:dedication        ( %textfn.data; )*>
```

Model (CEP 1.1.6)

```
<!ELEMENT  ce:dedication        ( %textfn.data; )*>
<!ATTLIST  ce:dedication
           role                 CDATA            #IMPLIED>
```

Model (CEPs 1.2.0, 1.4.0)

```
<!ELEMENT  ce:dedication        ( %textfn.data; )*>
<!ATTLIST  ce:dedication
           id                   ID               #IMPLIED
           role                 CDATA            #IMPLIED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:dedication        ( %textfn.data; )*>
<!ATTLIST  ce:dedication
           id                   ID               #IMPLIED
           role                 CDATA            #IMPLIED>
```

Description

A dedication within the head of an article is captured using ce:dedication.

Usage

The element ce:dedication is an optional subelement of the head of a document. It contains the full text of a dedication.

XML

```
<ce:dedication id="ded23">Dedicated to Professor C. Böhm
  on the occasion of his 60th birthday.</ce:dedication>
```

Rendering notes

The text “Dedicated to” is not generated.

Version history

Prior to DTD 5.0, this element was called ded. The role attribute was added in CEP 1.1.6, while the id attribute was added in CEP 1.2.0. In CEP 1.5.0 entity %math; was added to %textfn.data;.

ce:def-description

Declaration

Model (CEPs 1.1.0–1.1.6)

```
<!ELEMENT  ce:def-description    ( ce:para+ )>
```

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  ce:def-description    ( ce:para+ )>
<!ATTLIST  ce:def-description
           id                    ID               #IMPLIED>
```

Description

The element ce:def-description is used to capture the description within an entry in a ce:def-list.

Usage

See ce:def-list.

Version history

Prior to DTD 5.0, this element was called dd. The id attribute was added in CEP 1.2.0.

ce:def-list

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:def-list          ( ce:label?, ce:section-title?,
                                  ( ce:def-term, ce:def-description? )+ )>
<!ATTLIST  ce:def-list
           id                   ID                #IMPLIED>
```

Model (CEPs 1.1.6–1.6.0)

```
<!ELEMENT  ce:def-list          ( ce:label?, ce:section-title?,
                                  ( ce:def-term, ce:def-description? )+ )>
<!ATTLIST  ce:def-list
           id                   ID                #IMPLIED
           role                 CDATA             #IMPLIED>
```

Description

The element ce:def-list contains a list of terms and definitions.

Usage

The element ce:def-list, definition list, is modeled after HTML's DL. Its purpose is to capture terms and definitions.

A definition list has an optional label (ce:label) and an optional title (ce:section-title). It has an optional id attribute so that it can become the target of cross-references.

The list itself is a sequence of definition terms, ce:def-term, and optional definition descriptions, ce:def-description, which consist of one or more paragraphs, ce:para. The ce:def-term may possess an id so that it can be referred to, but due to the efforts needed to create these cross-references, this seldom happens in practice. The defined term can be linked to a location elsewhere, for instance to the definition in the item's content.

If used to capture terms and definitions, as in ce:nomenclature, the term is always contained in the ce:def-term immediately preceding the ce:def-description.

Version history

Prior to DTD 5.0, this element was called dl. The role attribute was added in CEP 1.1.6.

See also

ce:list, ce:nomenclature

ce:def-term

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:def-term          ( %text.data; )*>
<!ATTLIST  ce:def-term
           id                   ID              #IMPLIED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:def-term          ( %textref.data; )*>
<!ATTLIST  ce:def-term
           id                   ID              #IMPLIED>
```

Description

The element ce:def-term is used to capture the term defined or explained in an entry of a ce:def-list.

Usage

See ce:def-list.

Version history

Prior to DTD 5.0, this element was called dt. In CEP 1.5.0 the model of ce:def-term was changed to %textref.data; making it possible to add cross-references. Also, entity %math; was added to %textref.data;.

ce:degrees

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:degrees            ( %richstring.data; )*>
```

Description

Titles before or after an author name are captured using ce:degrees.

Usage

The element ce:degrees is used for academic degrees, titles of nobility or dignity, military or police ranks, etc. It may occur before and/or after the name.

XML

```
<ce:degrees>Prof. Dr. Ing.</ce:degrees>
<ce:given-name>Wolfgang</ce:given-name>
<ce:surname>Böhm</ce:surname>
```

XML

```
<ce:degrees>Sir</ce:degrees>
<ce:given-name>Michael</ce:given-name>
<ce:surname>Attiya</ce:surname>
<ce:degrees>Ph.D. (Oxon), KBE, FRCS</ce:degrees>
```

XML

```
<ce:degrees>Captain</ce:degrees>
<ce:given-name>Jean-Luc</ce:given-name>
<ce:surname>Picard</ce:surname>
```

XML

```
<ce:given-name>Patricia D.</ce:given-name>
<ce:surname>Smith</ce:surname>
<ce:degrees>(Mrs.)</ce:degrees>
```

Presentation

Prof. Dr. Ing. Wolfgang Böhm
Sir Michael Attiya, Ph.D. (Oxon), KBE, FRCS
Captain Jean-Luc Picard
Patricia D. Smith (Mrs.)

The element should not be confused with ce:suffix or ce:roles.

Rendering notes

The second ce:degrees generates a comma, unless it begins with a parenthesis.

Version history

Prior to DTD 5.0, this element was called degs.

See also

ce:author, ce:suffix, ce:roles

ce:display

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:display          ( ce:figure | ce:table | ce:textbox |
                                 ce:e-component | ce:formula )>
```

Description

The element ce:display is a container element for displayed figures, tables, textboxes, e-components and formulae.

Usage

To indicate that a figure, table, textbox, e-component or formula is "displayed" — which means that it must appear free-standing with white space above and below at the exact position where the element occurs in the document — it should be embedded in a ce:display element.

See also

ce:e-component, ce:figure, ce:table, ce:formula, ce:textbox

ce:displayed-quote

Declaration

Model (CEPs 1.1.0–1.1.6)

```
<!ELEMENT  ce:displayed-quote    ( ce:simple-para+ )>
<!ATTLIST  ce:displayed-quote
           id                    ID               #IMPLIED
           role                  CDATA            #IMPLIED>
```

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  ce:displayed-quote    ( ce:simple-para+, ce:source? )>
<!ATTLIST  ce:displayed-quote
           id                    ID               #IMPLIED
           role                  CDATA            #IMPLIED>
```

Description

The element ce:displayed-quote is used to capture displayed quotes.

Usage

Displayed quotes are pieces of text, mostly but not necessarily quotations, often presented with a certain indent and some white space above and below. They contain one or more simple paragraphs, ce:simple-para. The optional subelement ce:source is used to describe the source of the text.

XML

```
<ce:displayed-quote id="dq1">
  <ce:simple-para id="sp11">&ldquo;Everything has a version number&rdquo;
    and &ldquo;Who is in the dark, should switch on the light&rdquo;
    are CAM mottos.</ce:simple-para>
</ce:displayed-quote>
```

XML

```
<ce:displayed-quote id="dq2">
  <ce:simple-para id="sp12">Louis, I think this is the beginning
    of a beautiful friendship.</ce:simple-para>
  <ce:source id="src1">Rick Blain
    (<ce:italic>Casablanca</ce:italic>)</ce:source>
</ce:displayed-quote>
```

The attribute role allows one to categorize displayed quotes. For instance, it makes it possible to mark “poetry” displayed quotes, and handle these in different ways than ordinary displayed quotes. Applications should treat displayed quotes with roles unknown to them as ordinary displayed quotes, i.e., unknown roles must be ignored. The role must belong to a list validated by the XML validation tools. The following value for role has been defined:

- poetry signals that the ce:displayed-quote contains a table which is used for the stanza of a poem, and that the rows should be printed with the normal line distance.

  XML

```
<ce:displayed-quote id="dq3" role="poetry">
  <ce:simple-para id="sp45"><ce:display>
      <ce:table rowsep="0" colsep="0" id="tbl12">
        <tgroup cols="1">
          <colspec colname="col1"/>
          <tbody>
<row><entry>Just before our love got lost you said</entry></row>
<row><entry>I am as constant as a northern star</entry></row>
<row><entry>And I said, constant in the darkness</entry></row>
<row><entry>Where's that at?</entry></row>
<row><entry>If you want me I'll be in the bar</entry></row>
          </tbody>
        </tgroup>
      </ce:table>
    </ce:display><ce:display>
      <ce:table rowsep="0" colsep="0" id="tbl13">
        <tgroup cols="1">
          <colspec colname="col1"/>
          <tbody>
<row><entry>On the back of a cartoon coaster</entry></row>
<row><entry>In the blue tv screen light</entry></row>
<row><entry>I drew a map of Canada</entry></row>
<row><entry>Oh Canada</entry></row>
<row><entry>And your face sketched on it twice</entry></row>
          </tbody>
        </tgroup>
      </ce:table>
    </ce:display></ce:simple-para>
</ce:displayed-quote>
```

Presentation

Just before our love got lost you said
I am as constant as a northern star
And I said, constant in the darkness
Where's that at?
If you want me I'll be in the bar

On the back of a cartoon coaster
In the blue tv screen light
I drew a map of Canada
Oh Canada
And your face sketched on it twice

Version history

Prior to DTD 5.0, this element was called qd. Subelement ce:source was introduced in CEP 1.2.0.

Light reading

ce:displayed-quote may not be used in CONTENTS-ENTRY-ONLY, HEAD-ONLY or HEAD-AND-TAIL files.

See also

ce:textbox (for pull-quotes)

ce:dochead

Declaration

Model (CEPs 1.1.0–1.1.6)

```
<!ELEMENT  ce:dochead            ( ce:textfn, ce:dochead? )>
```

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  ce:dochead            ( ce:textfn, ce:dochead? )>
<!ATTLIST  ce:dochead
           id                    ID                #IMPLIED>
```

Description

The element ce:dochead contains the document heading or article type of the article.

Usage

A document heading or article type usually appears above the title. There is a wide variety of examples, such as “Short Communication”, “Erratum”, “Fundamental Study”. Such headings are captured using ce:dochead.

XML

```
<ce:dochead id="dh1">
  <ce:textfn>Short Communication</ce:textfn>
</ce:dochead>
```

It is possible to nest a ce:dochead to obtain a second-order document heading. It is not allowed to nest deeper.

Although usually items with the same ce:dochead are grouped in a table of contents under a similar heading, e.g. “Short communications”, this heading must not be inferred from the document headings of the items. The ce:dochead is only used to display a document heading above the title.

Some article types contain a ce:dochead but no ce:title.

Version history

The id attribute was added in CEP 1.2.0.

Light reading

The ce:dochead appears also in HEAD-ONLY and HEAD-AND-TAIL as well as in CONTENTS-ENTRY-ONLY files.

See also

ce:doctopics

ce:doctopic

Declaration

Model (CEPs 1.1.0–1.1.6)

```
<!ELEMENT  ce:doctopic          ( ce:text, ce:doctopic? )>
<!ATTLIST  ce:doctopic
           role                 CDATA            #IMPLIED>
```

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  ce:doctopic          ( ce:text, ce:doctopic? )>
<!ATTLIST  ce:doctopic
           id                   ID               #IMPLIED
           role                 CDATA            #IMPLIED>
```

Description

The element ce:doctopic contains a topic in a topic hierarchy.

Usage

See ce:doctopics.

To identify Continuing Medical Education content the role value cme can be used. For instance,

XML

```
<ce:doctopic id="doct1" role="cme">
  <ce:text>CME article</ce:text>
</ce:doctopic>
```

Version history

The id attribute was added in CEP 1.2.0.

ce:doctopics

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:doctopics          ( ce:doctopic+ )>
```

Description

The element ce:doctopics is used to associate an item with one or more topic hierarchies.

Usage

The table of contents of a book or journal issue is only one way to list the items it consists of. It is contained in a file structured according to a books DTD or content-transport schema. For instance, the proceedings of a large conference may be published in the order of the presentations at that conference. Besides this, it may be useful to associate the item with one or more topic hierarchies, in order to group items of the same scientific relevance. These hierarchies provide other ways to gain access to the items of a book or journal issue; in a sense tables of content different from the one that represents the physical publication can be generated from the topic hierarchies.

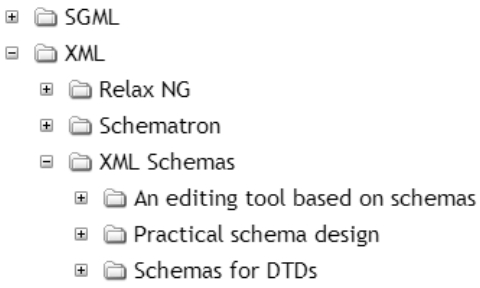
For instance, a proceedings about document structuring, whose articles appear in the order of the time when the presentations were given, might contain articles about “XML”, “SGML”, etc., and within the first category, articles about “XML schemas”, “Schematron”, “Relax NG”; but the proceedings might have another division depending on whether the article concerns theoretical aspects, practical aspects or actual implementations in software. The following example illustrates this.

XML

```
<ce:doctopics>
  <ce:doctopic role="languages" id="dt1">
    <ce:text>XML</ce:text>
    <ce:doctopic id="dt2">
      <ce:text>XML schemas</ce:text>
    </ce:doctopic>
  </ce:doctopic>
  <ce:doctopic role="theory and practice" id="dt3">
    <ce:text>Parsers</ce:text>
  </ce:doctopic>
</ce:doctopics>
```

Presentation

This would generate no output for the item itself, but the item, entitled “An editing tool based on schemas” might appear thus in an online rendering of the topic hierarchy, which resembles a common directory structure:



All articles with equal topic hierarchy end up in the same leaf node of the hierarchy.

The optional attribute `role` can be used to name topic hierarchies.

Keywords and classification codes, captured with `ce:keywords` are another way to apply structure to a collection of items. Keywords are mostly designed to ease searching, and typically apply to documents that may occur in many different products. For instance, the mathematics subject classification applies to items of many different journals as well as to books and book chapters. The topic hierarchies, however, are meant mostly for creating alternative tables of content depending on criteria of, say, one certain multi-volume book project.

See also

`ce:dochead`, `ce:keywords`

ce:document-thread

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:document-thread    ( ce:refers-to-document+ )>
```

Description

The element ce:document-thread contains a sequence of document identifiers related to the item.

Usage

A document thread consists of one or more references to other items, captured with element ce:refers-to-document.

It is used, for instance, to link an erratum to the original document. An online application can then create a link from the erratum to the original document and, perhaps more importantly, a link from the original document to the erratum.

Discussion threads can be quite complex: In a discussion thread of five documents, the documents could refer to the first one (except the first one itself of course) while the fifth document could also refer to the second and fourth document. An online application could then generate all the links as described in this paragraph (12 in total).

XML

```
<ce:document-thread>
  <ce:refers-to-document id="rt1">
    <ce:pii>S0165-0114(04)00081-8</ce:pii>
    <ce:doi>10.1016/j.fss.2004.02.012</ce:doi>
  </ce:refers-to-document>
  <ce:refers-to-document id="rt2">
    <ce:pii>S0165-0114(02)00276-2</ce:pii>
    <ce:doi>10.1016/S0165-0114(02)00276-2</ce:doi>
  </ce:refers-to-document>
</ce:document-thread>
```

Version history

This element was introduced in CEP 1.1.0 and replaced ce:article-thread.

See also

ce:refers-to-document

ce:doi

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:doi                ( %string.data; )*>
```

Description

The element ce:doi contains the DOI of the item.

Usage

Each item can have a DOI, a *digital object identifier*, see http://www.doi.org. To identify the document, ce:doi is populated with the DOI of the document.

The DOI co-exists beside the PII. An item can have a PII, but not a DOI, for instance if the journal does not have an online appearance.

The DOI of a bibliographic reference can also be captured with ce:doi.

XML

```
<ce:doi>10.1016/j.sedgeo.2003.11.025</ce:doi>
```

Presentation

https://doi.org/10.1016/j.sedgeo.2003.11.025

XML

```
<ce:doi>10.1669/0883-1351(2004)019&lt;0598:HDWABO&gt;2.0.CO;2</ce:doi>
```

Presentation

https://doi.org/10.1669/0883-1351(2004)019<0598:HDWABO>2.0.CO;2

XML

```
<ce:bib-reference id="b111">
  <ce:label>Lesch, 2004</ce:label>
  <sb:reference id="sbr175">
    ....
    <sb:host>
      ...
      <ce:doi>10.1016/j.compag.2004.11.004</ce:doi>
    </sb:host>
  </sb:reference>
</ce:bib-reference>
```

Presentation

Lesch, S.M., 2004. Sensor-directed spatial response sampling designs for characterizing spatial variation of soil properties. Comp. Electron. Agric., https://doi.org/10.1016/j.compag.2004.11.004.

Rendering notes

DOIs are always presented as a permanent URL link.

See also

aid, jid, ce:pii

ce:e-address

Declaration

Model (CEPs 1.1.0–1.1.6)

```
<!ELEMENT  ce:e-address          ( %text.data; )*>
<!ATTLIST  ce:e-address
           type                  %e-address-type;  "email">
```

Model (CEPs 1.2.0, 1.4.0)

```
<!ELEMENT  ce:e-address          ( %text.data; )*>
<!ATTLIST  ce:e-address
           id                    ID                #IMPLIED
           type                  %e-address-type;  "email">
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:e-address          ( %text.data; )*>
<!ATTLIST  ce:e-address
           id                    ID                #IMPLIED
           type                  %e-address-type;  "email"
           xlink:href            CDATA             #IMPLIED>
```

Description

The purpose of the ce:e-address element is to capture the electronic address(es) of the authors of the document.

Usage

Each author or collaboration can have zero or more electronic addresses which are tagged using ce:e-address. The attribute type denotes the type of the electronic address. Its values (collected in %e-address-type;) are email, url and social-media. email, the default value, is an email address, and url is a complete URL, beginning with http://. The electronic address can also be a social media site indicated by type social-media. The element then contains the social media's "handle".

In all cases the URI is to be captured in attribute xlink:href.

XML

```
<ce:e-address id="ea1" type="email"
  xlink:href="mailto:t.smid@math.au.nl">
  t.smid@math.au.nl</ce:e-address>
<ce:e-address id="ea2" type="url"
  xlink:href="http://www.math.au.nl/~tsmid">
  http://www.math.au.nl/~tsmid</ce:e-address>
```

XML

```
<ce:e-address id="ea3" type="social-media" xlink:href=
  "https://twitter.com/OnThisDayinMath">@OnThisDayinMath</ce:e-address>
```

Character entities are not allowed in the content of ce:e-address with the exception of & (used for an ampersand within a URL).

Version history

Prior to DTD 5.0, this element was called `ead`. The `id` attribute was added in CEP 1.2.0. In CEP 1.5.0 the `xlink:href` attribute was added and value `social-media` was added to parameter entity `%e-address-type;`. Also, entity `%math;` was added to `%text.data;`.

See also

`ce:author` and `ce:collaboration`

ce:e-component

Declaration

Model (CEPs 1.1.0–1.1.1)

```
<!ELEMENT  ce:e-component        ( ce:label?, ce:caption?, ce:copyright?,
                                   ( ( ce:link, ce:alt-e-component? ) |
                                   ce:e-component )+ )>
<!ATTLIST  ce:e-component
           id                    ID                #IMPLIED>
```

Model (CEP 1.1.2)

```
<!ELEMENT  ce:e-component        ( ce:label?, ce:caption*, ( %copy-
                                   right; )?, ( ( ce:link, ce:alt-e-
                                   component? ) | ce:e-component )+ )>
<!ATTLIST  ce:e-component
           id                    ID                #IMPLIED>
```

Model (CEPs 1.1.3, 1.1.4)

```
<!ELEMENT  ce:e-component        ( ce:label?, ce:caption*, ce:source?,
                                   ( %copyright; )?, ( ( ce:link, ce:alt-
                                   e-component? ) | ce:e-component )+ )>
<!ATTLIST  ce:e-component
           id                    ID                #IMPLIED>
```

Model (CEPs 1.1.5, 1.1.6)

```
<!ELEMENT  ce:e-component        ( ce:label?, ce:caption*, ce:source?,
                                   ( %copyright; )?, ( ( ce:link, ce:alt-
                                   e-component? ) | ce:e-component )+ )>
<!ATTLIST  ce:e-component
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED>
```

Model (CEP 1.2.0)

```
<!ELEMENT  ce:e-component        ( ce:label?, ce:caption*, ce:source?,
                                   ( %copyright; )?, ce:keywords*,
                                   ( ( ce:link, ce:alt-e-component? ) |
                                   ce:e-component )+ )>
<!ATTLIST  ce:e-component
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED>
```

Model (CEPs 1.4.0–1.6.0)

```
<!ELEMENT  ce:e-component        ( ce:label?, ce:caption*, ce:alt-
                                   text*, ce:source?, ( %copyright; )?,
                                   ce:keywords*, ( ( ce:link, ce:alt-e-
                                   component? ) | ce:e-component )+ )>
<!ATTLIST  ce:e-component
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED>
```

Description

Electronic components are objects such as applets and video and audio sources, spreadsheets, etc., as well as images that do not satisfy the CAP requirements for ce:figure. The element ce:e-component is provided for this purpose.

Usage

The element ce:e-component, short for electronic component, contains objects that exist in electronic form, and need to be presented to the reader of an electronic rendition of the document. The element has an optional subelement ce:alt-e-component which is used instead in media that cannot handle the electronic component, e.g. in print or in a web PDF file. Below we call these media "non-electronic media" and it is worth remembering that that includes the web PDF file.

Electronic components should not be confused with "views", see Views (p. 193).

XML structure of an electronic component

As for other cases where ce:link is used, the type of destination can be inferred from the entity's declaration. For a ce:e-component, NDATA types APPLICATION, AUDIO, VIDEO and XML can appear — these are exclusively used in ce:e-component. The NDATA type IMAGE can also appear, this is used for "Non-CAP" artwork, i.e., artwork meant for online display not satisfying the CAP artwork specifications.

The ce:e-component can be "floating" or "displayed". While the distinction "floating" and "display" may make little difference in most online representations, it does for the embedded ce:alt-e-component.

A *displayed* e-component is contained in a ce:display element. In an electronic rendering, the displayed e-component should appear at the position where the ce:display occurs. What this means for each e-component type (e.g., audio) is up to the application. Non-electronic media display the embedded ce:alt-e-component instead, as if it were a displayed figure, see below.

A *floating* e-component is contained within ce:floats. A ce:float-anchor appears in the text, and acts as an anchor near to which the e-component should appear. Each floating e-component must have exactly one ce:float-anchor. (With one exception, see the description of ce:float-anchor.) Non-electronic media render the embedded ce:alt-e-component instead, as if it were a floating figure, see below.

The subelement ce:label contains the name or label of the electronic component. The caption (ce:caption), consisting of one or more paragraphs (ce:simple-para), contains descriptive text about the e-component. There can be multiple captions for different roles and/or languages; each caption must have a different role or language.

Optional subelements ce:alt-text can be used to capture alternative descriptions of the e-component. Possible values for the role attribute are short for a short description (30 words or less) and long for a long description. Different alternative texts must have a different role.

The optional subelement ce:source is used to describe the source of the figure. The optional ce:copyright element can be used if the copyright owner differs from the article's copyright owner.

The optional ce:keywords subelements are used to capture keywords for the e-component. They can be different from the keywords of the item. Normally these are not rendered but are used to improve searching and annotation. The same constraints as for the item keywords apply (e.g., allowed class values, nesting).

The attribute role is used to indicate the role or alternative presentation style of the e-component. The following roles are defined.

- article-plus
- author-interview
- editorial-video
- figure360
- interactive-plot
- protocols
- raw-data
- video-abstract

Additionally the following roles are defined for EMC content. These enable the creation of the required icons and associated links in EMC treaties.

- emc-arbre
- emc-autoevaluation
- emc-clinique
- emc-iconosup
- emc-interactive
- emc-legal
- emc-patient
- emc-podcast
- emc-quotidien
- emc-supplementaire
- emc-video

Alternative e-component

An optional ce:alt-e-component can be included in the e-component. This contains a ce:link to an object that is suitable for presentation in non-electronic media. For example, a significant frame (still image) from a video is an example of content of the alternative e-component.

Each ce:alt-e-component should be treated exactly like a ce:figure. All rules for figures apply. If the e-component is floating or displayed, the ce:alt-e-component will behave like a floating or displayed figure, respectively. Its label is the ce:label of the parent e-component, and its caption is the ce:alt-e-component's own caption. If the caption is absent this means that the alternative e-component has no caption; it does not mean that the parent's caption should be used.

Quite the opposite situation occurs if ce:alt-e-component is *not* encountered within a certain e-component in *non*-electronic media. It is up to the document's style to decide what to do with the e-component in such a situation; the default is to ignore the e-component altogether, another style might print a list of e-component captions.

Cross-referencing and nesting

The attribute id can be the target of a cross-reference or of a link from a foreign document. The ce:e-component can be, but does not have to be, referred to from within the text.

The element ce:e-component may be nested; this is mainly to be able to furnish each subcomponent with its own caption. The rules are identical to the rules for ce:figure. Within a nested ce:e-component it is not allowed to nest further ce:e-components.

Background

The element ce:e-component behaves much like ce:figure and ce:textbox. It is important to realize the implication of this. In HTML, the external files might well be referenced *directly*, i.e. they are accessed via the A element, e.g.

```
for more detail, see CNN's <A HREF="korea.mpg">report of
President Kim Dae-jung's visit to North-Korea</A>..
```

In XML files the element ce:inter-ref — the counterpart of HTML's A element — are *not* used to access external files belonging to the document. Instead, these files are accessed through the ce:link element embedded in ce:figure, ce:e-component, etc., and cross-references within the document are made using ce:cross-ref.

XML

```
<!ENTITY korea SYSTEM "korea" NDATA VIDEO>
<!ENTITY korea-frame SYSTEM "korea-frame" NDATA IMAGE>
...
for more detail, see CNN's <ce:cross-ref id="cr44" refid="ec1">report
of President Kim Dae-jung's visit to North-Korea</ce:cross-ref>.
<ce:e-component id="ec1">
  <ce:label>Video 1</ce:label>
  <ce:caption id="c4">
    <ce:simple-para id="sp5">Coverage of South-Korean President Kim
    Dae-jung's historic visit to North-Korea and welcome by
    Dear Leader Kim Jong-il on Pyongyang International
    Airport.</ce:simple-para>
  </ce:caption>
  <ce:copyright type="other" year="2000">CNN</ce:copyright>
  <ce:link locator="korea" xlink:type="simple" xlink:role=
      "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.2"
      xlink:href="pii:S0736585315000416/korea"/>
  <ce:alt-e-component id="aec1">
    <ce:link locator="korea-frame" xlink:type="simple" xlink:role=
      "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
      xlink:href="pii:S0736585315000416/korea-frame"/>
  </ce:alt-e-component>
</ce:e-component>
```

Version history

Prior to DTD 5.0, the element upi existed. It had a different purpose: the ce:e-component is specifically for electronic components such as audio and video clips and spreadsheets, etc., whereas upi could contain *any* object that should not appear in print (hence the name, unprinted item). The ce:e-component *can* appear in print — the ce:alt-e-component is shown instead.

In order to create portions of text, which may include figures, tables or electronic components, that should only appear in certain renditions of the document, the view attribute of various elements can be used, see Views (p. 193).

In CEP 1.1.0 a list of subelements ce:link and ce:e-component became possible. As from CEP 1.1.2, the caption has become repeatable for different languages and roles. Parameter entity %copyright; was introduced as well.

Subelement ce:source was introduced in CEP 1.1.3. The attribute role was added in

CEP 1.1.5. Subelement `ce:keywords` was added in CEP 1.2.0. In CEP 1.4.0 the subelement `ce:alt-text` was introduced.

ce:edition

Declaration

Model (CEPs 1.1.2–1.6.0)

```
<!ELEMENT  ce:edition            ( %string.data; )*>
```

Description

ce:edition contains the edition of an item.

Usage

The element ce:edition is used to capture the text that describes the edition of an item. The text contains no closing punctuation.

XML

```
<ce:edition>Fourth edition</ce:edition>
```

Version history

This element was introduced in CEP 1.1.2.

ce:editors

Declaration

Model (CEPs 1.1.2–1.1.5)

```
<!ELEMENT  ce:editors            ( ce:author-group+ )>
```

Model (CEPs 1.1.6–1.6.0)

```
<!ELEMENT  ce:editors            ( ce:author-group+ )>
<!ATTLIST  ce:editors
           role                  CDATA            #IMPLIED>
```

Description

The element ce:editors is a container element that is used for capturing the editors and their affiliations.

Usage

If the need arises to capture the names, degrees, affiliations of editors, the ce:editors container element is used, that consists of one or more ce:author-group elements. Within this container, the editor names and affiliations are captured as if they were authors. The fact that the ce:author-group elements are contained within ce:editors indicates that the persons, institutions or collaborations captured with ce:author or ce:collaboration are editors. In other words, the container element ce:editors gives the instruction “for author, read editor”.

All the rules for ce:author-group apply, including the rules for implicit and explicit couplings with the affiliations.

XML

```
<ce:editors>
  <ce:author-group id="aug1">
    <ce:text>Edited by</ce:text>
    <ce:author id="au1"
      author-id="S0033838916901118-8f878027073501c003ee301d9d8dbeec">
      <ce:given-name>Jerald P.</ce:given-name>
      <ce:surname>Kuhn</ce:surname>
      <ce:degrees>M.D.</ce:degrees>
    </ce:author>
    ...
  </ce:author-group>
</ce:editors>
```

Version history

This element was introduced in CEP 1.1.2. The role attribute was added in CEP 1.1.6.

ce:enunciation

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:enunciation        ( ce:label, ce:section-title?,
                                   ce:para+ )>
<!ATTLIST  ce:enunciation
           id                    ID              #IMPLIED
           role                  CDATA           #IMPLIED>
```

Description

The element ce:enunciation is used to capture enunciations. Enunciations is the catch-all phrase given to the category of structure elements that occur frequently in, e.g., mathematical papers: theorems, lemmas, propositions, proofs, corollaries, definitions, remarks, etc. However, enunciations are not restricted to mathematics.

Usage

The element ce:enunciation consists of a mandatory ce:label element, an optional title ce:section-title and one or more paragraphs. The ce:enunciation can be cross-referenced and therefore has an id attribute.

The ce:label contains the full designation of the enunciation, e.g. “Lemma 1.6” or “Remark”. The ce:section-title is used to capture additional information, e.g. “Fermat’s Theorem”.

XML

```
<ce:enunciation id="enun37">
  <ce:label>Theorem 1.12</ce:label>
  <ce:para id="p1">
    <ce:italic>Let</ce:italic>
    <mml:math altimg="si301.gif">
      <mml:mrow>
        <mml:mi>V</mml:mi>
      </mml:mrow>
    </mml:math>
    <ce:italic>be a set. Then the cardinality
      of the powerset of</ce:italic>
    <mml:math altimg="si302.gif">
      <mml:mrow>
        <mml:mi>V</mml:mi>
      </mml:mrow>
    </mml:math>,
    <mml:math altimg="si303.gif">
      <mml:mrow>
        <mml:mi mathvariant="script">P</mml:mi>
        <mml:mo stretchy="false">(</mml:mo>
        <mml:mi>V</mml:mi>
        <mml:mo stretchy="false">)</mml:mo>
      </mml:mrow>
```

```
    </mml:math>,
    <ce:italic>is strictly greater than the cardinality of</ce:italic>
    <mml:math altimg="si304.gif">
      <mml:mrow>
        <mml:mi>V</mml:mi>
      </mml:mrow>
    </mml:math>.
  </ce:para>
</ce:enunciation>
<ce:enunciation id="enun37proof">
  <ce:label>Proof</ce:label>
  <ce:para id="p2">
    Suppose not, and
    <mml:math altimg="si305.gif">
      <mml:mrow>
        <mml:mi>V</mml:mi>
        <mml:mo>&ne;</mml:mo>
        <mml:mi>&empty;</mml:mi>
      </mml:mrow>
    </mml:math>
    (for
    <mml:math altimg="si306.gif">
      <mml:mrow>
        <mml:mi>V</mml:mi>
        <mml:mo>=</mml:mo>
        <mml:mi>&empty;</mml:mi>
      </mml:mrow>
    </mml:math>
    the theorem is clear). Then there is a bijective mapping
    <mml:math altimg="si307.gif">
      <mml:mrow>
        <mml:mi>f</mml:mi>
        <mml:mo>:</mml:mo>
        <mml:mi>V</mml:mi>
        <mml:mo>&rarr;</mml:mo>
        <mml:mi mathvariant="script">P</mml:mi>
        <mml:mo stretchy="false">(</mml:mo>
        <mml:mi>V</mml:mi>
        <mml:mo stretchy="false">)</mml:mo>
      </mml:mrow>
    </mml:math>
    Let
    <mml:math altimg="si308.gif">
      <mml:mrow>
        <mml:mi>a</mml:mi>
        <mml:mo>=</mml:mo>
        <mml:msup>
          <mml:mi>f</mml:mi>
          <mml:mrow>
            <mml:mo>-</mml:mo>
            <mml:mn>1</mml:mn>
          </mml:mrow>
        </mml:msup>
        <mml:mo stretchy="false">(</mml:mo>
```

```
        <mml:mo stretchy="false"></mml:mo>
        <mml:mi>x</mml:mi>
        <mml:mo>&isin;</mml:mo>
        <mml:mi>V</mml:mi>
        <mml:mo stretchy="false">|</mml:mo>
        <mml:mi>x</mml:mi>
        <mml:mo>&notin;</mml:mo>
        <mml:mi>f</mml:mi>
        <mml:mo stretchy="false">(</mml:mo>
        <mml:mi>x</mml:mi>
        <mml:mo stretchy="false">)</mml:mo>
        <mml:mo stretchy="false"></mml:mo>
        <mml:mo stretchy="false">)</mml:mo>
      </mml:mrow>
    </mml:math>.
    Then
    <mml:math altimg="si309.gif">
      <mml:mrow>
        <mml:mi>a</mml:mi>
        <mml:mo>&isin;</mml:mo>
        <mml:mi>f</mml:mi>
        <mml:mo stretchy="false">(</mml:mo>
        <mml:mi>a</mml:mi>
        <mml:mo stretchy="false">)</mml:mo>
        <mml:mo>&LeftRightArrow;</mml:mo>
        <mml:mi>a</mml:mi>
        <mml:mo>&notin;</mml:mo>
        <mml:mi>f</mml:mi>
        <mml:mo stretchy="false">(</mml:mo>
        <mml:mi>a</mml:mi>
        <mml:mo stretchy="false">)</mml:mo>
      </mml:mrow>
    </mml:math>. Contradiction.<ce:hsp/>&squ;
  </ce:para>
</ce:enunciation>
```

Presentation

Theorem 1.12. *Let V be a set. Then the cardinality of the powerset of V, $\mathcal{P}(V)$, is strictly greater than the cardinality of V.*

Proof. Suppose not, and $V \neq \emptyset$ (for $V = \emptyset$ the theorem is clear). Then there is a bijective mapping $f : V \to \mathcal{P}(V)$. Let $a = f^{-1}(\{x \in V \mid x \notin f(x)\})$. Then $a \in f(a) \Leftrightarrow a \notin f(a)$. Contradiction. □

Explanation

Note that in this example certain spaces are "generated" by the XML. For instance, the space between "*Let*" and "V" is generated by the whitespace characters between `</ce:italic>` and `<mml:math altimg="si301.gif">`. See also the section Whitespace in the XML file (p. 12).

XML

```
<ce:enunciation id="25">
  <ce:label>Theorem 1.25</ce:label>
  <ce:section-title id="stPT">Pythagoras' Theorem</ce:section-title>
  <ce:para id=pPT"><ce:italic>In a right-angled triangle the square of
    the hypotenuse is equal to the sum of the squares of the other
    two sides.</ce:italic></ce:para>
```

```
</ce:enunciation>
```

Presentation

Theorem 1.25 (Pythagoras' Theorem)**.** *In a right-angled triangle the square of the hypotenuse is equal to the sum of the squares of the other two sides.*

Version history

Prior to DTD 5.0, this element was called `enun`.

Copy edit considerations

It is well-known that certain enunciations, such as theorems and lemmas, are usually rendered in italics while others, such as definitions, are not. The `ce:enunciation` element has no provision to indicate a type; italics must be indicated explicitly.

Rendering notes

The `ce:label` element is rendered in the style of the journal — i.e, if the style is to present the `ce:label` in bold, this should not be explicitly marked up. The `ce:section-title`, whose standard presentation is italics, generates parentheses. Closing full stops are generated.

Light reading

`ce:enunciation` may not be used in CONTENTS-ENTRY-ONLY, HEAD-ONLY or HEAD-AND-TAIL files.

ce:exam-answers

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:exam-answers       ( ce:section-title?, %parsec; )>
<!ATTLIST  ce:exam-answers
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED
           view                  %view;            'all'>
```

Description

ce:exam-answers is used to capture the answers for a Continuous Medical Examination or similar.

Usage

ce:exam-answers has a similar content model to ce:section. Therefore it can accommodate a wide range of forms of examination answers. However, it can neither have a ce:label nor subsections.

XML

```
<ce:exam-answers id="exa1">
  <ce:section-title id="st4">Answers ...</ce:section-title>
  <ce:para id="p142">Identification ...</ce:para>
  <ce:para id="p143">
    <ce:display>
      <ce:table id="cme-ans" frame="none">
        <ce:caption id="c3">Questions 1-30, ...</ce:caption>
        <tgroup cols="4" colsep="0" rowsep="0" align="char">
          <tbody>
            <colspec colnum="1" colwidth="5pc" char="." charoff="50">
            <colspec colnum="2" colwidth="5pc" char="." charoff="50">
            <colspec colnum="3" colwidth="5pc" char="." charoff="50">
            <colspec colnum="4" colwidth="5pc" char="." charoff="50">
            <row>
              <entry>1. c</entry>
              <entry>9. b</entry>
              <entry>17. a</entry>
              <entry>25. a</entry>
            </row>
            ...
          </tbody></tgroup>
      </ce:table>
    </ce:display>
  </ce:para>
</ce:exam-answers>
```

Version history

This element is new in DTD 5. The view attribute was added in CEP 1.1.0.

ce:exam-questions

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:exam-questions     ( ce:section-title?, %parsec; )>
<!ATTLIST  ce:exam-questions
           id                    ID               #IMPLIED
           role                  CDATA            #IMPLIED
           view                  %view;           'all'>
```

Description

ce:exam-questions is used to capture the questions for a Continuous Medical Examination or similar.

Usage

ce:exam-questions has a similar content model to ce:section. Therefore it can accommodate a wide range of forms of examination questions. However, it can neither have a ce:label nor subsections.

An example of examination questions is shown in Figs. 9 and 10.

Version history

This element is new in DTD 5. The view attribute was added in CEP 1.1.0.

***FERTILITY AND STERILITY*®**
CONTINUING MEDICAL EDUCATION QUESTIONS

To obtain the 15 Category I CME credits, the **entire** examination of lessons from Volume 81 of *Fertility and Sterility*® must be taken. The answer sheet will be available in the June 2004 issue and will be graded. A 70% passing score must be achieved and documentation will be mailed with the corrected examination to the participant.

SART and ASRM. 81:1207–20 (Lesson 16)

Objective: To summarize the procedures and outcomes of assisted reproductive technologies (ART) initiated in the United States during 2000

1. For all IVF cycles in the Society for Assisted Reproductive Technology (SART) 2000 registry, what was the approximate percentage of singleton deliveries?
   a) 60%
   b) 65%
   c) 70%
   d) 75%
   e) 80%
2. Using deliveries per transfer from the SART 2000 data, what is the approximate reduced likelihood for success in a woman aged >40 compared with a woman <35 years?
   a) 40%
   b) 50%
   c) 60%
   d) 70%
   e) 80%

Virro et al. 81:1289–95 (Lesson 17)

Objective: To determine the relationship between sperm chromatin structure assay parameters (DNA fragmentation index, DFI; high DNA stainability, HDS) and IVF and IVF/intracytoplasmic sperm injection outcomes

1. When fertilization is on day 1 and blastocyst development is on day 5, on which day does embryo genome expression begin?
   a) day 1
   b) day 2
   c) day 3
   d) day 4
   e) day 5

⋮

Figure 9: An example of Continuing Medical Education Questions. Its XML coding can be found in Fig. 10.

```
<ce:exam-questions id=+eq1">
  <ce:section-title id="st12"><ce:italic>FERTILITY AND STERILITY</ce:italic>&reg;
    CONTINUING MEDICAL EDUCATION QUESTIONS</ce:section-title>
  <ce:para id="p13">To obtain the 15 Category I CME credits, the
    <ce:bold>entire</ce:bold> examination of lessons from Volume 81 of
    <ce:italic>Fertility and Sterility</ce:italic>&reg; must be
    taken. The answer sheet will be available in the June 2004 issue
    and will be graded. A 70% passing score must be achieved and
    documentation will be mailed with the corrected examination to the
    participant.</ce:para>
  <ce:section id="s10">
    <ce:section-title id="st13">SART and ASRM. 81:1207&ndash;20 (Lesson 16)</ce:section-title>
    <ce:para id="p14"><ce:italic>Objective:</ce:italic> To summarize the
      procedures and outcomes of assisted reproductive technologies
      (ART) initiated in the United States during 2000</ce:para>
    <ce:list id="list53">
      <ce:list-item id="listi88">
        <ce:label>1.</ce:label>
        <ce:para id="p15">For all IVF cycles in the Society for Assisted
          Reproductive Technology (SART) 2000 registry, what was the
          approximate percentage of singleton deliveries?</ce:para>
        <ce:list id="list54">
          <ce:list-item id="listi89"><ce:label>a)</ce:label><ce:para id="p15a">60%</ce:para></ce:list-item>
          <ce:list-item id="listi90"><ce:label>b)</ce:label><ce:para id="p15b">65%</ce:para></ce:list-item>
          <ce:list-item id="listi91"><ce:label>c)</ce:label><ce:para id="p15c">70%</ce:para></ce:list-item>
          <ce:list-item id="listi92"><ce:label>d)</ce:label><ce:para id="p15d">75%</ce:para></ce:list-item>
          <ce:list-item id="listi93"><ce:label>e)</ce:label><ce:para id="p15e">80%</ce:para></ce:list-item>
        </ce:list>
      </ce:list-item>
      <ce:list-item id="listi89">
        <ce:label>2.</ce:label>
        <ce:para id="p16">Using deliveries per transfer from the SART 2000
          data, what is the approximate reduced likelihood for success
          in a woman aged &gt;40 compared with a woman &lt;35
          years?</ce:para>
        <ce:list id="listi90">
          <ce:list-item id="listi94"><ce:label>a)</ce:label><ce:para id="p16a">40%</ce:para></ce:list-item>
          <ce:list-item id="listi95"><ce:label>b)</ce:label><ce:para id="p16b">50%</ce:para></ce:list-item>
          <ce:list-item id="listi96"><ce:label>c)</ce:label><ce:para id="p16c">60%</ce:para></ce:list-item>
          <ce:list-item id="listi97"><ce:label>d)</ce:label><ce:para id="p16d">70%</ce:para></ce:list-item>
          <ce:list-item id="listi98"><ce:label>e)</ce:label><ce:para id="p16e">80%</ce:para></ce:list-item>
        </ce:list>
      </ce:list-item>
    </ce:list>
  </ce:section>
  <ce:section id="s11">
    <ce:section-title id="st14">Virro et al. 81:1289&ndash;95 (Lesson 17)</ce:section-title>
    <ce:para id="p17"><ce:italic>Objective:</ce:italic> To determine the
      relationship between sperm chromatin structure assay parameters
      (DNA fragmentation index, DFI; high DNA stainability, HDS) and
      IVF and IVF/intracytoplasmic sperm injection outcomes</ce:para>
    <ce:list id="list54">
      <ce:list-item id="listi95">
        <ce:label>1.</ce:label>
        <ce:para id="p18">When fertilization is on day 1 and blastocyst
          development is on day 5, on which day does embryo genome
          expression begin?</ce:para>
        <ce:list id="list55">
          <ce:list-item id="listi99"><ce:label>a)</ce:label><ce:para id="p18a">day 1</ce:para></ce:list-item>
          <ce:list-item id="listi100"><ce:label>b)</ce:label><ce:para id="p18b">day 2</ce:para></ce:list-item>
          <ce:list-item id="listi101"><ce:label>c)</ce:label><ce:para id="p18c">day 3</ce:para></ce:list-item>
          <ce:list-item id="listi102"><ce:label>d)</ce:label><ce:para id="p18d">day 4</ce:para></ce:list-item>
          <ce:list-item id="listi103"><ce:label>e)</ce:label><ce:para id="p18e">day 5</ce:para></ce:list-item>
        </ce:list>
      </ce:list-item>
      .
      .
      .
    </ce:list>
  </ce:section>
  ...
</ce:exam-questions>
```

Figure 10: XML of the examination questions shown in Fig. 9.

ce:exam-reference

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:exam-reference     ( ce:inter-ref )>
<!ATTLIST  ce:exam-reference
           view                  %view;            'all'>
```

Description

The element ce:exam-reference is used to create a link to an associated examination that is in a separate article.

Usage

Sometimes the examination associated with an article is not published as part of the article but as a separate article. The element ce:exam-reference can be used to create a link in the article to the examination.

Only the values pii and doi for the scheme in xlink:href are allowed.

XML

```
<ce:exam-reference>
  <ce:inter-ref id="interref7"
    xlink:href="pii:S0004-3702(02)00193-5">See the examination
    questions in the following article.</ce:inter-ref>
</ce:exam-reference>
```

Version history

This element is new in DTD 5. The view attribute was added in CEP 1.1.0.

Rendering notes

The text of ce:exam-reference, i.e., the text of the contained ce:inter-ref element, is rendered as a separate paragraph.

ce:figure

Declaration

Model (CEPs 1.1.0–1.1.1)

```
<!ELEMENT  ce:figure            ( ce:label?, ce:caption?, ce:copyright?,
                                  ( ce:link | ce:figure )+ )>
<!ATTLIST  ce:figure
           id                   ID                #IMPLIED>
```

Model (CEP 1.1.2)

```
<!ELEMENT  ce:figure            ( ce:label?, ce:caption*, ( %copy-
                                  right; )?, ( ce:link | ce:figure )+ )>
<!ATTLIST  ce:figure
           id                   ID                #IMPLIED>
```

Model (CEPs 1.1.3–1.1.5)

```
<!ELEMENT  ce:figure            ( ce:label?, ce:caption*, ce:source?,
                                  ( %copyright; )?, ( ce:link |
                                  ce:figure )+ )>
<!ATTLIST  ce:figure
           id                   ID                #IMPLIED>
```

Model (CEP 1.1.6)

```
<!ELEMENT  ce:figure            ( ce:label?, ce:caption*, ce:source?,
                                  ( %copyright; )?, ( ce:link |
                                  ce:figure )+ )>
<!ATTLIST  ce:figure
           id                   ID                #IMPLIED
           role                 CDATA             #IMPLIED>
```

Model (CEP 1.2.0)

```
<!ELEMENT  ce:figure            ( ce:label?, ce:caption*, ce:source?,
                                  ( %copyright; )?, ce:keywords*,
                                  ( ce:link | ce:figure )+ )>
<!ATTLIST  ce:figure
           id                   ID                #IMPLIED
           role                 CDATA             #IMPLIED>
```

Model (CEPs 1.4.0–1.6.0)

```
<!ELEMENT  ce:figure            ( ce:label?, ce:caption*, ce:alt-
                                  text*, ce:source?, ( %copy-
                                  right; )?, ce:keywords*, ( ce:link |
                                  ce:figure )+ )>
<!ATTLIST  ce:figure
           id                   ID                #IMPLIED
           role                 CDATA             #IMPLIED>
```

Description

The element ce:figure is used to insert a figure in the document.

Usage

Most articles contain artwork in one form or another, and the element ce:figure is used to insert the figure. The attribute id is used when referring to the figure.

XML

```
<ce:cross-ref id="cr5" refid="fig4">Fig. 4</ce:cross-ref>
<ce:cross-ref id="cr6" refid="fig4">Fig. 4(a)</ce:cross-ref>
```

Explanation

It is common that the text refers to parts of a figure while in fact the whole figure is cross-referenced. Indeed, in most cases the subfigure will be an integral part of the external artwork file.

Attribute role can be used to assign a specific role. No roles are currently defined.

Three kinds of figure are distinguished: floating and displayed figures, and figures in graphical abstracts. Floating figures are embedded in a ce:floats element, displayed figures are embedded in a ce:display element, and a figure in a graphical abstract is the (optional) subelement of ce:abstract behind ce:abstract-sec. The latter play a special role in a graphical abstract (ce:abstract): these are floating, and are not referred to. Their placement is governed by the style of the graphical abstract. There can be only one such figure per abstract. Otherwise, no floating figures may occur in an abstract. (Cross-references to figures are, however, allowed, albeit highly discouraged.)

Floating figures are figures which appear near a point in the text where they are mentioned, mostly at the top or the bottom of the page, spanning one or more columns if needed. Floating figures must be referred to from within the document. To indicate where a floating figure should appear, the element ce:float-anchor is used, referring to a ce:figure within ce:floats. Hence, a floating figure has at least one ce:cross-ref or ce:cross-refs pointing to it, and exactly one ce:float-anchor. (With one exception, see the description of ce:float-anchor.)

XML

```
<ce:cross-ref id="cr5" refid="fig4">Fig. 4</ce:cross-ref>
<ce:float-anchor refid="fig4"/>
```

XML

```
<ce:cross-refs id="crs6" refid="fig6 fig7">Figs. 6 and 7</ce:cross-ref>

<ce:float-anchor refid="fig6"/><ce:float-anchor refid="fig7"/>
```

A displayed figure, obtained by embedding the figure in a ce:display element, is a figure which is displayed on a line of its own, separated from the surrounding text by white space, on the spot where it appears in the file.

Figures can be nested one level deep, i.e., a figure within a figure cannot contain yet another figure.

The subelement ce:label contains the name of the figure, e.g. “Fig. 2”, “Diagram B”, “Scheme 6” or “Plate III”. For floating figures it is mandatory.

The optional subelement ce:caption contains descriptive text of the figure in the form of one or more simple paragraphs, ce:simple-para. As from CEP 1.1.2, multiple captions for different languages and/or roles are supported. Different captions must have a different role or language.

Optional subelements ce:alt-text can be used to capture alternative descriptions of the image. For a short description (30 words or less) attribute role with value short must be

used. It can be used to populate HTML's `alt` attribute. For a long description value `long` must be used. Different alternative texts must have a different role.

XML

```
<ce:figure id="f055">
...
<ce:alt-text id="at070" role="short">Painting by John William
  Waterhouse, 'The lady of Shalott', 1888.</ce:alt-text>
<ce:alt-text id="at071" role="long">This painting illustrates Alfred
  Tennyson's poem 'The Lady of Shalott'. Draped over the boat is the
  fabric the lady wove in a tower near Camelot. But she brought a
  curse on herself by looking directly at Sir Lancelot. With her
  right hand she lets go of the chain mooring the boat. Her mouth is
  slightly open, as she sings 'her last song'. She stares at a
  crucifix lying in front of her. Beside it are three candles, often
  used to symbolise life. Two have blown out. This suggests her life
  will end soon, as she floats down the river.</ce:alt-text>
...
</ce:figure>
```

The optional subelement `ce:source` is used to describe the source of the figure. The optional subelement `ce:copyright` is used if the copyright owner of the figure is different from that of the item.

The optional `ce:keywords` subelements are used to capture keywords for the figure. They can be different from the keywords of the item. Normally these are not rendered but are used to improve searching and annotation. The same constraints as for the item keywords apply (e.g., allowed class values, nesting).

Figures without subfigures

In this subsection it is assumed that the `ce:figure` does not contain any `ce:figure` subelements.

One or more `ce:link` elements provide the link with the external artwork file(s). The artwork files are to be displayed in the order of the `ce:link` elements.

XML

```
<!ENTITY gr2ab SYSTEM "gr2ab" NDATA IMAGE>
<!ENTITY gr2c SYSTEM "gr2c" NDATA IMAGE>
...
<ce:figure id="fig2">
  <ce:label>Fig. 2</ce:label>
  <ce:caption id="c2">
    <ce:simple-para id="sp2">Caption, caption, caption ...</ce:simple-para>
  </ce:caption>
  <ce:link locator="gr2ab" xlink:type="simple" xlink:role=
    "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
    xlink:href="pii:S1570870515002772/gr2ab"/>
  <ce:link locator="gr2c" xlink:type="simple" xlink:role=
    "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
    xlink:href="pii:S1570870515002772/gr2c"/>
</ce:figure>
</ce:floats>
```

Presentation

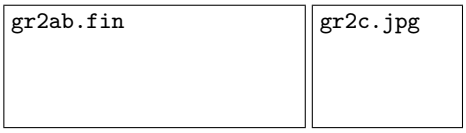


Fig. 2. Caption, caption, caption ...

Figures with nested figures

Instead of just ce:links, the top-level figure may contain any combination of ce:link and ce:figure. Nested ce:figures are used if the subfigures need their own captions or copyright statement. A nested ce:figure may only contain ce:links, no ce:figures.

The qualification “displayed” or “floating” is irrelevant for a subfigure. The subfigures are displayed within the main figure in the order which they appear.

Nested figures may have an id and may be the target of a ce:cross-ref. However, the effect is undefined: “clicking” on the cross-reference may lead to the whole figure or the nested figure alone. It is recommended only to cross-reference the top-level figure.

XML

```
<!ENTITY gr2ab SYSTEM "gr2ab" NDATA IMAGE>
<!ENTITY gr2c SYSTEM "gr2c" NDATA IMAGE>
...
<ce:figure id="fig2">
  <ce:label>Fig. 2</ce:label>
  <ce:caption id="c4">
    <ce:simple-para id="sp8">(a) Caption. (b) Caption.
      (c) Caption ...</ce:simple-para>
  </ce:caption>
  <ce:link locator="gr2ab" xlink:type="simple" xlink:role=
    "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
    xlink:href="pii:S1570870515002772/gr2ab"/>
  <ce:figure id="fig2c">
    <ce:copyright type="other" yr="2000">Copyright</ce:copyright>
    <ce:link locator="gr2c" xlink:type="simple" xlink:role=
      "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
      xlink:href="pii:S1570870515002772/gr2c"/>
  </ce:figure>
</ce:figure>
```

Presentation

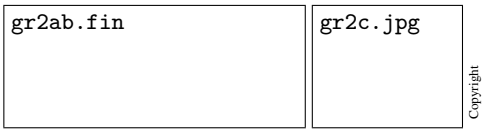


Fig. 2. (a) Caption. (b) Caption. (c) Caption ...

XML

```
<!ENTITY gr3a SYSTEM "gr3a" NDATA IMAGE>
<!ENTITY gr3b SYSTEM "gr3b" NDATA IMAGE>
...
<ce:figure id="fig3">
  <ce:label>Fig. 3</ce:label>
  <ce:caption id="c6">
    <ce:simple-para id="sp13">Caption, caption, caption ...</ce:simple-para>
  </ce:caption>
```

```
<ce:figure id="fig3I">
  <ce:caption id="c7">
    <simple-para id="sp14">(a) Sub I.</ce:simple-para>
  </ce:caption>
  <ce:link locator="gr3a" xlink:type="simple" xlink:role=
    "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
    xlink:href="pii:S1570870515002772/gr3a"/>
</ce:figure>
<ce:figure id="fig3II">
  <ce:caption id="c8">
    <ce:simple-para id="sp15">(b) Sub II.</ce:simple-para>
  </ce:caption>
  <ce:link locator="gr3b" xlink:type="simple" xlink:role=
    "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
    xlink:href="pii:S1570870515002772/gr3b"/>
</ce:figure>
</ce:figure>
```

Presentation

(a) Sub I. (b) Sub II.

Fig. 3. Caption, caption, caption . . .

External entities

In practice, the external entities used in the `ce:link` element within a figure will be of notation data type `IMAGE`. Usage of the other notation types is presently undefined.

Version history

Prior to DTD 5.0, this element was called `fig`. As from CEP 1.1.2, multiple captions are supported. Parameter entity `%copyright;` was introduced as well. Subelement `ce:source` was introduced in CEP 1.1.3.

The `role` attribute was added in CEP 1.1.6. Subelement `ce:keywords` was added in CEP 1.2.0. In CEP 1.4.0 the subelement `ce:alt-text` was introduced.

Copy edit considerations

In some articles, figures called, say, “Fig. 5(a)” and “Fig. 5(b)” exist, which are to be treated as floating or displayed objects in their own right. These figures are called *improper subfigures*. In such cases, it is inappropriate to use the nested `ce:figure` construction; these figures are independent top-level `ce:figure`s.

Light reading

No floating `ce:figure` may be used in CONTENTS-ENTRY-ONLY, HEAD-ONLY or HEAD-AND-TAIL files.

See also

`ce:abstract`, `ce:display`, `ce:float-anchor`, `ce:floats`, `ce:inline-figure`, `ce:keywords`

ce:first-page

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:first-page        ( %richstring.data; )*>
```

Description

The first page of an item called by a hub file is captured using ce:first-page.

Usage

See ce:pages.

Version history

This element was added in CEP 1.1.0.

See also

ce:include-item, ce:last-page

ce:float-anchor

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:float-anchor       EMPTY>
<!ATTLIST  ce:float-anchor
           refid                 IDREF            #REQUIRED>
```

Description

The element ce:float-anchor is a marker to indicate that a floating figure, table, textbox or e-component must appear in the vicinity.

Usage

To indicate that a figure, table, textbox or e-component is “floating”, it is embedded within ce:floats, collected at the beginning of the document.

The anchor, in the form of the empty ce:float-anchor element with a refid attribute pointing to the figure, table, textbox or e-component within ce:floats, tells the rendering application that the float should be placed at a suitable place near the anchor. This anchor is often, but not always, placed after the first cross-reference to that object. There must be exactly one anchor for each floating object. (With one exception: it is possible that a paragraph containing a float anchor is present in two views. In such a case there are two float anchors for the floating object. This should be avoided when possible.)

The ce:float-anchor itself generates no presentation, it marks the place near which the floating object must appear. Its refid attribute may not point to any object outside ce:floats.

See also

ce:display, ce:e-component, ce:figure, ce:floats, ce:table

ce:floats

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:floats            ( ce:figure*, ce:table*, ce:textbox*,
                                  ce:e-component* )>
```

Description

The element ce:floats is a container element for floating figures, tables, textboxes and e-components.

Usage

To indicate that a figure, table, textbox or e-component is “floating”, it should be embedded in a ce:floats element, a container for all floats located at the beginning of the document, as a child of the top element.

The approximate position of the floating object is indicated by a ce:float-anchor element. This anchor is often, but not always, placed near the first cross-reference to that object.

Version history

Prior to DTD 5.0, floats were placed within the in-line text.

See also

ce:display, ce:e-component, ce:figure, ce:float-anchor, ce:table

ce:footnote

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:footnote          ( ce:label, ce:note-para+ )>
<!ATTLIST  ce:footnote
           id                   ID              #REQUIRED>
```

Model (CEPs 1.1.6–1.6.0)

```
<!ELEMENT  ce:footnote          ( ce:label, ce:note-para+ )>
<!ATTLIST  ce:footnote
           id                   ID              #REQUIRED
           role                 CDATA           #IMPLIED>
```

Description

Footnotes are captured using ce:footnote.

Usage

The element ce:footnote is used for footnotes. Footnotes are objects, which in print appear at the bottom of the page. The ce:footnote element contains the footnote text and additionally it is an “anchor” nearest to which the footnote should appear. The actual reference in the text is made by a ce:cross-ref.

Each footnote must be referred to. It has an attribute id so that it can be referenced. The mandatory subelement ce:label contains the number of the footnote. The footnote text itself consists of one or more note paragraphs, ce:note-para.

XML

```
<ce:cross-ref id="cr8" refid="fn1"><ce:sup>1</ce:sup></ce:cross-ref>

<ce:footnote id="fn1">
  <ce:label>1</ce:label>
  <ce:note-para id="np3">In XML files used for online rendering, it is
    possible ... </ce:note-para>
</ce:footnote>
```

Version history

The role attribute was added in CEP 1.1.6.

See also

ce:article-footnote, ce:table-footnote, ce:cross-refs

ce:formula

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:formula          ( ce:label?, ( mml:math | ce:chem |
                                 ce:link | ce:formula+ ) )>
<!ATTLIST  ce:formula
           id                  ID              #IMPLIED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:formula          ( ce:label?, ( %math; | ce:chem |
                                 ce:link | ce:formula+ ) )>
<!ATTLIST  ce:formula
           id                  ID              #IMPLIED>
```

Description

A displayed formula is captured using ce:formula.

Usage

The element ce:formula is one of the possible subelements of ce:display. It contains a mathematical formula mml:math, a strip-in image (p. 23) of a mathematical formula, a chemical formula ce:chem, a ce:link to the image of a formula, or nested ce:formula elements. The number of the formula is captured in the optional ce:label element.

A mml:math element in a ce:formula should not have the value block for the display attribute, but rather the default value inline. This is so because it is inline with respect to the containing ce:formula and to the formula number that the element ce:label generates.

XML

```
<ce:formula id="ch2">
  <ce:label>(2)</ce:label>
  <ce:chem>TLC (CH<ce:inf>2</ce:inf>C<ce:inf>l2</ce:inf>/MeOH):
    <ce:it>R</ce:it><ce:inf>f</ce:inf>=0.45; IR:
    3423 cm<ce:sup>-1</ce:sup> (NH).</ce:chem>
</ce:formula>
```

Presentation

TLC (CH_2C_{12}/MeOH): $R_f = 0.45$; IR: 3423 cm^{-1} (NH). (2)

XML

```
<ce:formula id="f7a"><ce:label>(7a)</ce:label>
<mml:math altimg="si56.gif">
  <mml:mi>&alpha;</mml:mi>
  <mml:mo>=</mml:mo>
  <mml:mo>&int;</mml:mo>
  <mml:mfrac>
    <mml:mrow>
      <mml:msup>
        <mml:mi mathvariant="normal">d</mml:mi>
        <mml:mn>3</mml:mn>
      </mml:msup>
```

```
        <mml:mi>k</mml:mi>
      </mml:mrow>
      <mml:msup>
        <mml:mrow>
          <mml:mo>(</mml:mo>
          <mml:mn>2</mml:mn>
          <mml:mi>&pi;</mml:mi>
          <mml:mo>)</mml:mo>
        </mml:mrow>
        <mml:mn>3</mml:mn>
      </mml:msup>
    </mml:mfrac>
    <mml:mrow>
      <mml:mo>&langle;</mml:mo>
      <mml:mi mathvariant="bold">k</mml:mi>
      <mml:mo>|</mml:mo>
      <mml:mi mathvariant="bold">k</mml:mi>
      <mml:mo>+</mml:mo>
      <mml:mi mathvariant="bold">q</mml:mi>
      <mml:mo>&rangle;</mml:mo>
    </mml:mrow>
  </mml:math>
  </ce:formula>
```

Presentation

$$\alpha = \int \frac{\mathrm{d}^3 k}{(2\pi)^3} \, \langle \mathbf{k} | \mathbf{k} + \mathbf{q} \rangle \tag{7a}$$

Numbers and nesting depth

A displayed formula (`ce:formula` element) may contain other displayed formulae, in which case the main (outer) `ce:formula` may only consist of an optional `ce:label` element and one or more nested `ce:formula`s. Displayed formulae contained in a displayed formula may *not* themselves contain displayed formulae.

Like all referenceable elements, a displayed formula must have a `ce:label` element and a value for the `id` attribute if it is referred to. This holds both for top-level and for lower-level `ce:formula` elements.

The rule is more complicated for a complicated displayed formula, i.e. a displayed formula that contains nested subformulae. If a complicated displayed formula is referred to, it need not have a `ce:label` element, provided all of its subformulae have a `ce:label` element.

This is summarized in the following example:

XML

```
<ce:formula id="eq04"><ce:label>(4)</ce:label> ..... </ce:formula>
<ce:formula id="eq05">
  <ce:formula id="eq5a"><ce:label>(5a)</ce:label> ..... </ce:formula>
  <ce:formula id="eq5b"><ce:label>(5b)</ce:label> ..... </ce:formula>
</ce:formula>

Eqs. <ce:cross-refs id="cr78" refid="eq04 eq05">(4) and (5)</ce:cross-refs>
```

The requirements for nested displayed formulae are described by three rules. The first two are:

1. The `ce:label` element may occur at the nested level.

2. ce:label elements may not occur at both the main level and the nested level.

These rules imply the following error table for nested equations. Here a 0 or 1 means that an id or a ce:label is absent or present.

Table 5: Error table for nested equations

	Main level		Nested level		
Case	id	no	id's	no's	Error status
1	0	0	0	0	OK
2	0	0	0	1	OK
3	0	0	1	0	Error: Referenceable object should have a ce:label element
4	0	0	1	1	OK
5	0	1	0	0	OK
6	0	1	0	1	Error: Formula with ce:label element in formula with ce:label element
7	0	1	1	0	Error: Referenceable object should have a ce:label element
8	0	1	1	1	Error: Formula with ce:label element in formula with ce:label element
9	1	0	0	0	Error: Referenceable object should have a ce:label element
10	1	0	0	1	OK
11	1	0	1	0	Error: Referenceable object should have a ce:label element
12	1	0	1	1	OK
13	1	1	0	0	OK
14	1	1	0	1	Error: Formula with ce:label element in formula with ce:label element
15	1	1	1	0	Error: Referenceable object should have a ce:label element
16	1	1	1	1	Error: Formula with ce:label element in formula with ce:label element

Additionally there is a rule that if the id attribute appears at the main level, it is not possible to mix unnumbered and numbered subequations. For example, in the example above, it is not allowed to leave out one of the ce:label elements (5a) or (5b). To be precise:

3. If there is an id attribute at the main level and a ce:label element at the nested level, then all nested formulae must have a ce:label element.

Version history

Prior to DTD 5.0, displayed formulae were directly captured in the element fd, without top mml:math or ce:chem element. Element ce:math was added in CEP 1.5.0.

Rendering notes

A formula element is rendered in the block that is generated by its parent ce:display element. If it has a label, its space is split into two areas. In the formula area, which is the larger (usually left-hand) area, the contained formula is rendered as an inline formula. In the label area, which is the other area, the formula label is rendered.

See also

ce:math

ce:further-reading

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:further-reading    ( ce:section-title, ce:further-reading-
                                   sec+ )>
<!ATTLIST  ce:further-reading
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED
           view                  %view;            'all'>
```

Model (CEPs 1.1.6–1.4.0)

```
<!ELEMENT  ce:further-reading    ( ce:section-title?, ce:further-reading-
                                   sec+ )>
<!ATTLIST  ce:further-reading
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED
           view                  %view;            'all'>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:further-reading    ( ce:section-title?, ce:intro?,
                                   ce:further-reading-sec+ )>
<!ATTLIST  ce:further-reading
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED
           view                  %view;            'all'>
```

Description

The element ce:further-reading contains a list of bibliographic references which are meant as further reading material.

Usage

The element ce:further-reading is an optional part of the tail. It contains bibliographic references which are meant for further reading.

A further-reading list has a ce:section-title, which contains the name of the list, e.g. "Further reading". The optional ce:intro contains a brief introduction. It can also contain a simple statement like "Full reference list available online…". The list itself contains one or more sections, ce:further-reading-sec. Each ce:further-reading-sec can also have a ce:section-title, which is a second-order heading. All further-reading sections except the first must have a ce:section-title, for the first this is optional.

The further-reading section contains any combination of bibliographic references, ce:bib-reference, and paragraphs, ce:para. Unlike the ce:bib-references within an ordinary bibliography (ce:bibliography), each ce:bib-reference may or may not be referred to by means of ce:cross-ref or ce:cross-refs. In further-reading lists, the references are often interspersed with text; this is why paragraphs can be inserted between the entries. This is different from the sb:comment and ce:note which exist within ce:bib-reference, since those elements belong uniquely to the specific reference.

Version history

The `view` attribute was added in CEP 1.1.0. Subelement `ce:section-title` was made optional in CEP 1.1.6. Subelement `ce:intro` was added in CEP 1.5.0.

Light reading

`ce:further-reading` is part of HEAD-AND-TAIL material.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

ce:further-reading-sec

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:further-reading-sec( ce:section-title?, ( ce:para |
                                   ce:bib-reference )+ )>
<!ATTLIST  ce:further-reading-sec
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED>
```

Model (CEPs 1.1.6, 1.2.0)

```
<!ELEMENT  ce:further-reading-sec( ce:section-title?, ( ce:para |
                                   ce:bib-reference )+ )>
<!ATTLIST  ce:further-reading-sec
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED
           view                  %view;            'all'>
```

Model (CEPs 1.4.0–1.6.0)

```
<!ELEMENT  ce:further-reading-sec( ce:section-title?, ( ce:para |
                                   ce:bib-reference )+, ce:further-
                                   reading-sec* )>
<!ATTLIST  ce:further-reading-sec
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED
           view                  %view;            'all'>
```

Description

The element ce:further-reading-sec is a section within the further-reading list. Further-reading sections can be nested one level deep.

Usage

See ce:further-reading.

Version history

The view attribute was added in CEP 1.1.6. In Elsevier Book 5.4.0 it became possible to nest the ce:further-reading-sec element.

ce:given-name

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:given-name        ( %richstring.data; )*>
```

Description

The given name of an author or editor (also known as forename, Christian name) is tagged using ce:given-name.

Usage

For non-Western persons, the ce:given-name is unreliable, and therefore the ce:given-name and ce:surname should always be used together.

XML

```
<ce:author id="au09"
  author-id="S999999941690045X-f91973f1483ad67401eae2e306936b98">
  <ce:given-name>Franklin D.</ce:given-name>
  <ce:surname>Roosevelt</ce:surname>
</ce:author>
```

See also

ce:author

ce:glossary

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:glossary          ( ce:section-title, ce:intro?,
                                  ce:glossary-sec+ )>
<!ATTLIST  ce:glossary
           id                   ID                #IMPLIED
           role                 CDATA             #IMPLIED
           view                 %view;            'all'>
```

Model (CEPs 1.1.6–1.6.0)

```
<!ELEMENT  ce:glossary          ( ce:section-title?, ce:intro?,
                                  ce:glossary-sec+ )>
<!ATTLIST  ce:glossary
           id                   ID                #IMPLIED
           role                 CDATA             #IMPLIED
           view                 %view;            'all'>
```

Description

A glossary is a list of terms or symbols, sometimes with a definition, and sometimes with a reference to the occurrence in the text, appearing in the backmatter of an article.

Usage

A glossary consists of one or more ce:glossary-secs, each containing a subsection within the glossary.

The section title, ce:section-title, contains the title of the glossary, e.g. “Glossary”.

The subelement ce:intro, consisting of one or more paragraphs, is an introductory section at the beginning of the glossary.

Often, a glossary is not subdivided into subsections, in which case it contains just one ce:glossary-sec. If there are subsections, each subsequent ce:glossary-sec must have a ce:section-title, whereas this is optional for the first.

A glossary (section) contains one or more entries, described under ce:glossary-entry.

Version history

Subelement ce:section-title was made optional in CEP 1.1.6.

ce:glossary-def

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:glossary-def       ( %text.data; )*>
```

Model (CEP 1.1.6)

```
<!ELEMENT  ce:glossary-def       ( %textref.data; )*>
```

Model (CEPs 1.2.0, 1.4.0)

```
<!ELEMENT  ce:glossary-def       ( %textref.data; )*>
<!ATTLIST  ce:glossary-def
           id                    ID               #IMPLIED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:glossary-def       ( %note.data; )*>
<!ATTLIST  ce:glossary-def
           id                    ID               #IMPLIED>
```

Description

Within a glossary entry, ce:glossary-def is used to capture the definition of a glossary item.

Usage

See ce:glossary-entry.

Version history

In CEP 1.1.6 the content model was extended making it possible to use cross-references (ce:cross-ref, ce:cross-refs, ce:intra-ref and ce:intra-refs) in the content. The id attribute was added in CEP 1.2.0. In CEP 1.5.0 the model of ce:glossary-def was changed to %note.data; making it possible to add lists. Also, entity %math; was added to %note.data;.

ce:glossary-entry

Declaration

Model (CEPs 1.1.0–1.1.3)

```
<!ELEMENT  ce:glossary-entry     ( ce:glossary-heading, ce:glossary-def*,
                                   ( %cross-ref; )*, ce:glossary-
                                   entry* )>
<!ATTLIST  ce:glossary-entry
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED>
```

Model (CEPs 1.1.4, 1.1.5)

```
<!ELEMENT  ce:glossary-entry     ( ce:indexed-name?, ce:glossary-heading,
                                   ce:glossary-def*, ( %glossary-
                                   entry-refs; )?, ( ce:see-also |
                                   ce:glossary-entry | ce:reader-
                                   see )* )>
<!ATTLIST  ce:glossary-entry
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED>
```

Model (CEPs 1.1.6–1.6.0)

```
<!ELEMENT  ce:glossary-entry     ( ce:indexed-name?, ce:glossary-heading,
                                   ce:glossary-def*, ( %glossary-
                                   entry-refs; )?, ( ce:see-also |
                                   ce:glossary-entry | ce:reader-
                                   see )* )>
<!ATTLIST  ce:glossary-entry
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED>
```

Description

The glossary or a glossary section consists of one or more glossary entries. The element ce:glossary-entry is provided in order to capture such an entry.

Usage

A ce:glossary-entry consists of an optional ce:indexed-name with the term under which the entry should appear in a glossary, a mandatory ce:glossary-heading, followed by zero or more ce:glossary-defs, an optional list of ce:cross-ref and ce:intra-ref (provided the DTD supports this element), and zero or more see-also references, nested glossary entries and reader-see references.

A glossary entry has an optional id attribute, which can be used to make cross-references from expressions in the text to the terms in the glossary.

Glossary heading and definition

A glossary heading, ce:glossary-heading contains the term.

A glossary entry may or may not have accompanying definitions. An example where it has none is when it contains nested entries. The following has one or two definitions per entry.

XML

```
<ce:glossary-entry id="gle001">
  <ce:glossary-heading><ce:italic>a</ce:italic></ce:glossary-heading>
  <ce:glossary-def id="gld001">acceleration
    (m/s<ce:sup>2</ce:sup>)</ce:glossary-def>
</ce:glossary-entry>
<ce:glossary-entry id="gle002">
  <ce:glossary-heading><ce:italic>e</ce:italic></ce:glossary-heading>
  <ce:glossary-def id="gld002">charge of an electron
     (1.6022&middot;10<ce:sup>&minus;19</ce:sup>
     <ce:hsp sp="0.25"/>C)</ce:glossary-def>
  <ce:glossary-def id="gld003">base of natural logarithm
     (2.718281828)</ce:glossary-def>
</ce:glossary-entry>
<ce:glossary-entry id="gle003">
  <ce:glossary-heading><ce:italic>F</ce:italic></ce:glossary-heading>
  <ce:glossary-def id="gld004">force (N)</ce:glossary-def>
</ce:glossary-entry>
```

Presentation

a, acceleration (m/s^2)
e, charge of an electron ($1.6022 \cdot 10^{-19}$ C),
base of natural logarithm (2.718281828)
F, force (N)

Cross-references

If there are page numbers or section numbers referring to the place in the text where the term is used, they can be tagged using the `ce:cross-ref` and `ce:intra-ref` subelements, see the first example above. Depending on the value of `%cross-ref;` the `ce:intra-ref` may or may not be present; this depends on which DTD the glossary is structured with.

Of course, reference to *page* numbers is not appropriate in electronic media. Therefore, the `ce:cross-ref` and `ce:intra-ref` may also be empty here, meaning that the rendering application must provide another way to establish a “clickable” link, e.g. by turning the whole entry into a hyperlink or by providing a button.

Nested glossary entries

Glossary entries can be nested. Two sublevels are allowed.

XML

```
<ce:glossary-entry id="gle045">
  <ce:glossary-heading>
    <ce:monospace>biographyid</ce:monospace>, attribute of
    <ce:monospace>author</ce:monospace>
  </ce:glossary-heading>
  <ce:glossary-def id="gld049">
    link to the author's biography
  </ce:glossary-def>
</ce:glossary-entry>
<ce:glossary-entry id="gle046">
  <ce:glossary-heading>
    <ce:monospace>year</ce:monospace>
  </ce:glossary-heading>
  <ce:glossary-entry id="gle047">
    <ce:glossary-heading>
```

```
            attribute of <ce:monospace>date-accepted</ce:monospace>
          </ce:glossary-heading>
          <ce:glossary-def id="gld050>year of acceptance</ce:glossary-def>
        </ce:glossary-entry>
        <ce:glossary-entry id="gle048">
          <ce:glossary-heading>
            attribute of <ce:monospace>copyright</ce:monospace>
          </ce:glossary-heading>
          <ce:glossary-def id="gld051">copyright year</ce:glossary-def>
        </ce:glossary-entry>
      </ce:glossary-entry>
```

Presentation

`biographyid`, attribute of `author`, link to the author's biography

`year`

attribute of `date-accepted`, year of acceptance

attribute of `copyright`, copyright year

Version history

Parameter entity `%glossary-entry-refs;` and element `ce:indexed-name` were introduced in CEP 1.1.4. In CEP 1.1.6 element `ce:see` and `ce:inter-ref` were added to parameter entity `%glossary-entry-refs;`.

ce:glossary-heading

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:glossary-heading   ( %textref.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:glossary-heading   ( %textref.data; )*>
```

Description

Within a glossary entry, ce:glossary-heading is used to capture the item that is defined.

Usage

See ce:glossary-entry.

Version history

In CEP 1.5.0 entity %math; was added to %textref.data;.

ce:glossary-sec

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:glossary-sec      ( ce:section-title?, ce:intro?,
                                  ce:glossary-entry+ )>
<!ATTLIST  ce:glossary-sec
           id                   ID                #IMPLIED
           role                 CDATA             #IMPLIED>
```

Model (CEPs 1.1.6–1.6.0)

```
<!ELEMENT  ce:glossary-sec      ( ce:section-title?, ce:intro?,
                                  ce:glossary-entry+ )>
<!ATTLIST  ce:glossary-sec
           id                   ID                #IMPLIED
           role                 CDATA             #IMPLIED
           view                 %view;            'all'>
```

Description

The element ce:glossary-sec is a section within the glossary.

Usage

See ce:glossary.

Version history

The view attribute was added in CEP 1.1.6.

ce:glyph

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:glyph              EMPTY>
<!ATTLIST  ce:glyph
           name                  %glyph-names;     #REQUIRED>
```

Description

Symbols for which no Unicode code point exists, may be captured in a ce:glyph element.

Usage

The Elsevier Grid contains a small number of symbols for which no Unicode code point exists. This concerns especially symbols for chemistry and linguistics. Such symbols can be captured using the ce:glyph element. It has a required name attribute, which contains the name of the glyph. Its value must be one of a list of names enumerated in the DTD. See the section on glyphs (p. 19) for an overview.

It is expected that newer versions of Unicode will incorporate some or all of the glyphs defined by ce:glyph. Unicode characters are always preferred over ce:glyphs.

XML

```
Bi(NO<inf>3</inf>)<ce:glyph name="rad"/>5H<inf>2</inf>O
```

XML

```
C<ce:glyph name="dbnd"/>N bond
```

Version history

Prior to DTD 5.0, all non-ascii symbols were entered as character entities.

Rendering notes

A glyph element is rendered with the glyph of that name that is shown in the Elsevier Grid, or with a similar glyph in a different font/style.

ce:grant-number

Declaration

Model (CEPs 1.1.5, 1.1.6)

```
<!ELEMENT  ce:grant-number       ( %text.data; )*>
<!ATTLIST  ce:grant-number
           refid                 IDREF            #REQUIRED>
```

Model (CEPs 1.2.0, 1.4.0)

```
<!ELEMENT  ce:grant-number       ( %text.data; )*>
<!ATTLIST  ce:grant-number
           id                    ID               #IMPLIED
           refid                 IDREF            #REQUIRED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:grant-number       ( %text.data; )*>
<!ATTLIST  ce:grant-number
           id                    ID               #IMPLIED
           refid                 IDREF            #REQUIRED>
```

Description

The element ce:grant-number contains the identification of a grant under which the document was written.

Usage

The element ce:grant-number is linked to a ce:grant-sponsor through its mandatory refid attribute.

XML

```
<ce:grant-number refid="grant4">EF-2008.001</ce:grant-number>
```

For more information, see ce:grant-sponsor.

Version history

ce:grant-number was added in CEP 1.1.5. The id attribute was added in CEP 1.2.0. In CEP 1.5.0 entity %math; was added to %text.data;.

See also

ce:grant-sponsor

ce:grant-sponsor

Declaration

Model (CEPs 1.1.5–1.4.0)

```
<!ELEMENT  ce:grant-sponsor      ( %text.data; )*>
<!ATTLIST  ce:grant-sponsor
           id                    ID               #IMPLIED
           role                  CDATA            #IMPLIED
           xlink:type            ( simple )       #FIXED "simple"
           xlink:role            CDATA            #FIXED "http://www.elsevier.com/xml/linking-roles/grant-
           xlink:href            CDATA            #IMPLIED
           sponsor-id            CDATA            #IMPLIED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:grant-sponsor      ( %text.data; )*>
<!ATTLIST  ce:grant-sponsor
           id                    ID               #IMPLIED
           role                  CDATA            #IMPLIED
           xlink:type            ( simple )       #FIXED "simple"
           xlink:role            CDATA            #FIXED "http://www.elsevier.com/xml/linking-roles/grant-
           xlink:href            CDATA            #IMPLIED
           sponsor-id            CDATA            #IMPLIED>
```

Description

The element ce:grant-sponsor contains the name of an organisation that supported the authors.

Usage

Funding received by the authors of scientific works is acknowledged in the acknowledgement section, in footnotes or elsewhere in the document. The elements ce:grant-number and ce:grant-sponsor, modeled after elements in the NLM Publishing DTD, allow tagging the grant information.

The content of the element ce:grant-sponsor is an organisation that supported the authors. The optional attribute xlink:href contains a URI that belongs to the funding body or the grant scheme of the funding body. The id attribute is the target of one or more ce:grant-number elements containing the identifications of the grants that were awarded by the authors. The attribute sponsor-id can be used to uniquely identify the sponsor.

XML

```
<ce:acknowledgment id="ack1"><ce:para id="p414">This work was
supported by the <ce:grant-sponsor xlink:href=
"http://www.pharmafoundation.org/" id="GS1">Pharmaceutical Research
and Manufacturers of America Foundation</ce:grant-sponsor>, the
<ce:grant-sponsor xlink:href="http://www.energy.gov" id="GS2">United
States Department of Energy</ce:grant-sponsor> Office of Science (BER)
grant number
<ce:grant-number refid="GS2">DE-FG02-04ER63803</ce:grant-number>, the
<ce:grant-sponsor xlink:href="http://www.nih.gov" id="GS3">National
```

```
Institutes of Health</ce:grant-sponsor>, <ce:grant-sponsor
xlink:href="http://www.nsf.gov" id="GS4">National Science
Foundation</ce:grant-sponsor> FIBR Award <ce:grant-number
refid="GS4">EF-0425719</ce:grant-number>, the <ce:grant-sponsor
xlink:href="http://www.nhlbi.nih.gov/meetings/proteomics.htm"
id="GS5">National Heart, Lung, and Blood Proteomics
Initiative</ce:grant-sponsor> (<ce:grant-number
refid="GS5">HHSN268200248178C</ce:grant-number>), the Whitaker
Foundation, and Cellicon Biotechnologies, Inc.</ce:para>
</ce:acknowledgment>
```

Version history

ce:grant-sponsor was added in CEP 1.1.5. In CEP 1.5.0 entity %math; was added to %text.data;.

See also

ce:grant-number

ce:hsp

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:hsp                EMPTY>
<!ATTLIST  ce:hsp
           sp                    NMTOKEN          "1.0">
```

Description

The element ce:hsp is used to create explicit horizontal space.

Usage

The element ce:hsp should be used as little as possible. Should the need arise to indicate explicitly the insertion of spaces, ce:hsp can be used. The element has one attribute, sp, which denotes the width of the space measured in “em”s of the current font. The default value if sp is omitted is 1.0.

XML

```
... concludes the proof.<ce:hsp sp="1.0"/>&squ;
```

Presentation

... concludes the proof. □

The value of sp is a positive floating number. It is not possible to use ce:hsp for kerning or creating compound symbols.

See also

 ,

ce:imprint

Declaration

Model (CEPs 1.1.1–1.6.0)

```
<!ELEMENT  ce:imprint            ( %richstring.data; )*>
```

Description

The imprint of e.g. a book project can be captured with element ce:imprint.

Usage

The element ce:imprint is used in the identification portions of books DTDs and identifies the imprint under which the book project is published.

XML

```
<ce:imprint>Academic Press</ce:imprint>
<ce:imprint>Churchill Livingstone</ce:imprint>
```

Version history

This element was added in CEP 1.1.1.

ce:include-item

Declaration

Model (CEPs 1.1.0, 1.1.0.1)

```
<!ELEMENT  ce:include-item      ( ce:pii, ce:doi?, %titles;,
                                  ce:pages* )>
<!ATTLIST  ce:include-item
           role                 CDATA             #IMPLIED
           view                 %view;            'all'>
```

Model (CEPs 1.1.1–1.5.0)

```
<!ELEMENT  ce:include-item      ( ce:pii, ce:doi?, ( %titles; )?,
                                  ce:pages* )>
<!ATTLIST  ce:include-item
           role                 CDATA             #IMPLIED
           view                 %view;            'all'>
```

Model (CEP 1.6.0)

```
<!ELEMENT  ce:include-item      ( ce:pii, ce:doi?, ( %titles; )?,
                                  ( ce:pages* | ce:article-number ) )>
<!ATTLIST  ce:include-item
           role                 CDATA             #IMPLIED
           view                 %view;            'all'>
```

Description

The element ce:include-item is used to call documents (articles, chapters, appendices, etc.) into the central hub XML file for books or journal issues.

Usage

The ce:include-item element is used to call lower-level files such as chapters into the central hub XML file for books or journal issues.

The subelements ce:pii and ce:doi are used to identify the called document. Its attribute role can be used to inform the application about the type of document to expect, e.g. a chapter, an index or a glossary.

The ce:include-item element also contains a title (ce:title) and possibly a subtitle (ce:subtitle), and it may contain a sequence of titles (ce:alt-title) and subtitles (ce:alt-subtitle) in an alternative language. The page range or page ranges of the included item can be given in ce:pages. In case an article has an article number and no page range, element ce:article-number can be used. These elements are present to aid in identifying the referred documents, but more importantly, to enable rendering a table of contents using the hub XML file.

In journal issue files the titles are *not* used. In case a hub file does contain titles, the title elements can be used to display a different title, e.g. an abbreviated one.

XML

```
<ce:include-item>
  <ce:pii>B0-12-227085-1/00001-1</ce:pii>
  <ce:title id="t1">Core Issues in Primary Care</ce:title>
</ce:include-item>
<ce:include-item>
  <ce:pii>B0-12-227085-1/00002-3</ce:pii>
  <ce:title id="t2">Subject index</ce:title>
</ce:include-item>
```

XML

```
<ce:include-item>
  <ce:pii>S0010-2180(03)00289-X</ce:pii>
  <ce:doi>10.1016/j.combustflame.2003.11.005</ce:doi>
  <ce:pages>
    <ce:first-page>371</ce:first-page>
    <ce:last-page>376</ce:last-page>
  </ce:pages>
</ce:include-item>
<ce:include-item>
  <ce:pii>S0010-2180(03)00298-0</ce:pii>
  <ce:doi>10.1016/j.combustflame.2003.12.001</ce:doi>
  <ce:pages>
    <ce:first-page>428</ce:first-page>
  </ce:pages>
</ce:include-item>
```

XML

```
<issue-body>
  <issue-sec>
    <ce:include-item>
      <ce:pii>S9999-9943(97)00432-4</ce:pii>
      <ce:doi>10.1016/j.ttrh.1990.06.078</ce:doi>
      <ce:pages>
        <ce:first-page>1</ce:first-page>
        <ce:last-page>73</ce:last-page>
      </ce:pages>
    </ce:include-item>
    <ce:include-item>
      <ce:pii>S9999-9943(97)00433-6</ce:pii>
      <ce:doi>10.1016/j.ttrh.1990.06.079</ce:doi>
      <ce:pages>
        <ce:first-page>74</ce:first-page>
        <ce:last-page>155</ce:last-page>
      </ce:pages>
    </ce:include-item>
    <ce:include-item role="add-on">
      <ce:pii>S9999-9943(97)00434-8</ce:pii>
      <ce:doi>10.1016/j.ttrh.1990.06.080</ce:doi>
      <ce:pages>
        <ce:first-page>155</ce:first-page>
      </ce:pages>
    </ce:include-item>
    <ce:include-item role="add-on">
      <ce:pii>S9999-9943(97)00435-X</ce:pii>
      <ce:doi>10.1016/j.ttrh.1990.06.081</ce:doi>
      <ce:pages>
```

```
            <ce:first-page>156</ce:first-page>
          </ce:pages>
        </ce:include-item>
        ...
      </issue-sec>
    </issue-body>
```

XML

```
    <ce:include-item>
      <ce:pii>S2405-8440(18)30711-4</ce:pii>
      <ce:doi>10.1016/j.heliyon.2018.e00755</ce:doi>
      <ce:article-number>e00755</ce:article-number>
    </ce:include-item>
    <ce:include-item>
      <ce:pii>S2405-8440(18)31777-8</ce:pii>
      <ce:doi>10.1016/j.heliyon.2018.e00752</ce:doi>
      <ce:article-number>e00752</ce:article-number>
    </ce:include-item>
```

The attribute `role` allows one to categorize the included items. For instance, it makes it possible to mark "add-on" items, and handle these in different ways than ordinary items. Applications should treat `ce:include-item`s with roles unknown to them as ordinary items, i.e., unknown roles must be ignored. The role must belong to a list validated by the XML validation tools. The following values for `role` have been defined:

- `add-on` is used in the issue hub to indicate that the item is an add-on item. The main item does not use this attribute.
  Included items that belong to a section of abstracts, or news items, etc., do not possess this attribute.
- `index`, `glossary`, and `bibliography` are used in an MRW hub to indicate that the item is an index, glossary or bibliography, respectively.

Version history

This element was introduced in CEP 1.1.0. In CEP 1.1.1 the titles were made optional. In CEP 1.6.0 subelement `ce:article-number` was added.

ce:index

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:index          ( ce:section-title, ce:intro?, ce:index-
                               sec+ )>
<!ATTLIST  ce:index
           id                ID              #IMPLIED
           role              CDATA           #IMPLIED
           view              %view;          'all'>
```

Model (CEPs 1.1.6–1.6.0)

```
<!ELEMENT  ce:index          ( ce:section-title?, ce:intro?,
                               ce:index-sec+ )>
<!ATTLIST  ce:index
           id                ID              #IMPLIED
           role              CDATA           #IMPLIED
           view              %view;          'all'>
```

Description

An index is a list of terms (index entries) and references to places in the text that are relevant to each term.

Usage

An index is a list of terms (index entries) and references to places in the text that are relevant to each term. The index entries are divided in sections. It is possible to nest terms.

The subelement ce:intro, consisting of one or more paragraphs, is an introductory section at the beginning of the index.

If there is more than one ce:index-sec, then each must have a ce:section-title, except for the first which is optional.

Different types of indexes are possible, e.g. author index, subject index, name index, and formula index. An entry in an author index is the name of an author in the work; an entry in a subject index is a concept described in the work for which the subject index is compiled; an entry in a name index is the name of a person referred to in the text of the work; an entry in a formula index is a (chemical) formula occurring in the text of the work. The type of index can be indicated by the attribute role. Curently the following roles are defined:

- author
- case
- category
- drug
- element
- material
- notation
- subject
- technique

Index sections are lists of index entries, ce:index-entry. Each index entry starts with text describing the index entry, the index heading (ce:index-heading). This can be followed by a "see" reference or a number of cross-references. These can be followed by "see also" references and nested index entries in an arbitrary order.

Cross-references within the index can occur and are of two types: "see" (ce:see) and "see also" (ce:see-also). A "see" reference points to a term that is *preferred* over the present one. A "see also" reference points to a term that is *related* to the present one.

Most index entries point to one or more places in the text that is relevant to that index entry. This is achieved through the ce:cross-ref or ce:intra-ref element. The latter is to be used for referencing to documents that are part of a collection, for instance a major reference work.

The following example is based on a major reference work:

XML

```
<ce:index id="ix01" role="subject">
  <ce:section-title id="st38">Subject Index</ce:section-title>
  ...
  <ce:index-sec id="ids5">
    <ce:index-entry id="idx33">
      <ce:index-heading>continuing professional
        education (CPE)</ce:index-heading>
      <ce:index-entry id="idx34">
        <ce:index-heading>in clinical psychology</ce:index-heading>
        <ce:intra-ref id="iar44"
          xlink:href="pii:B0895560666020439#p035">5</ce:intra-ref>
        <ce:index-entry id="idx35">
          <ce:index-heading>initiatives</ce:index-heading>
          <ce:intra-ref id="iar45"
            xlink:href="pii:B0895560666020439#p254">45</ce:intra-ref>
        </ce:index-entry>
      </ce:index-entry>
      <ce:index-entry id="idx36">
        <ce:index-heading>and cognitive style</ce:index-heading>
        <ce:intra-ref id="iar46"
          xlink:href="pii:B0895560666020439#p523">205</ce:intra-ref>
        <ce:index-entry id="idx37">
          <ce:index-heading>categories</ce:index-heading>
          <ce:intra-ref id="iar47"
            xlink:href="pii:B0895560666020439#p108">80</ce:intra-ref>
        </ce:index-entry>
        <ce:index-entry id="idx38">
          <ce:index-heading>criticisms</ce:index-heading>
          <ce:intra-ref id="iar48"
             xlink:href="pii:B0895560666020439#p431">200</ce:intra-ref>
        </ce:index-entry>
        <ce:index-entry id="idx39">
          <ce:index-heading>for practitioners</ce:index-heading>
          <ce:intra-ref id="iar49"
            xlink:href="pii:B0895560666020439#p512">150</ce:intra-ref>
        </ce:index-entry>
      </ce:index-entry>
      <ce:index-entry id="idx40">
```

```
        <ce:index-heading>credits</ce:index-heading>
        <ce:index-entry id="idx41">
          <ce:index-heading>mandatory requirements</ce:index-heading>
          <ce:intra-ref id="iar50"
            xlink:href="pii:B0895560666020427#p735">195</ce:intra-ref>
        </ce:index-entry>
        <ce:index-entry id="idx42">
          <ce:index-heading>and recredentialing</ce:index-heading>
          <ce:intra-ref id="iar51"
            xlink:href="pii:B0895560666020427#p599">185</ce:intra-ref>
        </ce:index-entry>
      </ce:index-entry>
      <ce:index-entry id="idx43">
        <ce:index-heading>definitions</ce:index-heading>
        <ce:intra-ref id="iar52"
          xlink:href="pii:B0895560666020439#p771">25</ce:intra-ref>
      </ce:index-entry>
      <ce:see-also refid="idx97">mandatory continuing professional
        education (MCPE)</ce:see-also>
    </ce:index-entry>
    <ce:index-entry id="idx44">
      <ce:index-heading>continuity theory, and
        bereavement</ce:index-heading>
      <ce:intra-ref id="iar53"
        xlink:href="pii:B0895560666070235#p974">250</ce:intra-ref>
    </ce:index-entry>
    <ce:index-entry id="idx45">
      <ce:index-heading>conversion disorder</ce:index-heading>
      <ce:see refid="idx46">conversion neurosis</ce:see>
    </ce:index-entry>
    <ce:index-entry id="idx46">
      <ce:index-heading>conversion neurosis</ce:index-heading>
      <ce:intra-ref id="iar54"
        xlink:href="pii:B0895560666052541#p961">25</ce:intra-ref>
    </ce:index-entry>
    ...
    <ce:index-entry id="idx97">
      <ce:index-heading>mandatory continuing professional
        education (MCPE)</ce:index-heading>
      <ce:intra-ref id="iar106"
        xlink:href="pii:B0895560666052541#p683">255</ce:intra-ref>
    </ce:index-entry>
  </ce:index-sec>
...
</ce:index>
```

Presentation

Subject Index

...

continuing professional education (CPE)
  in clinical psychology 5
    initiatives 45
  and cognitive style 205
    categories 80
    criticisms 200

Version history

Subelement `ce:section-title` was made optional in CEP 1.1.6.

See also

`ce:index-entry`, `ce:index-sec`, `ce:see`, `ce:see-also`

ce:indexed-name

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:indexed-name       ( %string.data; )*>
```

Description

If the author's or collaboration's name is to be alphabetized differently than expected, the element ce:indexed-name is used.

Usage

See ce:author.

Version history

Prior to DTD 5.0, the element was called index.

ce:index-entry

Declaration

Model (CEPs 1.1.0–1.1.2)

```
<!ELEMENT  ce:index-entry        ( ce:index-heading, ( ce:see | ( %cross-
                                   ref; )+ )?, ( ce:see-also | ce:index-
                                   entry )* )>
<!ATTLIST  ce:index-entry
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED>
```

Model (CEP 1.1.3)

```
<!ELEMENT  ce:index-entry        ( ce:index-heading, ( ( %see; ) |
                                   ( %cross-ref; )+ )?, ( ce:see-also |
                                   ce:index-entry | ce:reader-see )* )>
<!ATTLIST  ce:index-entry
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED>
```

Model (CEPs 1.1.4, 1.1.5)

```
<!ELEMENT  ce:index-entry        ( ce:indexed-name?, ce:index-heading,
                                   ( %index-entry-refs; )?, ( ce:see-also
                                   | ce:index-entry | ce:reader-see )* )>
<!ATTLIST  ce:index-entry
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED>
```

Model (CEPs 1.1.6–1.4.0)

```
<!ELEMENT  ce:index-entry        ( ce:indexed-name?, ce:index-heading,
                                   ( %index-entry-refs; )?, ( ce:see-also
                                   | ce:index-entry | ce:reader-see )* )>
<!ATTLIST  ce:index-entry
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:index-entry        ( ce:indexed-name?, ce:index-heading,
                                   ( %index-entry-refs; )?, ( ce:see-also
                                   | ce:index-entry | ce:reader-see )* )>
<!ATTLIST  ce:index-entry
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED>
```

Description

Every index entry is captured using ce:index-entry.

Usage

The element ce:index-entry consists of an optional ce:indexed-name with the term under which the entry should appear in an index, a ce:index-heading, which is optionally followed by a “see” reference to another index entry (ce:see) or a number of

cross-references, optionally followed by a mixture of “see-also” references to other index entries (ce:see-also), sub-index entries and general references (ce:reader-see).

The cross-references can be either a ce:cross-ref or a ce:intra-ref. The latter is to be used for referencing to documents that are part of a set, for instance a major reference work. For some examples, see ce:see and ce:see-also.

Version history

Parameter entity %see; and element ce:reader-see were introduced in CEP 1.1.3. Parameter entity %index-entry-refs; and element ce:indexed-name were introduced in CEP 1.1.4. In CEP 1.1.6 multiple ce:see elements were made possible in parameter entity %index-entry-refs;.

See also

ce:index, ce:see, ce:see-also, ce:reader-see

ce:index-flag

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:index-flag        ( ce:index-flag-term, ce:index-flag-
                                  see?, ( ce:index-flag-see-also |
                                  ce:index-flag )* )>
<!ATTLIST  ce:index-flag
           id                   ID              #REQUIRED
           role                 CDATA           #IMPLIED>
```

Description

The element ce:index-flag is used by book indexers and supports the process to generate back-of-book indices.

Usage

The element ce:index-flag allows a term to be marked for inclusion in an index. Its content model is closely related to that of ce:index-entry, and it is possible to generate an index entry from the flagged index term.

Content for element ce:index-flag consists of a required element ce:index-flag-term, followed by optional/repeatable ce:index-flag-see and/or ce:index-flag-see-also and/or nested ce:index-flag elements.

The element ce:index-flag has one required attribute, id.

XML

```
<ce:para id="p24">One of the enemies of the ant is the
  aardvark<ce:index-flag id="a1234">
    <ce:index-flag-term>aardvark</ce:index-flag-term>
    <ce:index-flag-see-also>anteater</ce:index-flag-see-also>
  </ce:index-flag> ...
</ce:para>
```

Secondary index terms are marked up as nested ce:index-flag elements.

XML

```
<ce:caption id="c054">
  <ce:simple-para id="sp055">Oberkörperhochlagerung bei
    Herzinsuffizienz<ce:index-flag id="idx0040">
    <ce:index-flag-term>Lagerung</ce:index-flag-term>
    <ce:index-flag id="idx0041">
      <ce:index-flag-term>bei Herzinsuffizienz</ce:index-flag-term>
    </ce:index-flag>
  </ce:index-flag> [A400]</ce:simple-para>
</ce:caption>
```

Because the element ce:index-flag has an ID, it can (and should) be the target of a ce:intra-ref element in the Index. This gives the possibility that in a hyperlinked PDF or HTML file, the reader can click on the entry terms in the Index and reach the exact location in the text. Without ce:index-flag elements the targets are at paragraph level.

XML

```
<ce:index-entry id="idx1260">
  <ce:index-heading>Lagerung</ce:index-heading>
  <ce:index-entry id="idx1270">
    <ce:index-heading>bei Herzinsuffizienz</ce:index-heading>
    <ce:intra-ref
       xlink:href="pii:B978-3-437-46192-7.10014-2#idx0041"
       >19</ce:intra-ref>
  </ce:index-entry>
</ce:index-entry>
```

Version history

This element was introduced in CEP 1.1.0.

Rendering notes

This element should not be rendered in either electronic or hardcopy versions of the book.

Web platforms may use the ce:index-flag element to generate additional, hyperlinked, indexes, for example, per chapter, or for a selected set of chapters or volumes.

ce:index-flag-see

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:index-flag-see     ( %text.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:index-flag-see     ( %text.data; )*>
```

Description

The element ce:index-flag-see is used to delimit a term to be indexed, within the content model of the ce:index-flag element.

Usage

Within ce:index-flag, the element ce:index-flag-see is used to create a "see" entry. This corresponds to a ce:see within an index entry.

XML

```
<ce:para id="560">text text ...
  <ce:index-flag id="a1234">
    <ce:index-flag-term>acquired immune
      deficiency syndrome</ce:index-flag-term>
    <ce:index-flag-see>AIDS</ce:index-flag-see>
  </ce:index-flag> ... end of paragraph.
</ce:para>
```

Version history

This element was introduced in CEP 1.1.0. In CEP 1.5.0 entity %math; was added to %text.data;.

See also

ce:index-flag

ce:index-flag-see-also

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:index-flag-see-also( %text.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:index-flag-see-also( %text.data; )*>
```

Description

The element ce:index-flag-see-also is used to delimit a term to be indexed, within the content model of the index-flag element.

Usage

In order to flag a term for a “see also” index entry, the element ce:index-flag-see-also is used. It corresponds to a ce:see-also within an index entry.

See ce:index-flag for a usage example.

Version history

This element was introduced in CEP 1.1.0. In CEP 1.5.0 entity %math; was added to %text.data;.

ce:index-flag-term

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:index-flag-term    ( %text.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:index-flag-term    ( %text.data; )*>
```

Description

The element ce:index-flag-term is used to delimit a term to be indexed, within the content model of the ce:index-flag element.

Usage

The ce:index-flag-term contains the term to be indexed within a ce:index-flag element. It corresponds with the ce:index-heading within a ce:index-entry.

Content for index-flag-term consists of the text.data parameter entity from the Common Element Pool (CEP). See ce:index-flag for a usage example.

Version history

This element was introduced in CEP 1.1.0. In CEP 1.5.0 entity %math; was added to %text.data;.

ce:index-heading

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:index-heading      ( %textref.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:index-heading      ( %textref.data; )*>
```

Description

The heading of an index entry is captured using ce:index-heading.

Usage

Each index entry starts with a descriptive text, the heading.

For some examples, see ce:see and ce:see-also.

Version history

In CEP 1.5.0 entity %math; was added to %textref.data;.

See also

ce:index, ce:index-entry, ce:see, ce:see-also

ce:index-sec

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:index-sec          ( ce:section-title?, ce:intro?,
                                   ce:index-entry+ )>
<!ATTLIST  ce:index-sec
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED>
```

Model (CEPs 1.1.6–1.6.0)

```
<!ELEMENT  ce:index-sec          ( ce:section-title?, ce:intro?,
                                   ce:index-entry+ )>
<!ATTLIST  ce:index-sec
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED
           view                  %view;            'all'>
```

Description

The element ce:index-sec is a section within the index.

Usage

See ce:index.

Version history

The view attribute was added in CEP 1.1.6.

ce:inf

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:inf              ( %richstring.data; )*>
<!ATTLIST  ce:inf
           loc                 %loc;            "post">
```

Description

Subscripts are captured using ce:inf.

Usage

Subscripts (inferior text) are captured using ce:inf.

The optional attribute loc can have the values pre and post, the latter is equivalent to omitting the attribute altogether. If loc is equal to pre this is to signify that the element belongs to the subsequent object.

XML

```
<ce:sup loc="pre">238</ce:sup><ce:inf loc="pre">92</ce:inf>U
```

Presentation

$^{238}_{92}\mathrm{U}$

By default, a super- and subscript appearing at one object will be displayed stacked, i.e. above each other. Staggered super- and subscripts (for example, ${R^{i}}_{j}{}^{k}$) can only be used in math mode.

See also

ce:sup

ce:initials

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:initials          ( %string.data; )*>
```

Description

In order to assist applications that need to determine the correct initials based on the given name, the element ce:initials has been provided. It is only used if the initials cannot be inferred from the given name by taking the first letters, preserving dashes.

The element is used by applications that want initials in running heads or in tables of content rather than the full given name.

Note that ce:initials does not replace ce:given-name if the author only supplied initials.

XML

```
<ce:author id="au16"
  author-id="S9999999416900783-10e76d4f2692a57af941f01a2922dbef">
  <ce:initials>J.W.Th.</ce:initials>
  <ce:given-name>Joannes Wilhelmus Theodorus</ce:given-name>
  ...
</ce:author>
```

Usage

See ce:author.

Version history

Prior to DTD 5.0, the element was called inits.

ce:inline-figure

Declaration

Model (CEPs 1.1.0–1.2.0)

```
<!ELEMENT  ce:inline-figure      ( ce:link )>
<!ATTLIST  ce:inline-figure
           baseline              NMTOKEN          "0.0">
```

Model (CEPs 1.4.0–1.6.0)

```
<!ELEMENT  ce:inline-figure      ( ce:link, ce:alt-text* )>
<!ATTLIST  ce:inline-figure
           baseline              NMTOKEN          "0.0">
```

Description

The element ce:inline-figure is used to insert an image in the running text, e.g. a symbol that does not occur in the standard character set.

Usage

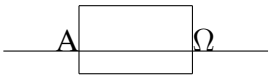
An in-line figure, also less accurately known as fixed graphic, is a figure that occurs exactly at the point where it occurs in the document instance. It consists of a ce:link element, which refers to the external artwork file, optionally followed by ce:alt-text elements. At least one ce:alt-text is expected to be present; it must have a role attribute with value short and is used to capture a short (30 words or less) and accurate description of the inline figure. Additionally a ce:alt-text with a long decription can be added.

The bounding box of an in-line figure is as tight as possible. The vertical position of the in-line figure is controlled by the attribute baseline, whose default value is 0.0. It denotes the fraction of the height that appears below the baseline.

XML

```
A<ce:inline-figure baseline="0.33">
  <ce:link locator="fx1" xlink:type="simple" xlink:role=
    "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
    xlink:href="pii:S2212095515009153/fx1"/>
  <ce:alt-text id="at004" role="short">Box
    representing an inline figure.</ce:alt-text>
</ce:inline-figure>&Omega;
```

Presentation



Explanation

Since the value of baseline is 0.33, the baseline is at one-third of the in-line figure, represented by the box, i.e., one-third of the graphic is below the baseline.

An inline-figure appears in the running text like a character would do. No spaces or newlines are generated before or after an in-line figure. This makes it different from a displayed figure which appears on a line of its own with vertical space above and below it, see ce:figure. The graphic file is shown as is, i.e. it will not adapt to the surrounding font size or style, as would a ce:glyph.

In-line figures should not occur too deeply in the parse tree of the document.

Version history

Prior to DTD 5.0, this element was called `inline-fig`. In CEP 1.4.0 the subelement `ce:alt-text` was introduced.

See also

`ce:alt-text`, `ce:figure`, `ce:glyph`

ce:inter-ref

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:inter-ref          ( %text.data; )*>
<!ATTLIST  ce:inter-ref
           id                    ID               #IMPLIED
           xlink:type            ( simple )       #FIXED "simple"
           xlink:role            CDATA            #IMPLIED
           xlink:href            CDATA            #REQUIRED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:inter-ref          ( %text.data; )*>
<!ATTLIST  ce:inter-ref
           id                    ID               #IMPLIED
           xlink:type            ( simple )       #FIXED "simple"
           xlink:role            CDATA            #IMPLIED
           xlink:href            CDATA            #REQUIRED
           versionurl            CDATA            #IMPLIED
           versiondate           CDATA            #IMPLIED>
```

Description

The `ce:inter-ref` element is used to reference an object "not under control of the publisher". Examples are HTML pages on the World-Wide Web, records in third-party on-line databases. The `ce:inter-ref` element is a simple link according to the XLink standard.

Usage

The `ce:inter-ref` is a versatile element used to refer to foreign objects. Its content is popularly seen as "text to click on", but it may be empty.

The attribute `xlink:href` determines the actual link. Its value is a URI-reference (URI: Universal Resource Identifier) according to RFC2396. The URI-reference consists of three parts:

- the protocol or scheme, which is the part up to the colon; the allowed schemes are documented below;
- the resource identifier, which is the part from the colon to the end or up to the hash sign; in the text below we will refer to it as the locator;
- the fragment identifier, which is the part after the hash sign; it may be an ID in the target document, or a more complicated XPath expression; the fragment identifier is optional.

For rules regarding the encoding of URI-references, see the sections on rendering and copy edit considerations below.

The attribute `xlink:role` is used to indicate what kind of object is to be expected at the other end of the link. Its value is a URI of the form

`http://www.elsevier.com/xml/linking-roles/<role name>`.

Currently any MIME type can be used as well as the following six role names:

- external-e-component
- grant-sponsor
- inspec
- preprint
- qr-code
- research-data

A number of schemes to be used in xlink:href are allowed, see Table 6 (p. 366). (See [28] for the latest list of allowed schemes.) For each value of the scheme different rules may apply. These are described below.

The scheme in *xlink:href* is equal to *afnd*

The locator is an Allele Frequency Net Database ID which identifies a record in AFND. AFND provides a central source, freely available to all, for the storage of allele frequencies from different polymorphic areas in the Human Genome. No roles are to be specified.

XML

```
<ce:inter-ref id="interref241"
    xlink:href="afnd:AFND001243">AFND001243</ce:inter-ref>
```

The HTTP URL for an AFND record is constructed by prepending the ID with http://www.allelefrequencies.net/population/. The resulting link of the above example is:

Presentation

AFND001243

The scheme in *xlink:href* is equal to *aoi*

The locator is an astronomical object identifier (aoi). It consists of the doi of the article, followed by the text &, followed by the agreed object name. No roles are to be specified. Note that, if there is a space in the aoi, it is encoded as %20.

XML

```
<ce:inter-ref id="interref1"
    xlink:href="aoi:10.1016/j.newast.2003.11.001&amp;CF%20Pup">
       CF Pup</ce:inter-ref>
```

The scheme in *xlink:href* is equal to *arxiv*

The locator is a number of a preprint in the arXiv.org e-Print archive. The attribute xlink:role is mandatory here; currently the only allowed value is preprint.

XML

```
<ce:inter-ref id="interref8"
    xlink:role="http://www.elsevier.com/xml/linking-roles/preprint"
    xlink:href="arxiv:1606.04017">arXiv:1606.04017</ce:inter-ref>
```

The HTTP URL for an arXiv number is constructed by prepending the number with http://arXiv.org/abs/. The resulting link of the above example is:

Presentation

1606.04017

Note that older preprint numbers have a different format. For example, xlink:href="hep-th/9112009".

The scheme in *xlink:href* is equal to *ascl*

The locator is an ASCL number. The Astrophysics Source Code Library is a free on-line registry for source codes of interest to astronomers and astrophysicists. No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="ascl:1201.001">...</ce:inter-ref>
```

The HTTP URL for an ASCL number is constructed by prepending the ASCL number with `http://ascl.net/`. The resulting link of the above example is:

Presentation

1201.001

The scheme in *xlink:href* is equal to *astm*

The locator is an ASTM number, assigned by the American Society for Testing and Materials. No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="astm:G63">...</ce:inter-ref>
```

The HTTP URL for an ASTM number is constructed by prepending the accession number with `http://www.astm.org/Standards/`. The resulting link of the above example is:

Presentation

G63

The scheme in *xlink:href* is equal to *ccdc*

The locator is a CCDC number, assigned by the Cambridge Crystallographic Data Centre. No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="ccdc:AI631510">...</ce:inter-ref>
```

The Cambridge Crystallographic Data Centre has not yet created an HTTP URL construct for the CCDC numbers.

The scheme in *xlink:href* is equal to *cran*

The locator is a CRAN ID, assigned by the Comprehensive R Archive Network for binary distributions of the base system and contributed packages (http://cran.r-project.org/). No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="cran:optimx">...</ce:inter-ref>
```

The HTTP URL for a CRAN ID is constructed by prepending the package id with: `http://CRAN.R-project.org/package=`. The resulting link of the above example is:

Presentation

optimx

The scheme in *xlink:href* is equal to *ctgov*

The locator is an NCT number, the National Library of Medicine's unique identifier for a record at ClinicalTrials.gov. No roles are to be specified.

XML

```
<ce:inter-ref id="interref10"
    xlink:href="ctgov:NCT00222573">NCT00222573</ce:inter-ref>
```

The HTTP URL for an NCT number is constructed by prepending the number with `http://clinicaltrials.gov/show/`. The resulting link of the above example is:

Presentation

NCT00222573

The scheme in *xlink:href* is equal to *doi*

The locator is a digital object identifier (DOI, see www.doi.org). No roles are to be specified. The path may contain an ID within the target document, in the form of a fragment identifier.

XML

```
<ce:inter-ref id="interref2"
    xlink:href="doi:10.1016/S0004-3702(02)00193-5">...</ce:inter-ref>
```

Standards Note: The `doi` scheme is officially recognized as part of the `info` URI scheme. In this scheme the above `xlink:href` would become

```
xlink:href="info:doi:10.1016/S0004-3702(02)00193-5"
```

The form according to the `info` URI scheme is not (yet) allowed in the Common Element Pool.

The scheme in *xlink:href* is equal to *eslide*

The locator is an ID of a high-resolution slide hosted on a server. The attribute `xlink:role` is mandatory here, with value `external-e-component`.

XML

```
<ce:inter-ref id="interref5" xlink:role=
    "http://www.elsevier.com/xml/linking-roles/external-e-component"
    xlink:href="eslide:VM51787">eSlide: VM51787</ce:inter-ref>
```

The scheme in *xlink:href* is equal to *fiz*

The locator addresses a document in the FIZ database (www.fiz-karlsruhe.de). The attribute `xlink:role` is mandatory here; currently the only allowed value is `inspec` (denoting an inspec record). Note that the colon in the FIZ code is encoded as `%3A`.

XML

```
<ce:inter-ref id="interref3"
    xlink:role="http://www.elsevier.com/xml/linking-roles/inspec"
    xlink:href="fiz:85%3A2535122">...</ce:inter-ref>
```

The scheme in *xlink:href* is equal to *flybase*

The locator is a FlyBase number. FlyBase is an online Bioinformatics database and the primary repository of genetic and molecular data for the insect family Drosophilidae (www.flybase.org). No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="flybase:FBgn0036925">...</ce:inter-ref>
```

The HTTP URL for a FlyBase URI is constructed by prepending the FlyBase number with `http://flybase.org/reports/`. The resulting link of the above example is:

Presentation

FBgn0036925

The scheme in *xlink:href* is equal to *fungidb*

The locator is a FungiDB ID. FungiDB is an integrated genomic and functional genomic database for the kingdom Fungi (fungidb.org/fungidb/). No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="fungidb:BDEG_03263">...</ce:inter-ref>
```

The HTTP URL for a FungiDB ID is constructed by prepending the FungiDB ID with `http://fungidb.org/gene/`. The resulting link of the above example is:

Presentation

BDEG_03263

The scheme in *xlink:href* is equal to *ftp*, *ftps*, *http*, *https* or *mailto*

The locator is a URL. Optionally a role can be specified: it must then be a MIME type or the value "`qr-code`". The path may contain a named location within the target document (this is the part which comes after the `#` in the `HREF` attribute of HTML's `A` element), in the form of a fragment identifier. `ftp`, `ftps`, `http`, `https` and `mailto` are officially recognized URI schemes.

XML

```
<ce:inter-ref id="interref6"
    xlink:role="http://www.elsevier.com/xml/linking-roles/text/html"
    xlink:href="http://www.elsevier.com">Elsevier</ce:inter-ref>
```

XML

```
<ce:inter-ref id="interref7"
    xlink:href="mailto:r.schrauwen@elsevier.com">
    r.schrauwen@elsevier.com</ce:inter-ref>
```

The scheme in *xlink:href* is equal to *geoscenic*

The locator is a GeoScenic number. GeoScenic is a national archive of the vast collections of geological photographs of the British Geological Survey. No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="geoscenic:P572412">...</ce:inter-ref>
```

The HTTP URL for a GeoScenic URI is constructed by prepending the GeoScenic number with `http://geoscenic.bgs.ac.uk/asset-bank/action/search?exactMatch=true&attribute_1000=`. The resulting link of the above example is:

Presentation

P572412

The scheme in *xlink:href* is equal to *igsn*

The locator is an IGSN number, an International Geo Sample Number, assigned by the System for Earth Sample Registration (http://www.geosamples.org/). No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="igsn:HRV0035F0">...</ce:inter-ref>
```

The HTTP URL for an IGSN number is constructed by prepending the accession number with `http://www.geosamples.org/profile?igsn=`. The resulting link of the above example is:

Presentation

HRV0035F0

The scheme in *xlink:href* is equal to *mgi*

The locator is an MGI number, is the international database resource for the laboratory mouse, providing integrated genetic, genomic, and biological data to facilitate the study of human health and disease (www.informatics.jax.org). No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="mgi:2448567">...</ce:inter-ref>
```

The HTTP URL for an MGI URI is constructed by prepending the MGI number with `http://www.informatics.jax.org/accession/`. The resulting link of the above example is:

Presentation

2448567

The scheme in *xlink:href* is equal to *mi*

The locator is an MI number which identifies a record in the EMBL-EBI IntAct database for Molecular Interactions. No roles are to be specified. Example:

XML

```
MI:<ce:inter-ref id="interref14"
  xlink:href="mi:0218">0218</ce:inter-ref>
```

Note that only the number is linked.

The HTTP URL is constructed from the MI URI by prepending the MI number with `http://www.ebi.ac.uk/ontology-lookup/?termId=MI:`. The resulting link of the above example is:

Presentation

MI:0218

Note: This protocol is used in the FEBS structured summaries. There the content of the `ce:inter-ref` element is the name of the interaction.

The scheme in *xlink:href* is equal to *mint*

The locator is a MINT number which identifies a record in the Molecular INTeraction database. No roles are to be specified. Example:

XML

```
MINT-<ce:inter-ref id="interref12"
  xlink:href="mint:6166710">6166710</ce:inter-ref>
```

Note that only the number is linked.

The HTTP URL is constructed from the MINT URI by prepending the MINT number with `http://mint.bio.uniroma2.it/mint/search/interaction.do?interactionAc=MINT-`. The resulting link of the above example is:

Presentation

MINT-6166710

Note: This protocol is used in the FEBS structured summaries. There the string 'MINT-' is included in the content of the `ce:inter-ref` element.

The scheme in *xlink:href* is equal to *ncbi-geo*

The locator is an NCBI GEO accession number, assigned by the NIH genetic sequence database (www.ncbi.nlm.nih.gov, an annotated collection of all publicly available DNA sequences). No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="ncbi-geo:GSE6364">...</ce:inter-ref>
```

The HTTP URL for an NCBI GEO accession number is constructed by prepending the accession number with `http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=`. The resulting link of the above example is:

Presentation

GSE6364

The scheme in *xlink:href* is equal to *ncbi-mga*

The locator is an NCBI MGA accession number, assigned by the NIH genetic sequence database (www.ncbi.nlm.nih.gov, an annotated collection of all publicly available DNA sequences). No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="ncbi-mga:AMAAA0000001">...</ce:inter-ref>
```

The HTTP URL for an NCBI MGA accession number is constructed by prepending the accession number with `http://www.ncbi.nlm.nih.gov/nuccore/`. The resulting link of the above example is:

Presentation

AMAAA0000001

The scheme in *xlink:href* is equal to *ncbi-mmdb*

The locator is an NCBI MMDB accession number, assigned by the NIH genetic sequence database (www.ncbi.nlm.nih.gov, an annotated collection of all publicly available DNA sequences). No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="ncbi-mmdb:51190">...</ce:inter-ref>
```

The HTTP URL for an NCBI MMDB accession number is constructed by prepending the accession number with `http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=search&db=structure&doptcmdl=genbank&term=`. The resulting link of the above example is:

Presentation

51190

The scheme in *xlink:href* is equal to *ncbi-n*

The locator is an NCBI nucleotide accession number, assigned by the NIH genetic sequence database (www.ncbi.nlm.nih.gov, an annotated collection of all publicly available DNA sequences). No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="ncbi-n:AB026824">...</ce:inter-ref>
```

The HTTP URL for an NCBI nucleotide accession number is constructed by prepending the accession number with `http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=search&db=nucleotide&doptcmdl=genbank&term=`. The resulting link of the above example is:

Presentation

AB026824

The scheme in *xlink:href* is equal to *ncbi-p*

The locator is an NCBI protein accession number, assigned by the NIH genetic sequence database (www.ncbi.nlm.nih.gov, an annotated collection of all publicly available DNA sequences). No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="ncbi-p:Q9JJS7">...</ce:inter-ref>
```

The HTTP URL for an NCBI protein accession number is constructed by prepending the accession number with `http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=search&db=protein&doptcmdl=genbank&term=`. The resulting link of the above example is:

Presentation

Q9JJS7

The scheme in *xlink:href* is equal to *ncbi-tnm*

The locator is an NCBI Taxonomy accession number, assigned by the NIH genetic sequence database (www.ncbi.nlm.nih.gov, an annotated collection of all publicly available DNA sequences). No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="ncbi-tnm:7254">...</ce:inter-ref>
```

The HTTP URL for an NCBI Taxonomy accession number is constructed by prepending the accession number with `http://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id=`. The resulting link of the above example is:

Presentation

7254

The scheme in *xlink:href* is equal to *ncbi-wgs*

The locator is an NCBI WGS accession number, assigned by the NIH genetic sequence database (www.ncbi.nlm.nih.gov, an annotated collection of all publicly available DNA sequences). No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="ncbi-wgs:AAAA01000001">...</ce:inter-ref>
```

The HTTP URL for an NCBI WGS accession number is constructed by prepending the accession number with: `http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=search&db=nucleotide&doptcmdl=genbank&term=`. The resulting link of the above example is:

Presentation

AAAA01000001

The scheme in *xlink:href* is equal to *nif-antibody*

The locator is an NIF Antibody registry number. The Antibody Register is a set of unique identifiers for antibody reagents and keeps track of data generated using a specific antibody (www.antibodyregistry.org). No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="nif-antibody:AB_54620">...</ce:inter-ref>
```

The HTTP URL for an NIF Antibody registry URL is constructed by prepending the NIF number with `http://antibodyregistry.org/`. The resulting link of the above example is:

Presentation

AB_54620

The scheme in *xlink:href* is equal to *omim*

The locator is an OMIM number which identifies a record in Online Mendelian Inheritance in Man, a database containing a catalog of human genes and genetic disorders. No roles are to be specified.

XML

```
MIM <ce:inter-ref id="interref11"
  xlink:href="omim:601240">601240</ce:inter-ref>
```

Note that only the number is linked.

The HTTP URL for an OMIM number is constructed by prepending the OMIM number with `http://omim.org/entry/`. The resulting link of the above example is:

Presentation

601240

The scheme in *xlink:href* is equal to *pdb*

The locator is a Worldwide Protein Data Bank accession number which identifies a record in the Worldwide Protein Data Bank. Example:

XML

```
<ce:inter-ref id="interref15"
  xlink:href="pdb:2pmz">2pmz</ce:inter-ref>
```

The HTTP URL for viewing the molecule in the FirstGlance tool is constructed from the PDB URI by prepending the PDB accession number with `http://firstglance.jmol.org/fg.htm?mol=`. The resulting link of the above example is:

Presentation

2pmz

The scheme in *xlink:href* is equal to *pmid*

The locator is a Pubmed ID which identifies an abstract at Pubmed. No roles are to be specified. Example:

XML

```
PMID: <ce:inter-ref id="interref16"
  xlink:href="pmid:19011746">19011746</ce:inter-ref>
```

Note that only the number is linked.

The HTTP URL for PMIDs is constructed from the PMID URI by prepending the PMID with `http://www.ncbi.nlm.nih.gov/pubmed/`. The resulting link of the above example is:

Presentation

PMID: 19011746

The scheme in *xlink:href* is equal to *pride*

The locator is a ProteomeXchange ID which identifies a dataset in ProteomeCentral. Data deposits into the ProteomeXchange (of which PRIDE is a large contributor) is mandatory for the proteomics community. No roles are to be specified.

XML

```
<ce:inter-ref id="interref65"
    xlink:href="pride:PXD000770">PXD000770</ce:inter-ref>
```

The HTTP URL for a ProteomeXchange ID is constructed by prepending the ID with `http://proteomecentral.proteomexchange.org/cgi/GetDataset?ID=`. The resulting link of the above example is:

Presentation

PXD000770

The scheme in *xlink:href* is equal to *rgd*

The locator is an RGD number. The Rat Genome Database (www.rgd.mcw.edu) is a collection of genetic and genomic information about the rat. No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="rgd:1351014">...</ce:inter-ref>
```

The HTTP URL for an RGD number is constructed by prepending the RGD number with `http://rgd.mcw.edu/rgdweb/report/gene/main.html?id=`. The resulting link of the above example is:

Presentation

1351014

The scheme in *xlink:href* is equal to *share*

The locator is a SHARE file name. SHARE is a web portal for creating and sharing executable research papers. No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="share:XP-TUe_TTC11_GrGen_v2.vdi">...</ce:inter-ref>
```

The HTTP URL for a SHARE file is constructed by prepending the file name with `http://share20.eu/?page=ConfigureNewSession&vdi=`. The resulting link of the above example is:

Presentation

XP-TUe_TTC11_GrGen_v2.vdi

The scheme in *xlink:href* is equal to *sid*

The locator holds the non-formatted PII of the article itself, a slash and the so-called anchortext corresponding to the enclosed structure reference. No roles are to be specified.

XML

```
<ce:inter-ref id="interref9"
    xlink:href="sid:S0040403901014216/2"><ce:bold>2</ce:bold>
    </ce:inter-ref>
```

This scheme is used for Dymond linking (i.e. external object linking for chemical structures).

The scheme in *xlink:href* is equal to *tair*

The locator is an Arabidopsis number assigned by TAIR. The Arabidopsis Information Resource (TAIR) maintains a database of genetic and molecular biology data for the model higher plant *Arabidopsis thaliana*. No roles are to be specified.

XML

```
<ce:inter-ref id="interref4"
    xlink:href="tair:AT1G01020">AT1G01020</ce:inter-ref>
```

The HTTP URL for a TAIR number is constructed by prepending the number with `http://www.arabidopsis.org/servlets/TairObject?type=locus&name=`. The example results in the following link:

Presentation

AT1G01020

The scheme in *xlink:href* is equal to *uniprotkb*

The locator is a Uniprot number which identifies a record in UniProtKB, the Universal Protein Resource Knowledgebase. No roles are to be specified. Example:

XML

```
uniprotkb:<ce:inter-ref id="interref13"
  xlink:href="uniprotkb:Q9H0H5">Q9H0H5</ce:inter-ref>
```

Note that only the number is linked.

The HTTP URL is constructed from the UniProtKB URI by prepending the UniProtKB number with `http://www.uniprot.org/uniprot/`. The resulting link of the above example is:

Presentation

uniprotkb:Q9H0H5

Note: This protocol is used in the FEBS structured summaries. There the content of the `ce:inter-ref` element is the name of the protein.

The scheme in *xlink:href* is equal to *wb-gene*

The locator is a WormBase gene number. WormBase is an international consortium providing the research community with information concerning the genetics, genomics and biology of *C. elegans* and related nematodes. No roles are to be specified. Example:

XML

```
<ce:inter-ref id="interref4"
    xlink:href="wb-gene:WBGene00010049">...</ce:inter-ref>
```

The HTTP URL for a WB Gene URI is constructed by prepending the WB Gene number with `http://www.wormbase.org/species/c_elegans/gene/`. The resulting link of the above example is:

Presentation

WBGene00010049

The scheme in *xlink:href* is equal to *wb-protein*

The locator is a WormBase protein number. WormBase is an international consortium providing the research community with information concerning the genetics, genomics and biology of *C. elegans* and related nematodes. No roles are to be specified. Example:

XML

```
<ce:inter-ref id="interref4"
    xlink:href="wb-protein:WP:CE02807">...</ce:inter-ref>
```

The HTTP URL for a WB Protein URI is constructed by prepending the WB Protein number with `http://www.wormbase.org/species/c_elegans/protein/`. The resulting link of the above example is:

Presentation

WP:CE02807

The scheme in *xlink:href* is equal to *wb-strain*

The locator is a WormBase strain number. WormBase is an international consortium providing the research community with information concerning the genetics, genomics and biology of *C. elegans* and related nematodes. No roles are to be specified. Example:

XML

```
<ce:inter-ref id="interref4"
    xlink:href="wb-strain:RB877">...</ce:inter-ref>
```

The HTTP URL for a WB Strain URI is constructed by prepending the WB Strain number with `http://www.wormbase.org/species/c_elegans/strain/`. The resulting link of the above example is:

Presentation

RB877

The scheme in *xlink:href* is equal to *zfin*

The locator is a ZFIN number. The Zebrafish Model Organism Database (ZFIN) is an on-line database of information for zebrafish researchers. No roles are to be specified. Example:

XML

```
<ce:inter-ref id="interref4"
    xlink:href="zfin:ZDB-GENO-960809-7">...</ce:inter-ref>
```

The HTTP URL for a ZFIN URI is constructed by prepending the ZFIN number with `http://zfin.org/`. The resulting link of the above example is:

Presentation

ZDB-GENO-960809-7

Web resources

Links to Web resources are subject to so-called reference rot. A link to a resource may stop working after some time (“link rot”), or the linked content may change over time (“content drift”) possibly to the extent that it becomes no longer representative of the initially referenced content.

A solution to this problem is to create a snapshot of the linked content and then preserve its URL and the date of access. These can be captured in attributes `versionurl` and `versiondate`, respectively. The former attribute can contain multiple URLs.

Relation with DTD 4

Prior to DTD 5, `inter-ref` had three attributes: `locator-type`, `locator` and `object-type`.

`locator-type` corresponds to the scheme part of `xlink:href`. The schemes have the same names as the former `locator-type` attribute, except for `xxx-archive`, which now is called `arxiv`, in agreement with the change of name of the preprint service it refers to.

`locator` corresponds to the path part of `xlink:href`.

`object-type` corresponds to `xlink:role`. The roles have the same names as the former `object-type` attribute, prepended by the string

`http://www.elsevier.com/xml/linking-roles/`.

XLink aspects

`ce:inter-ref` has an attribute `xlink:type` with the fixed value `simple`. This makes it into a simple link according to the XLink standard. The `xlink:href` and `xlink:role` attributes comply with the XLink requirements for a simple link. Thus `ce:inter-ref` can be processed by general XLink software.

Rendering notes

If the rendering application cannot deal with ce:inter-ref, or the scheme in attribute xlink:href, it should not complain and merely output the content of the element. If the content is empty, then the rendering application may provide another method to reach the destination, e.g. a button or a hyperlink containing the xlink:href attribute. The element ce:inter-ref does not generate any presentation.

Decoding the URI

The value of the attribute xlink:href is a URI-reference. Therefore it is encoded according to the rules for URIs. It is also XML encoded. The URI-encoded xlink:href values can be used in web products as follows.

First the XML encoding (character entities) must be resolved, which is automatically done by parsers and other XML tools.

In the ftp, ftps, http, https or mailto schemes the xlink:href values are URLs or email addresses. They can be used directly as URLs in web products.

In the other schemes the xlink:href values are not URLs. When URLs are constructed from these values, they must be properly encoded. The identifiers in the xlink:href values may contain special characters, esp. & and ?. These characters have a reserved meaning in a URL. Therefore they must be escaped as %26 and %3F.

For example, the following is (theoretically) a valid xlink:href value:

doi:10.1049/S0004&3702(02)00193?5

But the following URL, derived from it, is not valid:

https://doi.org/10.1049/S0004&3702(02)00193?5

The valid form of the derived URL is

https://doi.org/10.1049/S0004%263702(02)00193%3F5

Linking services

The xlink:href attribute uses a number of privately defined schemes, which can only be resolved by special algorithms containing knowledge of the specific scheme. Often such an algorithm resolves the ce:inter-ref element to a hyperlink on the web with an http URL. Collections of such resolved hyperlinks may be held in linking services. The links in such services are so-called third-party links, one end of which is the ce:inter-ref element in the article, the other end being the resolved URL. To make it easier to use a ce:inter-ref element as a link end for such third-party links, it has a required ID attribute.

Copy edit considerations

The value of the attribute xlink:href is a URI-reference. Therefore it must be encoded according to the rules for URIs. After its URI-encoded form has been determined, it must also be XML encoded, i.e., the XML-reserved characters must be encoded as character entities, esp. &, must be encoded as &.

In the ftp, ftps, http, https or mailto schemes the xlink:href values are URLs or email addresses. It may be assumed that the URL as given by the author in the manuscript is correct, and can be inserted as is in the XML file, after XML encoding (esp. &).

It is useful to check whether the general form of the URL is correct. ftp, ftps, http and https URLs have the following general form:

`http://server.domain.cy/path/to/file?arg1=value1&arg2=value2#name`

where the CGI arguments (the part between the `?` and the `#`) and the fragment identifier (the part after the `#`) are optional. A `mailto` email address has the following general form:

`mailto:i.person@domain.cy`

For the other URI schemes usually only the identifier is given in the manuscript, and the proper URI form must be determined. The following rules are applicable.

- The URI-encoded form of the identifier may only consist of alphanumeric characters and characters from the set
  `"-" | "_" | "." | "!" | "~" | "*" | "'" | "(" | ")"`
- In addition, in URIs of the `doi`, `arxiv`, and `sid` schemes, the character "/" may appear, as follows:
  doi. `doi:10.publid/identifier`
  arxiv. `arxiv:/category/number`
  sid. `sid:pii/fid`
- All other characters must be escaped. The escaped form is of the form `%hex`, where `hex` denotes the hexadecimal ASCII value of the character, e.g. `%3A` for the colon and `%20` for the space.

For example, the FIZ identifier `85:2535122` and the astronomical object 'LC 123' must be marked up with the following `xlink:href` values:

```
xlink:href="fiz:85%3A2535122"
xlink:href="aoi:LC%20123"
```

Version history

As of CEP 1.1.5, the inter-ref scheme `pii` is deprecated.

The `genbank` scheme is deprecated as it is replaced by the various `ncbi` schemes. Scheme `embl` is a synonym for `genbank` and is hence also deprecated.

Attributes `versionurl` and `versiondate` were added in CEP 1.5.0. Also, entity `%math;` was added to `%text.data;`.

See also

`ce:cross-ref`, `ce:cross-refs`, `ce:inter-refs`, `ce:intra-ref`, `ce:intra-refs`, `ce:grant-sponsor`

Table 6: Allowed inter-ref schemes

Scheme	Explanation/source
afnd	Allele Frequency Net Database ID
aoi	Astronomical object identifier
arxiv	arXiv.org e-print archive address
ascl	Astrophysics Source Code Library
astm	ASTM number
bioproject	Biological Project Library
ccdc	CCDC number
cran	CRAN ID
cryptodb	CryptoDB ID
ctgov	*ClinicalTrials.gov* record number
doi	Digital object identifier
embl	EMBL accession number (deprecated)
eslide	eSlide
fiz	FIZ database
flybase	Bioinformatics database
ftp	
ftps	
fungidb	FungiDB ID
genbank	Genbank accession number (deprecated)
geoscenic	Geoscenic
gsa	Genome Sequence Archive
http	
https	
igsn	International Geo Sample Number
mailto	
mgi	Mouse Genome Informatics
mi	MI number
mint	MINT number
mm	Multimedia ID
ncbi-geo	NCBI GEO accession number
ncbi-mga	NCBI MGA accession number
ncbi-mmdb	NCBI MMDB accession number
ncbi-n	NCBI Nucleotide accession number
ncbi-p	NCBI Protein accession number
ncbi-tnm	NCBI Taxonomy accession number
ncbi-wgs	NCBI WGS accession number
nif-antibody	NIF Antibody Registry
omim	OMIM number
pdb	Protein Data Bank accession number
plasmodb	PlasmoDB ID
pmid	Pubmed ID
pombase	PomBase ID
pride	ProteomeXchange dataset ID
rgd	Rat Genome Database
rrid	SciCrunch Research Resource Identifier
share	Executable research papers
sid	Structure ID in item, Dymond linking
tair	Arabidopsis number (TAIR)
toxodb	ToxoDB ID
tritrypdb	TritrypDB ID
uniprotkb	Uniprot number
wb-gene	WormBase for gene
wb-protein	WormBase for protein
wb-strain	WormBase for strain
zfin	Zebrafish model organism database

ce:inter-ref-end

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:inter-ref-end      ( ce:inter-ref-title? )>
<!ATTLIST  ce:inter-ref-end
           xlink:type            ( locator )       #FIXED "locator"
           xlink:label           ( inter-ref-end ) #FIXED "inter-ref-end"
           xlink:role            CDATA             #IMPLIED
           xlink:href            CDATA             #REQUIRED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:inter-ref-end      ( ce:inter-ref-title? )>
<!ATTLIST  ce:inter-ref-end
           xlink:type            ( locator )       #FIXED "locator"
           xlink:label           ( inter-ref-end ) #FIXED "inter-ref-end"
           xlink:role            CDATA             #IMPLIED
           xlink:href            CDATA             #REQUIRED
           versionurl            CDATA             #IMPLIED
           versiondate           CDATA             #IMPLIED>
```

Description

Each ce:inter-ref-end element denotes a link target within an ce:inter-refs element.

Usage

See ce:inter-ref and ce:inter-refs.

Version history

Attributes versionurl and versiondate were added in CEP 1.5.0.

ce:inter-ref-title

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:inter-ref-title    ( %text.data; )*>
<!ATTLIST  ce:inter-ref-title
           xlink:type            ( title )         #FIXED "title">
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:inter-ref-title    ( %text.data; )*>
<!ATTLIST  ce:inter-ref-title
           xlink:type            ( title )         #FIXED "title">
```

Description

The ce:inter-ref-title element contains the text for one destination, to show for the parent ce:inter-ref-end element when multiple links are shown in a selection list.

Usage

See ce:inter-refs.

Version history

In CEP 1.5.0 entity %math; was added to %text.data;.

ce:inter-refs

Declaration

Model (CEPs 1.1.0–1.1.6)

```
<!ELEMENT  ce:inter-refs        ( ce:inter-refs-text?, ce:inter-ref-
                                  end+, ce:inter-refs-link )>
<!ATTLIST  ce:inter-refs
           xlink:type           ( extended )      #FIXED "extended">
```

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  ce:inter-refs        ( ce:inter-refs-text?, ce:inter-ref-
                                  end+, ce:inter-refs-link )>
<!ATTLIST  ce:inter-refs
           id                   ID                #IMPLIED
           xlink:type           ( extended )      #FIXED "extended">
```

Description

The ce:inter-refs element is the one-to-many-links version of ce:inter-ref, *q.v.* It is an extended link according to the XLink standard.

Usage

The ce:inter-refs element contains a ce:inter-refs-text element, one or more ce:inter-ref-end elements and a ce:inter-refs-link element.

The ce:inter-refs-text element contains the text that is popularly seen as "text to click on"; it may be absent. It is the text seen in a rendering of the document, e.g. "Parts I–IV". Both the hyperlinks to the individual destinations and descriptive labels (e.g., "Part III") are included in the other subelements of the parent ce:inter-refs.

Each ce:inter-ref-end element denotes a link target. Its attribute xlink:href determines the actual link. Its attribute xlink:role is used to indicate what kind of object is to be expected at the other end of the link. Both attributes follow the same rules as the attributes of the same name of ce:inter-ref, *q.v.* The subelement ce:inter-ref-end contains an optional ce:inter-ref-title element, whose content is the text to show for this link when multiple links are shown in a selection list.

The ce:inter-refs-link element is empty. Its presence is required by the XLink standard.

XML

```
<ce:inter-refs id="irs1">
  <ce:inter-refs-text id="interref3">
    AI631510&ndash;AI631512</ce:inter-refs-text>
  <ce:inter-ref-end xlink:href="genbank:AI631510">
    <ce:inter-ref-title>AI631510</ce:inter-ref-title>
  </ce:inter-ref-end>
  <ce:inter-ref-end xlink:href="genbank:AI631511">
    <ce:inter-ref-title>AI631511</ce:inter-ref-title>
  </ce:inter-ref-end>
  <ce:inter-ref-end xlink:href="genbank:AI631512">
```

```
      <ce:inter-ref-title>AI631512</ce:inter-ref-title>
    </ce:inter-ref-end>
    <ce:inter-refs-link/>
  </ce:inter-refs>
```

Presentation

AI631510–AI631512 (in the PDF file)
AI631510, AI631511 and AI631512 (in a fictive online environment)

XLink aspects

ce:inter-refs has an attribute xlink:type with the fixed value extended. This makes it into an extended link according to the XLink standard. Its child elements also have several fixed xlink attributes, which determine their XLink meaning, in compliance with the XLink standard. Thus ce:inter-refs can be processed by general XLink software.

The same example, with all fixed attributes shown explicitly:

XML

```
<ce:inter-refs id="irs5" xlink:type="extended">
  <ce:inter-refs-text id="interref3" xlink:type="resource"
    xlink:label="inter-refs-start">
    AI631510&ndash;AI631512</ce:inter-refs-text>
  <ce:inter-ref-end xlink:type="locator"
    xlink:label="inter-ref-end" xlink:href="genbank:AI631510">
    <ce:inter-ref-title
      xlink:type="title">AI631510</ce:inter-ref-title>
  </ce:inter-ref-end>
  <ce:inter-ref-end xlink:type="locator"
    xlink:label="inter-ref-end" xlink:href="genbank:AI631511">
    <ce:inter-ref-title
      xlink:type="title">AI631511</ce:inter-ref-title>
  </ce:inter-ref-end>
  <ce:inter-ref-end xlink:type="locator"
    xlink:label="inter-ref-end" xlink:href="genbank:AI631512">
    <ce:inter-ref-title
      xlink:type="title">AI631512</ce:inter-ref-title>
  </ce:inter-ref-end>
  <ce:inter-refs-link xlink:type="arc"
    xlink:from="inter-refs-start" xlink:to="inter-ref-end"/>
</ce:inter-refs>
```

Its interpretation in terms of the XLink standard is as follows. A link is indicated from the current position (the local resource) to some other positions not in this document (the remote resources).

The ce:inter-refs-text element is the local resource, which is indicated by its attribute xlink:type="resource".

The ce:inter-ref-end elements are the remote resources, which is indicated by their xlink:type="locator" attribute.

The actual links are created by the ce:inter-refs-link element, which is indicated by its xlink:type="arc" attribute. It links from xlink:from="inter-refs-start" to xlink:to="inter-ref-end". The former points to the ce:inter-refs-text element, which has the xlink:label="inter-refs-start" attribute. The latter points to

both ce:inter-ref-end elements, which both have the xlink:label="inter-ref-end" attribute.

Each of the ce:inter-ref-end elements has an optional ce:inter-ref-title element, with an xlink:type="title" attribute. They serve as a human readable title of the ce:inter-ref-end element, making it easier for applications to create the selection list for one-to-many links.

Linking services

The same considerations regarding linking services apply as for ce:inter-ref, *q.v.* The ce:inter-ref-title has a required ID attribute, since it is the local resource, which can be the link end of third-party links.

Version history

The id attribute was added in CEP 1.2.0.

Rendering notes

The text contained in ce:inter-refs-text appears in any rendering. The destinations contained in ce:inter-ref-title can be used to obtain a selection list.

See also

ce:cross-ref, ce:cross-refs, ce:inter-ref

ce:inter-refs-link

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:inter-refs-link    EMPTY>
<!ATTLIST  ce:inter-refs-link
           xlink:type            ( arc )           #FIXED "arc"
           xlink:from            ( inter-refs-start )
                                                   #FIXED "inter-refs-start"
           xlink:to              ( inter-ref-end ) #FIXED "inter-ref-end">
```

Description

The ce:inter-refs-link element is empty. Its presence in ce:inter-refs is required by the XLink standard.

Usage

See ce:inter-refs.

ce:inter-refs-text

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:inter-refs-text    ( %text.data; )*>
<!ATTLIST  ce:inter-refs-text
           id                    ID               #IMPLIED
           xlink:type            ( resource )     #FIXED "resource"
           xlink:label           ( inter-refs-start )
                                                  #FIXED "inter-refs-start">
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:inter-refs-text    ( %text.data; )*>
<!ATTLIST  ce:inter-refs-text
           id                    ID               #IMPLIED
           xlink:type            ( resource )     #FIXED "resource"
           xlink:label           ( inter-refs-start )
                                                  #FIXED "inter-refs-start">
```

Description

The ce:inter-refs-text element contains the text that is popularly seen as “text to click on” within a ce:inter-refs element. Clicking on this text may lead to more than one destination.

Usage

See ce:inter-refs.

Version history

In CEP 1.5.0 entity %math; was added to %text.data;.

ce:intra-ref

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:intra-ref          ( %text.data; )*>
<!ATTLIST  ce:intra-ref
           id                    ID               #IMPLIED
           xlink:type            ( simple )       #FIXED "simple"
           xlink:role            CDATA            #IMPLIED
           xlink:href            CDATA            #REQUIRED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:intra-ref          ( %text.data; )*>
<!ATTLIST  ce:intra-ref
           id                    ID               #IMPLIED
           xlink:type            ( simple )       #FIXED "simple"
           xlink:role            CDATA            #IMPLIED
           xlink:href            CDATA            #REQUIRED>
```

Description

The ce:intra-ref element is used to reference an object "under control of the publisher". Examples are cross-references to destinations within other chapters of the same book. The ce:intra-ref element is a simple link according to the XLink standard.

Usage

The ce:intra-ref element is a versatile element used to refer to foreign objects under control of the publisher. Its content is popularly seen as "text to click on", but it may be empty. The target, given in the attribute xlink:href must be outside the document that contains ce:intra-ref.

An example is a cross-reference to a section in another chapter of a book. The element ce:cross-ref cannot be used, since the destination ID must be in the same file.

While ce:inter-ref takes the user out of the application, ce:intra-ref remains within the realm of the application; in practice, the destination will be within the same book or serial issue. In such cases, the XML validation tools, run on the whole collection of files belonging to the book, check that the destination IDs exist. However, the application must not assume that the target is in existence in the application. The application activates the link when the target document is present.

The attribute xlink:href determines the actual link. The attribute xlink:role is used to indicate what kind of object is to be expected at the other end of the link. Both attributes follow the same general rules as the attributes of the same name of ce:inter-ref, *q.v.* In the element ce:intra-ref there are only two valid values for the scheme in xlink:href: pii and doi. These schemes do not allow a value for the xlink:role attribute.

XML

```
<ce:intra-ref id="intraref1"
    xlink:href="pii:S0140-6736(05)70368-8">...</ce:intra-ref>
```

The pii scheme is most commonly used for referring to destinations *within* other chapters of the same book. The destination ID is found after the #.

XML

```
<ce:intra-ref id="intraref2"
    xlink:href="pii:S0004-3702(02)00193-5">...</ce:intra-ref>
```

XML

```
<ce:intra-ref id="intraref3"
    xlink:href="pii:S0004-3702(02)00193-5#sec7">...</ce:intra-ref>
```

Relation with DTD 4

Element intra-ref of DTD 4.3 and earlier was used in the context of linked textboxes. Since linked textboxes are now an integral part of the item, ce:cross-ref can be used for that purpose.

XLink aspects

ce:intra-ref has an attribute xlink:type with the fixed value simple. This makes it into a simple link according to the XLink standard. The xlink:href and xlink:role attributes comply with the XLink requirements for a simple link. Thus ce:intra-ref can be processed by general XLink software. For more information, see ce:inter-ref.

Rendering notes

If the rendering application cannot deal with ce:intra-ref, or the scheme in attribute xlink:href, it should not complain and merely output the content of the element. If the content is empty, then the rendering application may provide another method to reach the destination, e.g. a button or a hyperlink containing the xlink:href attribute. The element ce:intra-ref does not generate any presentation.

Version history

Prior to DTD 5.0, intra-ref used a location mechanism based on entities. It was only useful for cross-referencing between linked textboxes and the main document. Linked textboxes are now included in the main file itself, and the usage has changed to cross-references between book chapters, indexes, etc.

As of CEP 1.1.5, the intra-ref scheme doi is deprecated. In CEP 1.5.0 entity %math; was added to %text.data;.

See also

ce:cross-ref, ce:cross-refs, ce:inter-ref, ce:inter-refs, ce:intra-refs

ce:intra-ref-end

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:intra-ref-end      ( ce:intra-ref-title? )>
<!ATTLIST  ce:intra-ref-end
           xlink:type            ( locator )       #FIXED "locator"
           xlink:label           ( intra-ref-end ) #FIXED "intra-ref-end"
           xlink:role            CDATA             #IMPLIED
           xlink:href            CDATA             #REQUIRED>
```

Description

Each ce:intra-ref-end element denotes a link target within an ce:intra-refs element.

Usage

See ce:intra-refs.

ce:intra-ref-title

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:intra-ref-title    ( %text.data; )*>
<!ATTLIST  ce:intra-ref-title
           xlink:type            ( title )         #FIXED "title">
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:intra-ref-title    ( %text.data; )*>
<!ATTLIST  ce:intra-ref-title
           xlink:type            ( title )         #FIXED "title">
```

Description

The ce:intra-ref-title element contains the text for one destination, to show for the parent ce:intra-ref-end element when multiple links are shown in a selection list.

Usage

See ce:intra-refs.

Version history

In CEP 1.5.0 entity %math; was added to %text.data;.

ce:intra-refs

Declaration

Model (CEPs 1.1.0–1.1.6)

```
<!ELEMENT  ce:intra-refs          ( ce:intra-refs-text, ce:intra-ref-end+,
                                    ce:intra-refs-link )>
<!ATTLIST  ce:intra-refs
           xlink:type             ( extended )      #FIXED "extended">
```

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  ce:intra-refs          ( ce:intra-refs-text, ce:intra-ref-end+,
                                    ce:intra-refs-link )>
<!ATTLIST  ce:intra-refs
           id                     ID                #IMPLIED
           xlink:type             ( extended )      #FIXED "extended">
```

Description

The ce:intra-refs element is the one-to-many-links version of ce:intra-ref, *q.v.* It is an extended link according to the XLink standard.

Usage

The function of the element ce:intra-refs is identical to ce:inter-refs, but the existence of the destinations is guaranteed. This is similar to the simple-link variant ce:intra-ref.

The ce:intra-refs element contains a ce:intra-refs-text element, one or more ce:intra-ref-end elements and a ce:intra-refs-link element.

The ce:intra-refs-text element contains the text that is popularly seen as "text to click on"; it may be absent. It is the text seen in a rendering of the document, e.g. "[37, Sections 7–10]". Both the hyperlinks to the individual destinations and descriptive labels (e.g., "[37, Section 9]") are included in the other subelements of the enclosing ce:intra-refs.

Each ce:intra-ref-end element denotes a link target. Its attribute xlink:href determines the actual link. Its attribute xlink:role is used to indicate what kind of object is to be expected at the other end of the link. Both attributes follow the same rules as the attributes of the same name of ce:intra-ref, *q.v.* The subelement ce:intra-ref-end contains an optional ce:intra-ref-title element, whose content is the text to show for this link when multiple links are shown in a selection list.

The ce:intra-refs-link element is empty. Its presence is required by the XLink standard.

XML

```
<ce:intra-refs id="iars263">
  <ce:intra-refs-text id="intraref8">Figs. 1 and 2
    in Chapter 2</ce:intra-refs-text>
  <ce:intra-ref-end xlink:href="pii:S0167-8396(00)00009-1#fig1">
    <ce:intra-ref-title>Fig. 1</ce:intra-ref-title>
  </ce:intra-ref-end>
  <ce:intra-ref-end xlink:href="pii:S0167-8396(00)00009-1#fig2">
```

```
      <ce:intra-ref-title>Fig. 2</ce:intra-ref-title>
      </ce:intra-ref-end>
    <ce:intra-refs-link/>
  </ce:intra-refs>
```

XLink aspects

ce:intra-refs has an attribute xlink:type with the fixed value extended. This makes it into a extended link according to the XLink standard. Its child elements also have several fixed xlink attributes, which determine their XLink meaning, in compliance with the XLink standard. Thus ce:intra-refs can be processed by general XLink software. Please refer to ce:inter-refs, where a more detailed illustration is given.

Linking services

The same considerations regarding linking services apply as for ce:intra-ref, *q.v.* The ce:intra-ref-title has a required ID attribute, since it is the local resource, which can be the link end of third-party links.

Version history

The id attribute was added in CEP 1.2.0.

Rendering notes

The text contained ce:inter-refs-text appears in any rendering. The destinations contained in ce:inter-ref-title can be used to obtain a selection list.

See also

ce:cross-ref, ce:cross-refs, ce:inter-ref, ce:inter-refs, ce:intra-ref

ce:intra-refs-link

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:intra-refs-link    EMPTY>
<!ATTLIST  ce:intra-refs-link
           xlink:type            ( arc )           #FIXED "arc"
           xlink:from            ( intra-refs-start )
                                                   #FIXED "intra-refs-start"
           xlink:to              ( intra-ref-end ) #FIXED "intra-ref-end">
```

Description

The ce:intra-refs-link element is empty. Its presence in ce:intra-refs is required by the XLink standard.

Usage

See ce:intra-refs.

ce:intra-refs-text

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:intra-refs-text    ( %text.data; )*>
<!ATTLIST  ce:intra-refs-text
           id                    ID               #IMPLIED
           xlink:type            ( resource )     #FIXED "resource"
           xlink:label           ( intra-refs-start )
                                                  #FIXED "intra-refs-start">
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:intra-refs-text    ( %text.data; )*>
<!ATTLIST  ce:intra-refs-text
           id                    ID               #IMPLIED
           xlink:type            ( resource )     #FIXED "resource"
           xlink:label           ( intra-refs-start )
                                                  #FIXED "intra-refs-start">
```

Description

The ce:intra-refs-text element contains the text that is popularly seen as “text to click on” within a ce:intra-refs element. Clicking on this text may lead to more than one destination.

Usage

See ce:intra-refs.

Version history

In CEP 1.5.0 entity %math; was added to %text.data;.

ce:intro

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:intro              ( ce:para+ )>
```

Model (CEPs 1.1.6–1.6.0)

```
<!ELEMENT  ce:intro              ( ce:para+ )>
<!ATTLIST  ce:intro
           id                    ID               #IMPLIED
           role                  CDATA            #IMPLIED
           view                  %view;           'all'>
```

Description

The element ce:intro contains a brief introduction.

Usage

The element ce:intro consists of one or more paragraphs, ce:para. It is used for short introductory paragraphs, e.g. in a book chapter, a book volume, a bibliography, an index, a glossary or a textbox.

Version history

The id, role and view attributes were added in CEP 1.1.6.

ce:isbn

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:isbn              ( %string.data; )*>
```

Description

The element ce:isbn is available to uniquely identify a book project.

Usage

The element ce:isbn is used in the identification portions of books DTDs to identify the book project. It contains the ISBN or ISBN-13 in its formatted form.

XML

```
<ce:isbn>0-13-065567-8</ce:isbn>
<ce:isbn>978-0-13-065567-7</ce:isbn>
```

Version history

This element was added in CEP 1.1.0.

ce:issn

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:issn              ( %string.data; )*>
```

Description

The element ce:issn is available to uniquely identify a serial publication, e.g. a journal.

Usage

The element ce:issn is used in the identification portions of serial publications, and contains an ISSN in its formatted form.

XML

```
<ce:issn>0369-8114</ce:issn>
```

Version history

This element was added in CEP 1.1.0.

ce:italic

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:italic            ( %richstring.data; )*>
```

Description

The element ce:italic is a font changing element (p. 184). It is used to obtain italic.

Usage

XML

```
<ce:italic>This text is in italic</ce:italic>
```

Presentation

This text is in italic

Formulae should be captured in MathML. This is not enforced for very simple formulae — these can be structured with text effect elements.

XML

```
<mml:math>
  <mml:mrow>
    <mml:mi>p</mml:mi>
    <mml:mo>+</mml:mo>
    <mml:mi>q</mml:mi>
    <mml:mo>=</mml:mo>
    <mml:mi>r</mml:mi>
  </mml:mrow>
</mml:math>
```

Presentation

$p + q = r$

Version history

Prior to DTD 5.0, this element was called `it`.

See also

For more information see the section on text effects (p. 184). See also the font changing elements ce:bold, ce:cross-out, ce:monospace, ce:sans-serif, ce:small-caps and ce:underline.

ce:keyword

Declaration

Model (CEPs 1.1.0–1.1.6)

```
<!ELEMENT  ce:keyword          ( ce:text, ce:keyword* )>
```

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  ce:keyword          ( ce:text, ce:keyword* )>
<!ATTLIST  ce:keyword
           id                  ID              #IMPLIED>
```

Description

The element ce:keyword is used to capture a keyword or classification code.

Usage

Keywords and classification codes can be captured with element ce:keyword as plain text (ce:text), as a link to a database (ce:inter-ref), or both. Note that ce:text is %text.data; and/or ce:inter-ref while ce:inter-ref is %text.data;.

XML

```
<ce:keywords id="kwds0010">
  <ce:keyword id="kwd0020">
    <ce:text><ce:inter-ref id="ir0010" xlink:type="simple"
      xlink:href="ascl:1201.001">1201.001</ce:inter-ref></ce:text>
  </ce:keyword>
  ...
</ce:keywords>
```

Presentation

Keywords: 1201.001; . . .

XML

```
<ce:keywords id="kwds0030">
  <ce:keyword id="kwd0040">
    <ce:text>Clinical trial <ce:inter-ref id="interref20"
      xlink:href="ctgov:NCT00222573">NCT00222573</ce:inter-ref>
    </ce:text>
  </ce:keyword>
  ...
</ce:keywords>
```

Presentation

Keywords: Clinical trial NCT00222573; . . .

Version history

Prior to DTD 5.0, this element was called kwd. The id attribute was added in CEP 1.2.0. In CEP 1.4.0 the model of ce:text was changed, enabling the use of element ce:inter-ref.

See also

ce:keywords

ce:keywords

Declaration

Model (CEPs 1.1.0–1.1.4)

```
<!ELEMENT  ce:keywords          ( ce:section-title?, ce:keyword+ )>
<!ATTLIST  ce:keywords
           class                CDATA             "keyword"
           xml:lang             %language;        #IMPLIED>
```

Model (CEP 1.1.5)

```
<!ELEMENT  ce:keywords          ( ce:section-title?, ce:keyword+ )>
<!ATTLIST  ce:keywords
           class                CDATA             "keyword"
           xml:lang             %iso639;          #IMPLIED>
```

Model (CEP 1.1.6)

```
<!ELEMENT  ce:keywords          ( ce:section-title?, ce:keyword+ )>
<!ATTLIST  ce:keywords
           view                 %view;            'all'
           class                CDATA             "keyword"
           xml:lang             %iso639;          #IMPLIED>
```

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  ce:keywords          ( ce:section-title?, ce:keyword+ )>
<!ATTLIST  ce:keywords
           id                   ID                #IMPLIED
           view                 %view;            'all'
           class                CDATA             "keyword"
           xml:lang             %iso639;          #IMPLIED>
```

Description

Sets of keywords form a keyword group, `ce:keywords`, which may occur in various classes in an article.

Usage

A keyword group consists of a sequence of keywords or classification codes, `ce:keyword`. Keywords can be nested one level deep.

The element `ce:keywords` has four attributes. The language of the keywords (if applicable), if different from the language of the article, should be specified in the `xml:lang` attribute. See ISO 639 set of entities (p. 192) for an overview of the allowed language codes.

The `id` can be used to uniquely identify the keyword group. The attribute `view` is used to indicate in which views the keyword group must appear. Its default is to appear in all views. See also the section Views (p. 193).

The type of keywords or classification scheme is given by the attribute `class`. This attribute is of type `CDATA` so that additional values can be added without a DTD update. The only values allowed for `class` are described below.

- `keyword` is the default. It is used for ordinary keywords. Second-order keywords can be captured using a nested keyword.

  XML

```
<ce:keywords id="kws01">
  <ce:section-title id="st01">Keywords</ce:section-title>
  <ce:keyword id="k01">
    <ce:text>Electroplating</ce:text></ce:keyword>
  <ce:keyword id="k02">
    <ce:text>Electrodeposited photoresist</ce:text></ce:keyword>
  <ce:keyword id="k03">
    <ce:text>3D fabrication</ce:text></ce:keyword>
</ce:keywords>
```

  Presentation

  Keywords: Electroplating; Electrodeposited photoresist; 3D fabrication

- `abr` is used for abbreviations in an abbreviation list. Similar to `ce:nomenclature`, these are the abbreviations used in a document. They are printed at the bottom of the first page of the article like a footnote.

  XML

```
<ce:keywords id="kws02" class="abr">
  <ce:section-title id="st02">Abbreviations</ce:section-title>
  <ce:keyword id="k04">
    <ce:text>mtDNA</ce:text>
    <ce:keyword id="k05">
      <ce:text>mitochondrial DNA</ce:text></ce:keyword>
  </ce:keyword>
  <ce:keyword id="k06">
    <ce:text>WT</ce:text>
      <ce:keyword id="k07">
        <ce:text>wildtype</ce:text></ce:keyword>
  </ce:keyword>
  <ce:keyword id="k08">
    <ce:text>GFP</ce:text>
      <ce:keyword id="k09">
        <ce:text>green fluorescent protein</ce:text>
      </ce:keyword>
  </ce:keyword>
</ce:keywords>
```

  Presentation

  Abbreviations: mtDNA, mitochondrial DNA; WT, wildtype; GFP, green fluorescent protein.

- `astronomy` is used for controlled astronomical keywords, taken from the astronomical thesaurus, used, e.g., in *New Astronomy*. This class replaces the default class `keyword`, which therefore may not be used.

  XML

```
<ce:keywords id="kws03" class="astronomy">
  <ce:section-title id="st03">Keywords</ce:section-title>
  <ce:keyword id="k10">
    <ce:text>Cosmic microwave background</ce:text>
  </ce:keyword>
  <ce:keyword id="k11">
    <ce:text>Cosmology: theory</ce:text>
```

```
    </ce:keyword>
  </ce:keywords>
```

Presentation

Keywords: Cosmic microwave background; Cosmology: theory

- `cell` is to be used for a forthcoming classification scheme used in *Cell*.
- `cras-terre` is used for the subject classification used in the journals of the *Comptes Rendues de l'Académie des Sciences* collection. Each consists of a keyword, or a keyword and a subkeyword.

XML

```
<ce:keywords id="kws04" class="cras-terre">
   <ce:keyword id="k12">
      <ce:text>Géochimie</ce:text>
      <ce:keyword id="k13">
        <ce:text>Géosciences de surface</ce:text>
      </ce:keyword>
   </ce:keyword>
</ce:keywords>
<ce:keywords id="kws05" class="cras-terre" xml:lang="en">
   <ce:keyword id="k14">
      <ce:text>Geochemistry</ce:text>
      <ce:keyword id="k15">
        <ce:text>Surface Geosciences</ce:text>
      </ce:keyword>
   </ce:keyword>
</ce:keywords>
```

Presentation

Géochimie / Géosciences de surface
Geochemistry / Surface Geosciences

- `ctsnet` is used for the CTSNet classifications (Cardiothoracic Surgery Network, www.ctsnet.org). These keywords may not be nested and are not necessarily presented in a rendering application.

XML

```
<ce:keywords id="kws06" class="ctsnet">
  <ce:section-title id="st04">CTSNet
    classification</ce:section-title>
  <ce:keyword id="k16"><ce:text>22</ce:text></ce:keyword>
  <ce:keyword id="k17"><ce:text>23</ce:text></ce:keyword>
</ce:keywords>
```

Presentation

CTSNet classification: 22; 23

- `emtree` is used for controlled keywords from the EMTREE thesaurus.
- `geo` is used for controlled keywords from the geo thesaurus as used in *EPSL Online*. This class replaces the default class `keyword`, which therefore may not be used.

XML

```
<ce:keywords id="kws07" class="geo">
  <ce:section-title id="st055">Keywords</ce:section-title>
  <ce:keyword id="k18">
    <ce:text>fission-track dating</ce:text>
  </ce:keyword>
  <ce:keyword id="k19">
```

```
      <ce:text>uranium disequilibrium</ce:text>
    </ce:keyword>
  </ce:keywords>
```

Presentation

Keywords: fission-track dating; uranium disequilibrium

- `idt` (index terms) is used for entries in a subject index. These keywords may not be nested and are not presented in a rendering of the item itself. By combining the `idt` keywords of various items, e.g., the items in a particular issue, a subject index is created.
- `inchikey` is used for InChIKeys. An InChIKey is a hashed version of an InChI, an IUPAC International Chemical Identifier. InChIKeys are not shown in print nor in PDF files.

XML

```
<ce:keywords id="kws08" class="inchikey">
  <ce:section-title id="st06">InChIKeys</ce:section-title>
  <ce:keyword id="k20">
    <ce:text>WHUUTDBJXJRKMK-MYXYCAHRSA-O</ce:text>
  </ce:keyword>
</ce:keywords>
```

- `inspec-cc` is used for INSPEC classification codes (www.iee.org.uk). Keywords in this class may not be nested.

XML

```
<ce:keywords id="kws09" class="inspec-cc">
  <ce:section-title id="st07">Classification
    codes</ce:section-title>
  <ce:keyword id="k21"><ce:text>A0470</ce:text></ce:keyword>
  <ce:keyword id="k22"><ce:text>A9760L</ce:text></ce:keyword>
</ce:keywords>
```

Presentation

Classification codes: A0470; A9760L

- `inspec-ct` is used for INSPEC classification terms (www.iee.org.uk). Keywords in this class may not be nested.

XML

```
<ce:keywords id="kws10" class="inspec-ct">
  <ce:section-title id="st08">Thesaurus terms</ce:section-title>
  <ce:keyword id="k23"><ce:text>accelerator-based
    transmutation</ce:text></ce:keyword>
  <ce:keyword id="k24">
    <ce:text>haptic interfaces</ce:text></ce:keyword>
</ce:keywords>
```

Presentation

Thesaurus terms: accelerator-based transmutation; haptic interfaces

- `inspec-chi` is used for INSPEC chemical index terms. Keywords in this class may not be nested.

XML

```
<ce:keywords id="kws11" class="inspec-chi">
  <ce:section-title id="st09">Chemical index</ce:section-title>
  <ce:keyword id="k25"><ce:text>LaMnO3/ss</ce:text></ce:keyword>
  <ce:keyword id="k26"><ce:text>La/ss</ce:text></ce:keyword>
```

```
    <ce:keyword id="k27"><ce:text>Mn/ss</ce:text></ce:keyword>
    <ce:keyword id="k28"><ce:text>O3/ss</ce:text></ce:keyword>
    <ce:keyword id="k29"><ce:text>O/ss</ce:text></ce:keyword>
  </ce:keywords>
```

Presentation

Chemical index: LaMnO3/ss; La/ss; Mn/ss; O3/ss; O/ss

- `jel` is a subject classification used in Economics, based on the classification used by the *Journal of Economics Literature* (www.aeaweb.org). These keywords may not be nested.

XML

```
<ce:keywords id="kws12" class="jel">
  <ce:section-title id="st10">JEL
    classification</ce:section-title>
  <ce:keyword id="k30"><ce:text>C1</ce:text></ce:keyword>
  <ce:keyword id="k31"><ce:text>D11</ce:text></ce:keyword>
</ce:keywords>
```

Presentation

JEL classification: C1; D11

- `mat` is used for entries in a "Materials" index. These keywords may not be nested and are not necessarily presented in a rendering application.
- `mesh` is used for controlled keywords taken from the Medical Subject Headings (MeSH, www.nlm.nih.gov/mesh) vocabulary created and updated by the US National Library of Medicine (NLM).

XML

```
<ce:keywords id="kws13" class="mesh">
  <ce:section-title id="st11">MeSH</ce:section-title>
  <ce:keyword id="k32"><ce:text>Asthma</ce:text></ce:keyword>
  <ce:keyword id="k33">
    <ce:text>Motor activity</ce:text></ce:keyword>
  <ce:keyword id="k34"><ce:text>Exercise</ce:text></ce:keyword>
  <ce:keyword id="k35"><ce:text>Incidence</ce:text></ce:keyword>
  <ce:keyword id="k36">
    <ce:text>Epidemiology</ce:text></ce:keyword>
</ce:keywords>
```

Presentation

MeSH
Asthma; Motor activity; Exercise; Incidence; Epidemiology

- `msc` is used for the MSC classification, which evolved from the American Mathematical Society's subject classification (see www.ams.org/msc). A document can have "primary" classifications and additional "secondary" classifications.

XML

```
<ce:keywords id="kws14" class="msc">
  <ce:section-title id="st12">MSC</ce:section-title>
  <ce:keyword id="k37">
    <ce:text>primary</ce:text>
    <ce:keyword id="k38"><ce:text>60K37</ce:text></ce:keyword>
  </ce:keyword>
  <ce:keyword id="k39">
    <ce:text>secondary</ce:text>
    <ce:keyword id="k40"><ce:text>60F17</ce:text></ce:keyword>
```

```
      <ce:keyword id="k41"><ce:text>82D30</ce:text></ce:keyword>
    </ce:keyword>
  </ce:keywords>
```

Presentation

MSC: primary 60K37; secondary 60F17; 82D30

XML

```
  <ce:keywords id="kws15" class="msc">
    <ce:section-title id="st13">MSC</ce:section-title>
    <ce:keyword id="k42"><ce:text>60G50</ce:text></ce:keyword>
    <ce:keyword id="k43"><ce:text>60K35</ce:text></ce:keyword>
  </ce:keywords>
```

Presentation

MSC: 60G50; 60K35

XML

```
  <ce:keywords id="kws16" class="msc">
    <ce:section-title id="st14">MSC</ce:section-title>
    <ce:keyword id="k44">
      <ce:text>primary</ce:text>
      <ce:keyword id="k45"><ce:text>62G20</ce:text></ce:keyword>
      <ce:keyword id="k46"><ce:text>62G30</ce:text></ce:keyword>
      <ce:keyword id="k47"><ce:text>62M05</ce:text></ce:keyword>
    </ce:keyword>
  </ce:keywords>
```

Presentation

MSC: primary 62G20; 62G30; 62M05

- `neurosci` is used to assign "themes" and "topics" (evolved from the Society of Neuroscience, www.elsevier.nl/locate/bres). Topics (such as "Blood–brain barrier") are second-order keywords belonging to the theme ("Cellular and Molecular Biology").

  XML

```
  <ce:keywords id="kws17" class="neurosci">
    <ce:keyword id="k48">
      <ce:text>Cellular and Molecular Biology</ce:text>
      <ce:keyword id="k49">
        <ce:text>Blood-brain barrier</ce:text>
      </ce:keyword>
    </ce:keyword>
  </ce:keywords>
```

  Presentation

  Theme: Cellular and Molecular Biology
  Topic: Blood–brain barrier

- `ocis` is used for OCIS (Optics Classification and Indexing Scheme) classification codes. OCIS is a categorization scheme used by the Optical Society of America to encode the topic of an article or presentation in a 7-digit code.

  XML

```
  <ce:keywords id="kws18" class="ocis">
    <ce:section-title id="st15">OCIS</ce:section-title>
    <ce:keyword id="k50"><ce:text>140.4480</ce:text></ce:keyword>
    <ce:keyword id="k51"><ce:text>140.1550</ce:text></ce:keyword>
    <ce:keyword id="k52"><ce:text>140.3280</ce:text></ce:keyword>
  </ce:keywords>
```

Presentation

OCIS
140.4480; 140.1550; 140.3280

- `pacs` is used for the PACS classification scheme (www.aip.org/pacs). Keywords in this class may not be nested.

  XML

```
<ce:keywords id="kws19" class="pacs">
  <ce:section-title id="st16">PACS</ce:section-title>
  <ce:keyword id="k53"><ce:text>85.25.Cp</ce:text></ce:keyword>
  <ce:keyword id="k54"><ce:text>74.50.+r</ce:text></ce:keyword>
  <ce:keyword id="k55"><ce:text>75.80</ce:text></ce:keyword>
</ce:keywords>
```

  Presentation

  PACS: 85.25.Cp; 74.50.+r; 75.80

- `psycinfo` is used for PsycINFO classifications (www.apa.org/psycinfo). These keywords may not be nested.

  XML

```
<ce:keywords id="kws20" class="psycinfo">
  <ce:section-title id="st17">PsycINFO
    classification</ce:section-title>
  <ce:keyword id="k56"><ce:text>2360</ce:text></ce:keyword>
  <ce:keyword id="k57"><ce:text>3313</ce:text></ce:keyword>
</ce:keywords>
```

  Presentation

  PsycINFO classification: 2360; 3313

- `pubchem` is used for chemical compounds from the PubChem data repository. These keywords may not be nested. The National Center for Biotechnology Information uses the type "NCBI:pubchem-compound" for these keywords.

  XML

```
<ce:keywords id="kws21" class="pubchem">
  <ce:section-title id="st18">Chemical compounds
    studied in this article</ce:section-title>
  <ce:keyword id="k58">
    <ce:text>Nifedipine</ce:text></ce:keyword>
  <ce:keyword id="k59">
    <ce:text>Nitric oxide</ce:text></ce:keyword>
  <ce:keyword id="k60">
    <ce:text>Peroxynitrite</ce:text></ce:keyword>
</ce:keywords>
```

  Presentation

  Chemical compounds studied in this article: Nifedipine; Nitric oxide; Peroxynitrite

- `ranking` is used for Year Books. It is not necessarily represented in a rendering representation.

  XML

```
<ce:keywords id="kws22" class="ranking">
  <ce:section-title id="st19">Evidence
    Ranking</ce:section-title>
  <ce:keyword id="k61"><ce:text>C</ce:text></ce:keyword>
</ce:keywords>
```

Presentation

Evidence Ranking: C

- `rating` is used for Year Books. It is not necessarily represented in a rendering representation.

  XML

```
<ce:keywords id="kws23" class="rating">
  <ce:section-title id="st20">Expert Rating</ce:section-title>
  <ce:keyword id="k62"><ce:text>1</ce:text></ce:keyword>
</ce:keywords>
```

  Presentation

  Expert Rating: 1

- `src` is used for entries in a "Sources" index. These keywords may not be nested and are not necessarily presented in a rendering application.
- `stma` is used for STMA (Statistical Theory & Methods Abstracts, www.cbs.nl/isi) classification codes. These keywords may not be nested.

  XML

```
<ce:keywords id="kws24" class="stma">
  <ce:section-title id="st21">Statistical Theory
    and Method Abstracts</ce:section-title>
  <ce:keyword id="k63"><ce:text>00:050</ce:text></ce:keyword>
  <ce:keyword id="k64"><ce:text>06:900</ce:text></ce:keyword>
</ce:keywords>
```

  Presentation

  Statistical Theory and Method Abstracts: 00:050; 06:900

- `thelancet` is to be used for a forthcoming classification scheme used in *The Lancet*.

Version history

Prior to DTD 5.0, this element was called `kwdg`. In CEP 1.1.1 the value `it` was added to parameter entity `%language;`. As of CEP 1.1.5, all languages contained in `%iso639;` are allowed. The `view` attribute was added in CEP 1.1.6, while the `id` attribute was added in CEP 1.2.0.

See also

`ce:keyword`

ce:label

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:label              ( %text.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:label              ( %text.data; )*>
```

Description

The designation (number, name, label) of various elements is contained in the `ce:label` element.

Usage

The `ce:label` element is used to contain the designation of the parent element, e.g. “2.1.6”, “Fig. 2”, “Plate VII” or “Lemma 1.6”.

XML

```
<ce:affiliation id="aff2"><ce:label>b</ce:label> ...
<ce:footnote id="fn4"><ce:label>4</ce:label> ...
<ce:section id="sec2"><ce:label>2</ce:label> ...
<ce:section id="sec3.1"><ce:label>3.1</ce:label> ...
<ce:enunciation id="lem1.6"><ce:label>Lemma 1.6</ce:label> ...
```

Presentation

[b] Affiliation...
[4] Footnote...
2. Section...
3.1. Section...
Lemma 1.6. ...

Explanation

Note that `ce:label` generates some presentation: the closing full stops and the superscript position of the footnote number are generated by the `ce:label`, whereas they would have to be inserted explicitly in a `ce:cross-ref`. This allows the application to build cross-reference destination lists directly from the content of `ce:label`.

For explanation of the precise usage of `ce:label`, refer to the parents.

The element `ce:label` plays an important role in cross-referencing, especially for one-to-many links.

Version history

Prior to DTD 5.0, this element was called `no`. In CEP 1.5.0 entity `%math;` was added to `%text.data;`.

See also

For more information, see the parent elements, the section Cross-references and the label element (p. 180), `ce:cross-ref`.

ce:last-page

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:last-page          ( %richstring.data; )*>
```

Description

The last page of an item called by a hub file is captured using ce:last-page.

Usage

See ce:pages.

Version history

This element was added in CEP 1.1.0.

See also

ce:include-item, ce:first-page

ce:legend

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:legend            ( ce:simple-para+ )>
```

Description

A ce:legend contains explanatory text belonging to a table or textbox.

Usage

A legend appears at the bottom of a table or a textbox. It contains one or more simple paragraphs, ce:simple-para.

The addition of a legend to a table is an extension to the CALS table model. For more information about tables, see ce:table.

See also

ce:table-footnote

ce:link

Declaration

Model (CEPs 1.1.0–1.2.0)

```
<!ELEMENT  ce:link              EMPTY>
<!ATTLIST  ce:link
           id                   ID                #IMPLIED
           locator              ENTITY            #REQUIRED>
```

Model (CEPs 1.4.0–1.6.0)

```
<!ELEMENT  ce:link              EMPTY>
<!ATTLIST  ce:link
           id                   ID                #IMPLIED
           locator              ENTITY            #REQUIRED
           xlink:type           ( simple )        #IMPLIED
           xlink:role           CDATA             #IMPLIED
           xlink:href           CDATA             #IMPLIED>
```

Description

For the purpose of referring to files external to the XML file, the general element ce:link is provided.

Usage

The element ce:link instructs the rendering application to pull in a file external to the XML file, an *external object*, e.g. artwork, video, audio or supplementary material. What needs to be done with the file depends on the parent element.

ce:link has one mandatory attribute locator which is an entity declared in the document's declaration subset as an external file. The three xlink attributes are optional for backward compatibility reasons but are required to be present. Element ce:link can be identified by the optional id attribute.

XML

```
<!ENTITY fx22 SYSTEM "fx22" NDATA IMAGE>
...
<ce:inline-figure>
  <ce:link id="lk12" locator="fx22" xlink:type="simple"
    xlink:role=
      "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
    xlink:href="pii:S0012365X15000898/fx22"/>
</ce:inline-figure>
...
```

There are two ways for a rendering application to pull in the external object.

The classical way

The locator attribute contains an entity and the application resolves the entity to a file, e.g. fx22.tif. Note that the entity name is the same as the file name. The application also retrieves the type of external object from the entity declaration: APPLICATION, AUDIO, IMAGE, TEXT, VIDEO or XML.

Note that unless a customer explicitly requested otherwise these files are always delivered together with the XML file. The classical way can then be used.

The modern way

The `xlink:href` attribute contains the Elsevier Resource Name (or ERN) of the content object in Elsevier's Virtual Total Warehouse (VTW). In the VTW the ERN is also known as the ecm:identifier. PIIs are one example of ERNs.

The ERN is an identification scheme followed by an ID. In current workflows, the ERN of the object is itself a PII, constructed from the unformatted PII used in the XML file, followed by a slash, followed by the locator of the object. (Note that there is exactly one locator. See `ce:figure` for examples with subfigures.) In future workflows this ID might be another identifier, for instance an Elsevier Generic Identifier (EGI).

The application can use the ERN in the `xlink:href` attribute to access the content object in the VTW using VTW's APIs.

Attribute `xlink:type` has the fixed value `simple`. Attribute `xlink:role` is used to indicate what kind of object is to be expected at the other end of the link. Its value is the VTW content type of the content object. It is a URI of the form

`http://data.elsevier.com/vocabulary/ElsevierContentTypes/<content-type>`

The following content types can be used. For more information see [29] and [30].

Object	Content type
Video	23.2
Image	23.4
Audio	23.5
Interactive image	23.6
Cover	23.7
Gigapixel image	23.8
Multimedia composite	23.9
Supplementary material	46.1

XML

```
<!ENTITY gr3 SYSTEM "gr3" NDATA IMAGE>
...
<ce:inline-figure>
  <ce:link id="gr3" locator="gr3" xlink:type="simple"
    xlink:role=
      "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
    xlink:href="pii:S1050464813006360/gr3"/>
</ce:inline-figure>
...
```

XML

```
<!ENTITY gr1 SYSTEM "gr1" NDATA IMAGE>
...
<ce:inline-figure>
  <ce:link id="gr1" locator="gr1" xlink:type="simple"
    xlink:role=
      "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
    xlink:href="egi:10PS4Z63Q8Q"/>
</ce:inline-figure>
...
```

The modern way can also be applied to legacy material not containing the three `xlink` attributes. The ERN is constructed as mentioned above, unformatted PII plus slash plus locator, and can then be used in the VTW APIs.

Version history

As from CEP 1.1.2 the attribute list no longer contains file-size information. The three XLink attributes were introduced in CEP 1.4.0.

See also

`ce:figure`, `ce:inter-ref`, Entities and the DOCTYPE declaration (p. 14).

ce:list

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:list              ( ce:label?, ce:section-title?,
                                  ce:list-item+ )>
<!ATTLIST  ce:list
           id                   ID              #IMPLIED>
```

Model (CEPs 1.1.6–1.6.0)

```
<!ELEMENT  ce:list              ( ce:label?, ce:section-title?,
                                  ce:list-item+ )>
<!ATTLIST  ce:list
           id                   ID              #IMPLIED
           role                 CDATA           #IMPLIED>
```

Description

The element ce:list is used to capture free-format lists.

Usage

The element ce:list provides a way to capture lists, where the labels are left entirely to the user.

A ce:list has an optional number or label (ce:label) and an optional section title (ce:section-title). It has an optional id attribute so that it can become the target of a cross-reference. Attribute role can be used to assign a specific role. No roles are currently defined.

A list consists of one or more list items, ce:list-item. Each list item can have a ce:label, containing the list item's label, and consists of one ore more paragraphs, ce:para. If the ce:label element is absent, then the item is indented, and the result is a "tab list".

A ce:list-item can have an id so that it can become the target of a cross-reference.

XML

```
<ce:list id="lst003">
  <ce:list-item id="lsti007">
    <ce:label>(iii)</ce:label>
    <ce:para id="p056">Item 3...</ce:para>
  </ce:list-item>
  <ce:list-item id="lsti008">
    <ce:label>(iv)</ce:label>
    <ce:para id="p057">Item 4...</ce:para>
  </ce:list-item>
</ce:list>
```

XML

```
<ce:list id="lst004">
   <ce:list-item id="lsti009">
     <ce:label>&rtrif;</ce:label>
     <ce:para id="p058">Item ...</ce:para>
   </ce:list-item>
```

```
      <ce:list-item id="lsti010">
        <ce:label>&rtrif;</ce:label>
        <ce:para id="p059">Item ...</ce:para>
      </ce:list-item>
    </ce:list>
```

Version history

Prior to DTD 5.0, lists with auto-generated labels could be obtained with the `l` element. The `role` attribute was added in CEP 1.1.6.

See also

`ce:def-list`

ce:list-item

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:list-item          ( ce:label?, ce:para+ )>
<!ATTLIST  ce:list-item
           id                    ID               #IMPLIED>
```

Description

The element ce:list-item is used to capture list items within ce:list.

Usage

See ce:list.

ce:marker

Declaration

Model (CEPs 1.1.0.1, 1.1.4–1.5.0)

```
<!ELEMENT  ce:marker            EMPTY>
<!ATTLIST  ce:marker
           name                 CDATA            #REQUIRED
           alt                  CDATA            #REQUIRED
           altimg               CDATA            #REQUIRED
           altimg-small         CDATA            #REQUIRED>
```

Model (CEPs 1.6.0)

```
<!ELEMENT  ce:marker            EMPTY>
<!ATTLIST  ce:marker
           name                 CDATA            #REQUIRED
           alt                  CDATA            #REQUIRED
           altimg               CDATA            #REQUIRED
           altimg-small         CDATA            #REQUIRED
           role                 CDATA            #IMPLIED>
```

Description

A marker is a small icon which marks a special property of an article. Examples are: ‘Fast track article’, ‘Continuous Medical Education (CME) article’. The marker is usually shown in the Table of Contents of an issue, before or after the title, and on the first page of an article.

Usage

The marker icons are pixel perfect gif files, similarly to all other altimages.

The `name` attribute contains a name for the marker, which allows one to categorize articles with such markers. Applications should ignore marker names unknown to them.

The `alt` attribute contains an alternative text for the marker icon. The text should be a short indication of the category of articles marked by this marker.

The `altimg` attribute contains the name of the marker icon.

The `altimg-small` attribute contains the name of a smaller-sized version of the marker icon. This version should be used when the marker is printed inline, especially with the article title in the Table of Contents.

For the `role` attribute the value `seal-of-replicability` is defined. A “Seal of Replicability” indicates that the published research conforms to a high standard of reproducibility. No other values are defined.

XML

```
<ce:markers>
  <ce:marker name="cme"
             alt="Continuous Medical Education"
             altimg-small="cme_s.gif" altimg="cme_o.gif"/>
  <ce:marker name="swift"
```

```
                alt="Fast Track Article"
                altimg-small="swift_s.gif" altimg="swift_o.gif"/>
    </ce:markers>
```

Explanation

This article has two markers, one indicating that it contains Continuous Medical Education material, the other indicating that it is a fast-track article. The `alt` texts show these meanings as a tool-tip if the icons are not displayed. The icons are delivered in two sizes, called "online" and "small". There is no indication of the actual sizes.

The normal-sized icon is to be shown on the first page of the article. The small icon is to be used inline in the Table of Contents.

Light reading

A marker should not be used for article features which can be derived from the article's content, such as the presence of e-extra material. If web platforms wish to show a marker for such features, they should generate it based on programmatic inspection of the article.

Version history

This element was added in CEPs 1.1.0.1 and 1.1.4. The `role` attribute was added in CEP 1.6.0.

ce:markers

Declaration

Model (CEPs 1.1.0.1, 1.1.4–1.6.0)

```
<!ELEMENT  ce:markers            ( ce:marker+ )>
```

Description

An article may contain multiple ce:marker elements. These are contained in the element ce:markers.

Usage

See ce:marker.

Version history

This element was added in CEPs 1.1.0.1 and 1.1.4.

See also

ce:marker

ce:math

Declaration

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:math              EMPTY>
<!ATTLIST  ce:math
           altimg               CDATA            #REQUIRED>
```

Description

The element ce:math is used to add an image of a mathematical formula without corresponding MathML.

Usage

The empty element ce:math can be used to add an image of a mathematical formula without capturing the corresponding MathML. The image can be a regular (CAP) image or a strip-in image. The attribute altimg contains the name of the image, it is a file name inclusive extension.

This element will only be used very early in the production process.

Version history

Element ce:math was introduced in CEP 1.5.0.

See also

ce:formula, strip-in images (p. 23)

ce:miscellaneous

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:miscellaneous      ( %text.data; )*>
```

Model (CEP 1.1.6)

```
<!ELEMENT  ce:miscellaneous      ( %text.data; )*>
<!ATTLIST  ce:miscellaneous
           role                  CDATA            #IMPLIED>
```

Model (CEPs 1.2.0, 1.4.0)

```
<!ELEMENT  ce:miscellaneous      ( %text.data; )*>
<!ATTLIST  ce:miscellaneous
           id                    ID               #IMPLIED
           role                  CDATA            #IMPLIED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:miscellaneous      ( %text.data; )*>
<!ATTLIST  ce:miscellaneous
           id                    ID               #IMPLIED
           role                  CDATA            #IMPLIED>
```

Description

The ce:miscellaneous element is used to capture miscellaneous history information of the article. It is an optional element within the frontmatter.

Usage

Miscellaneous history information is contained in ce:miscellaneous. The most common information captured using this element is the communicating editor. In principle, each journal can have its own convention.

XML

```
<ce:miscellaneous id="m1">Communicated by M. Nivat</ce:miscellaneous>
```

Presentation

Communicated by M. Nivat

Rendering notes

ce:miscellaneous does not generate any text.

Version history

Prior to DTD 5.0, this element was called misc. The role attribute was added in CEP 1.1.6, while the id attribute was added in CEP 1.2.0. In CEP 1.5.0 entity %math; was added to %text.data;.

ce:monospace

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:monospace          ( %richstring.data; )*>
```

Description

The element ce:monospace is a font changing element (p. 184). It is used to obtain a monospaced typewriter font.

Usage

To obtain a monospaced “typewriter” font, the element ce:monospace is used.

XML

```
<ce:monospace>&lt;ce:monospace&gt;Monospace
    font&lt;/ce:monospace&gt;</ce:monospace>
```

Presentation

```
<ce:monospace>Monospace font</ce:monospace>
```

In combination with text tables or tab lists ce:monospace is popular for capturing computer code fragments; this is also known as verbatim text. To obtain multiple spaces use sequences of nonbreakable spaces .

Version history

Prior to DTD 5.0, this element was called ty.

See also

For more information see the section on text effects (p. 184). See also ce:bold, ce:cross-out, ce:italic, ce:sans-serif, ce:small-caps, ce:underline.

ce:nomenclature

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:nomenclature       ( ce:section-title?, ce:def-list+ )>
```

Model (CEPs 1.1.6–1.6.0)

```
<!ELEMENT  ce:nomenclature       ( ce:section-title?, ce:def-list+ )>
<!ATTLIST  ce:nomenclature
           id                    ID               #IMPLIED
           role                  CDATA            #IMPLIED
           view                  %view;           'all'>
```

Description

Nomenclature, a listing of the terms used in a document, is captured with ce:nomenclature.

Usage

Nomenclature contains one or more listings of terms and definitions used in the document. Each such listing is a ce:def-list within ce:nomenclature.

The title of the nomenclature, mostly "Nomenclature", is captured with the optional subelement ce:section-title.

XML

```
<ce:nomenclature id="nom1">
  <ce:section-title id="st1">Nomenclature</ce:section-title>
  <ce:def-list id="dl1">
    <ce:def-term id="dt1">
      <ce:italic>A<ce:inf>n</ce:inf></ce:italic>
    </ce:def-term>
    <ce:def-description id="dd1">
      <ce:para id="p75">area of nozzle, m<ce:sup>2</ce:sup></ce:para>
    </ce:def-description>
    <ce:def-term id="dt2">
      <ce:italic>C<ce:inf>A</ce:inf></ce:italic>
    </ce:def-term>
    <ce:def-description id="dd2">
      <ce:para id="p76">concentration of CO<ce:inf>2</ce:inf> in solution,
        mol/m<ce:sup>3</ce:sup></ce:para>
    </ce:def-description>
    <ce:def-term id="dt3">
      <ce:italic>C<ce:inf>AG</ce:inf></ce:italic>
    </ce:def-term>
    <ce:def-description id="dd3">
      <ce:para id="p77">concentration of CO<ce:inf>2</ce:inf> in gas
        phase, mol/m<ce:sup>3</ce:sup></ce:para>
    </ce:def-description>
    <ce:def-term id="dt4">
```

```
        <ce:italic>v<ce:sup>*</ce:sup></ce:italic>
      </ce:def-term>
      <ce:def-description id="dd4">
        <ce:para id="p78">friction velocity, m/s</ce:para>
      </ce:def-description>
    </ce:def-list>
    <ce:def-list id="dl2">
      <ce:section-title id="st2">Greek letters</ce:section-title>
      <ce:def-term id="dt5">Φ</ce:def-term>
      <ce:def-description id="dd5">
        <ce:para id="p79">empirical constant</ce:para>
      </ce:def-description>
    </ce:def-list>
  </ce:nomenclature>
```

Presentation

Nomenclature

A_n	area of nozzle, m^2	v^*	friction velocity, m/s
C_A	concentration of CO_2 in solution, mol/m^3	*Greek letters*	
C_{AG}	concentration of CO_2 in gas phase, mol/m^3	Φ	empirical constant

Version history

The `id`, `role` and `view` attributes were added in CEP 1.1.6.

See also

Similar constructs to capture this information are `ce:keywords` with `class` equal to `abr` and `ce:glossary`.

ce:note

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:note              ( ce:simple-para+ )>
```

Description

Within structured bibliographic references, ce:note contains descriptive paragraphs about the reference. It can also contain an endnote.

Usage

A ce:note contains one or more paragraphs, ce:simple-para. In a structured reference, it can occur on its own or after a bibliographic reference. On its own, it is effectively an "endnote", which may coexist beside footnotes and are listed between bibliographic references. After a bibliographic reference, it contains descriptive text about the reference, not to be confused with an sb:comment.

XML

```
<ce:bib-reference id="bib49">
  <ce:label>[49]</ce:label>
  <sb:reference id="sbr62">
    <sb:comment>See the references in</sb:comment>
    <sb:contribution>...</sb:contribution>
    <sb:comment>first published in</sb:comment>
    <sb:host>...</sb:host>
    <sb:comment>also available electronically as</sb:comment>
    <sb:host>...</sb:host>
    <sb:comment>(in Japanese)</sb:comment>
  </sb:reference>
  <ce:note>
    <ce:simple-para id="sp82">This reference explains the usage
      of the comment and note elements. Comments and the other
      components of the sb:reference together form one text. The
      note may contain details about the reference.</ce:simple-para>
  </ce:note>
</ce:bib-reference>
<ce:bib-reference id="bib50">
  <ce:label>[50]</ce:label>
  <ce:note>
    <ce:simple-para id="ssp83">This is a note in between the
      references, an endnote.</ce:simple-para>
  </ce:note>
</ce:bib-reference>
```

Presentation

[49] See the references in … first published in … also available electronically as … (in Japanese).
This reference explains the usage of the comment and note elements. Comments and the other components of the sb:reference together form one text. The note may contain details about the reference.
[50] This is a note in between the references, an endnote.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

ce:note-para

Declaration

Model (CEPs 1.1.0–1.1.4)

```
<!ELEMENT  ce:note-para          ( %note.data; )*>
<!ATTLIST  ce:note-para
           id                    ID               #IMPLIED>
```

Model (CEP 1.1.5)

```
<!ELEMENT  ce:note-para          ( %note.data; )*>
<!ATTLIST  ce:note-para
           id                    ID               #IMPLIED>
```

Model (CEPs 1.1.6–1.4.0)

```
<!ELEMENT  ce:note-para          ( %note.data; )*>
<!ATTLIST  ce:note-para
           id                    ID               #IMPLIED
           role                  CDATA            #IMPLIED
           view                  %view;           'all'>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:note-para          ( %note.data; )*>
<!ATTLIST  ce:note-para
           id                    ID               #IMPLIED
           role                  CDATA            #IMPLIED
           view                  %view;           'all'>
```

Description

Paragraphs of text within footnotes and notes, are captured using the element ce:note-para.

Usage

A note paragraph, ce:note-para, belongs to the lowest-level structuring elements. It contains text and objects structured with the elements in %note.data;, and differs from a full paragraph, ce:para, in that footnotes and floating objects are not allowed.

Version history

In CEP 1.1.5 it became possible to use elements ce:grant-sponsor and ce:grant-number in the content of ce:note-para. The role and view attributes were added in CEP 1.1.6. In CEP 1.5.0 entity %math; was added to %note.data;.

See also

ce:para, ce:simple-para.

ce:other-ref

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:other-ref          ( ce:label?, ce:textref )>
<!ATTLIST  ce:other-ref
           id                    ID               #IMPLIED>
```

Description

The element ce:other-ref is used to capture bibliographic references that cannot be structured.

Usage

If structuring a bibliographic reference in an sb:reference is not possible, then ce:other-ref can be used. Known examples are maps and patents, but also incomplete references can be tagged this way. However, the content of ce:other-ref must be a bibliographic reference; to create reference lists that also contain endnotes the element ce:note can be used.

A bibliographic reference, when tagged using ce:other-ref, needs to be marked up according to the journal style, e.g., if a title should be italics, it should explicitly be marked up.

The element ce:other-ref has an optional ce:label subelement and an id attribute. These are used when the ce:other-ref is part of a multiple reference.

Copy edit considerations

As noted above, a bibliographic reference tagged with ce:other-ref can still contain tagged information. In particular URLs can be tagged (with ce:inter-ref).

XML

```
<ce:bib-reference id="bib15">
  <ce:label>[15]</ce:label>
  <ce:other-ref id="or15">
    <ce:textref>S. Barrett, QuackWatch, Allentown, PA, USA,
      <ce:inter-ref id="ir94"
        xlink:href="http://www.quackwatch.org/">
        http://www.quackwatch.org/</ce:inter-ref>
        [accessed March 2003].</ce:textref>
  </ce:other-ref>
</ce:bib-reference>
```

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

ce:pages

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:pages              ( ce:first-page, ce:last-page? )>
```

Description

The pages of an item called by a hub file are captured using ce:pages.

Usage

The element ce:pages contains a mandatory ce:first-page and an optional ce:last-page.

XML

```
<ce:pages>
  <ce:first-page>37</ce:first-page>
  <ce:last-page>51</ce:last-page>
</ce:pages>
```

XML

```
<ce:pages>
  <ce:first-page>L1</ce:first-page>
  <ce:last-page>L13</ce:last-page>
</ce:pages>
```

XML

```
<ce:pages>
  <ce:first-page>iv</ce:first-page>
</ce:pages>
```

The element ce:last-page is not used when the page range spans a single page.

If the document style is to render a page range as 127–9, then the element ce:last-page must contain 129.

Version history

This element was added in CEP 1.1.0.

See also

ce:include-item

ce:para

Declaration

Model (CEPs 1.1.0–1.1.4)

```
<!ELEMENT  ce:para              ( %par.data; )*>
<!ATTLIST  ce:para
           id                   ID                #IMPLIED
           role                 CDATA             #IMPLIED
           view                 %view;            'all'>
```

Model (CEPs 1.1.5–1.4.0)

```
<!ELEMENT  ce:para              ( %par.data; )*>
<!ATTLIST  ce:para
           id                   ID                #IMPLIED
           role                 CDATA             #IMPLIED
           view                 %view;            'all'>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:para              ( %par.data; )*>
<!ATTLIST  ce:para
           id                   ID                #IMPLIED
           role                 CDATA             #IMPLIED
           view                 %view;            'all'>
```

Description

Paragraphs of text are captured using the element ce:para.

Usage

A paragraph, ce:para, belongs to the lowest-level structuring elements. It contains text and objects structured with the elements in %par.data;.

The attribute id can be used to cross-reference to the paragraph.

The attribute role allows one to categorize paragraphs, and attach a special meaning to them. For instance, it makes it possible to mark a paragraph as a "motto", and handle it in a different way than an ordinary paragraph. Applications should treat roles unknown to them as ordinary paragraphs. The role must belong to a list validated by the XML validation tools. At the time of writing, the following roles exist.

- acknowledgement is used to mark acknowledgement-like paragraphs, such as 'Contributors', 'Conflicts of Interest', etc.
- author is used to identify a paragraph which consists of an author's name. It is only used in book items where the author of a ce:section needs to be indicated.
- background is used to identify a paragraph that contains background information.
- case-study is used to identify a paragraph containing a case study.
- conclusion is used to identify a paragraph that contains conclusions.
- correct-answer is used to indicate that the paragraph contains a correct answer.
- discussion is used to identify a paragraph that contains a discussion.

- `exam-questions` is used to identify the paragraph which contains the actual exam questions. It should only be used for a paragraph in the element `ce:exam-questions`.
- `introduction` is used to mark the introductory paragraphs of an article. Introductory paragraphs are distinguished by some publications, which may print them, e.g., in boldface.
- `motto` is used to turn a paragraph into a motto.

  XML

  ```
  <ce:para id="p01" role="motto">Everything
    has a version number</ce:para>
  ```

- `question` is used to mark a paragraph with a single question and will enforce a special layout.
- `results` is used to identify a paragraph that contains results.

Items can appear in compact, standard and extended *views*. The attribute `view` is used to indicate in which views the paragraph must appear. Its default is to appear in all views. See also the section Views (p. 193).

Version history

In CEP 1.1.5 entity `%text-objects;` was added to `%par.data;`. In CEP 1.5.0 entity `%math;` was added to `%par.data;`.

See also

`ce:note-para`, `ce:simple-para`

ce:pii

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:pii                ( %string.data; )*>
```

Description

The element ce:pii contains the PII of the item.

Usage

Each item must have a PII, a *publisher item identifier*. To identify the document, ce:pii is populated with the PII of the document. The full PII with formatting characters (e.g. parentheses, hyphens) must be used. The different types of PII are described in [27].

For journal articles, an alternative means of identification is the combination of journal code, jid, and article number, aid.

See also

aid, ce:doi, jid

ce:preprint

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:preprint          ( ce:inter-ref )>
```

Description

The element ce:preprint is used to create a link between a document and an associated preprint version.

Usage

Many articles have an associated preprint version, which is stored in a preprint archive. In order to create a link between the article and its associated preprint version, the element ce:preprint is provided. It contains one subelement, ce:inter-ref, which is the actual link. The content of ce:inter-ref is empty in this context.

Only preprints in a pre-defined list of repositories may be referenced, so that correct links can be created. Therefore, only a limited number of values for the scheme in xlink:href are allowed. Presently only arxiv is used.

XML

```
<ce:preprint>
  <ce:inter-ref id="interref8"
    xlink:role="http://www.elsevier.com/xml/linking-roles/preprint"
    xlink:href="arxiv:1606.04017"></ce:inter-ref>
</ce:preprint>
```

Explanation

This generates a link between the article and the associated preprint within the Los Alamos archive, whose URL is http://arxiv.org/abs/1606.04017.

Rendering notes

The element ce:preprint generates no output on paper, but in other media, a link with the preprint database may be created.

See also

ce:inter-ref

ce:presented

Declaration

Model (CEPs 1.1.0–1.1.6)

```
<!ELEMENT  ce:presented          ( %textfn.data; )*>
```

Model (CEPs 1.2.0, 1.4.0)

```
<!ELEMENT  ce:presented          ( %textfn.data; )*>
<!ATTLIST  ce:presented
           id                    ID               #IMPLIED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:presented          ( %textfn.data; )*>
<!ATTLIST  ce:presented
           id                    ID               #IMPLIED>
```

Description

In the head of an item, it is sometimes stated that the article was presented at a certain conference or by a certain person (mostly one of the authors). The ce:presented is provided for this purpose.

Usage

The element ce:presented is an optional subelement of the head. It contains the complete statement identifying the presenter of the article and/or the place where the article was presented.

XML

```
<ce:presented id="pr1">Presented by P. Walmsey</ce:presented>
```

Version history

Prior to DTD 5.0, this element was called prs. The id attribute was added in CEP 1.2.0. In CEP 1.5.0 entity %math; was added to %textfn.data;.

Rendering notes

The text “Presented by” is not generated.

ce:ranking

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:ranking            ( %richstring.data; )*>
```

Description

The element ce:ranking provides a way to mark “important” authors.

Usage

In some scientific disciplines, especially Chemistry, it is common to mark the more important authors. Often, the same symbol is used as the one for corresponding author. If not, or if the particular author is not a corresponding author, ce:ranking can be used to capture the symbol. Conversely, it is not required to mark an author using ce:ranking if the importance is already signalled in other means. Indeed, it is possible that two authors are “important” but one has ce:ranking and the other has a corresponding author footnote (ce:correspondence).

XML

```
<ce:author id="au1"
  author-id="S0090429516900852-f8534793b60adb72922f16de76a69a5d">
  <ce:given-name>Jitendra</ce:given-name>
  <ce:surname>Sharma</ce:surname>
  <ce:ranking>*</ce:ranking>
</ce:author>
<ce:author id="au2"
  author-id="S0090429516900852-dcbe44473bf24b8ffda14b7d03d14f5d">
  <ce:given-name>A.</ce:given-name>
  <ce:surname>Angelucci</ce:surname>
  <ce:ranking>*</ce:ranking>
</ce:author>
```

Presentation

Jitendra Sharma*, A. Angelucci*

See also

ce:author, ce:correspondence

ce:reader-see

Declaration

Model (CEPs 1.1.3–1.4.0)

```
<!ELEMENT  ce:reader-see        ( %text.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:reader-see        ( %text.data; )*>
```

Description

The element ce:reader-see is used to capture general references.

Usage

In indexes that are created by professional indexers, “see” or “see also” entries can appear that do not explicitly point to terms in the index, but instead require the reader’s expertise. In the first example below, taken from the *Encyclopedia of Food Sciences and Nutrition* (Academic Press, San Diego, 2003), the indexer has added an entry “absorption of nutrients” with reference “see *specific nutrients*”. A human reader can interpret this link, but it is not possible or viable to create a link in the XML file. With the element ce:reader-see such references without a link can be captured.

Unlike the elements ce:see and ce:see-also, no text is generated by ce:reader-see.

XML

```
<ce:index-entry id="idx012">
  <ce:index-heading>absorption of nutrients</ce:index-heading>
  <ce:reader-see>see <ce:italic>specific
    nutrients</ce:italic></ce:reader-see>
</ce:index-entry>
```

XML

```
<ce:index-entry id="idx037">
  <ce:index-heading>amines</ce:index-heading>
  ...
  <ce:index-entry id="idx038">
    <ce:index-heading>biogenic</ce:index-heading>
    <ce:reader-see>see <ce:italic>individual
      amines</ce:italic></ce:reader-see>
  </ce:index-entry>
</ce:index-entry>
```

Version history

This element was added in CEP 1.1.3. In CEP 1.5.0 entity %math; was added to %text.data;.

ce:refers-to-document

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:refers-to-document ( ce:doi | ( ce:pii, ce:doi? ) )>
```

Model (CEP 1.1.6)

```
<!ELEMENT  ce:refers-to-document ( ce:doi | ( ce:pii, ce:doi? ) )>
<!ATTLIST  ce:refers-to-document
           role                  CDATA             #IMPLIED>
```

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  ce:refers-to-document ( ce:doi | ( ce:pii, ce:doi? ) )>
<!ATTLIST  ce:refers-to-document
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED>
```

Description

The element ce:refers-to-document is used to refer to another document.

Usage

The element ce:refers-to-document consists of a ce:pii and/or a ce:doi, alternative identifications of one and the same document, which must not be the document in which ce:refers-to-document itself occurs. Although ce:pii is declared optional in the DTD, it must always be present. If both PII and DOI are known, then both elements ce:pii and ce:doi will be present.

It is used to associate the two documents, e.g., to link an erratum with the article that it is an erratum to.

XML

```
<ce:refers-to-document id="rt3">
  <ce:pii>S0031-9201(03)00274-7</ce:pii>
  <ce:doi>10.1016/j.pepi.2003.12.005</ce:doi>
</ce:refers-to-document>
```

Presentation

DOI of original article: https://doi.org/10.1016/j.pepi.2003.12.005.

The attribute role allows one to categorize the associations and handle them differently. Currently only the role `predecessor` is defined. It is used to indicate the previous version of an updated item in cases where the original item still exists.

Version history

This element was introduced in CEP 1.1.0 and replaced `ce:refers-to-article`. The role attribute was added in CEP 1.1.6, while the id attribute was added in CEP 1.2.0.

See also

ce:document-thread

ce:roles

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:roles              ( %richstring.data; )*>
```

Description

A sequence of named roles or job titles appearing after the author name is tagged with ce:roles.

Usage

Roles or job titles of the author may appear after an author name. These are captured using the ce:roles element. Roles or job titles are different from academic titles or degrees, which are part of ce:degrees.

XML

```
<ce:roles>Chairman</ce:roles>
<ce:roles>Past Treasurer of the ACGIH</ce:roles>
<ce:roles>Editor-in-Chief</ce:roles>
<ce:roles>CEO, Reed&ndash;Elsevier</ce:roles>
```

See also

ce:author, ce:degrees, ce:suffix

ce:salutation

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:salutation        ( %text.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:salutation        ( %text.data; )*>
```

Description

If an article begins with a salutation, this can be captured using ce:salutation.

Usage

A salutation may appear at the beginning of the body of an article. It is tagged with ce:salutation.

XML

```
<body>
  <ce:salutation>Sir</ce:salutation>
  <ce:sections>
    <ce:section id="s03">
      <ce:para id="p02">David Brenner and Eric Hall make the
        assumption that our statement regarding ...</ce:para>
      ...
</body>
```

Presentation

Sir—David Brenner and Eric Hall make the assumption that our statement regarding . . .

Version history

In CEP 1.5.0 entity %math; was added to %text.data;.

Rendering notes

Punctuation is generated. Note that the above presentation is a possible one. Instead of an em-dash a comma could be used, or the “Sir” could be typeset in small capitals.

ce:sans-serif

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:sans-serif          ( %richstring.data; )*>
```

Description

The element ce:sans-serif is a font changing element (p. 184). It is used to obtain a sans-serif font.

Usage

XML

```
Here is some <ce:sans-serif>sans-serif text</ce:sans-serif>
```

Presentation

Here is some sans-serif text

Version history

Prior to DTD 5.0, this element was called ssf.

See also

For more information see the section on text effects (p. 184). See also ce:bold, ce:cross-out, ce:italic, ce:monospace, ce:small-caps, ce:underline.

ce:section

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:section          ( ( ( ce:section-title | ( ce:label,
                                 ce:section-title? ) ), %parsec; ) |
                                 ce:section+ )>
<!ATTLIST  ce:section
           id                  ID              #IMPLIED
           role                CDATA           #IMPLIED
           view                %view;          'all'>
```

Description

The element ce:section is used to create sections and subsections.

Usage

Sections and subsections are created using the element ce:section. Nested ce:section elements are used to create subsections. The nesting level determines the level of the section and hence the presentation of the section's number (ce:label) and title (ce:section-title).

A ce:section must have a ce:label and/or a ce:section-title, or it should be the parent of *only* ce:sections.

The optional section number is contained within ce:label without closing punctuation.

XML

```
<ce:section id="sec2">
  <ce:label>2</ce:label>
  <ce:section-title id="sect2">Asia</ce:section-title>
  <ce:section id="sec2.1">
    <ce:label>2.1</ce:label>
    <ce:section-title id="sect2.1">Japan</ce:section-title>
    <ce:para id="p12">...</ce:para>
  </ce:section>
  <ce:section id="sec2.2">
    <ce:label>2.2</ce:label>
    <ce:section-title id="sect2.2>Indonesia</ce:section-title>
    <ce:para id="p13">...</ce:para>
  </ce:section>
</ce:section>
```

Presentation

2. Asia

2.1. Japan

...

2.2. Indonesia

...

A section which contains *only* ce:sections is invisible in the rendering. Therefore it can be used to 'jump' or 'skip' section levels. There can be no text at the skipped level, not even after the contained sections.

XML

```
<ce:section id="s1">
  <ce:section-title id="st1">Level 1</ce:section-title>
  <ce:para id="p2">Some text at level 1</ce:para>
  <ce:section id="s1.1">
    <ce:section id="s1.1.1">
      <ce:section-title id="st1.1.1">Level 3</ce:section-title>
      <ce:para id="p3">Some text at level 3</ce:para>
      <ce:para id="p4">...</ce:para>
    </ce:section>
  </ce:section>
</ce:section>
```

Presentation

Level 1

Level 3

Some text at level 3
...

The attribute `id` is used to cross-reference to the section.

The attribute `role` allows one to categorize sections. For instance, it makes it possible to mark "Materials and Methods" sections, and handle these in different ways than ordinary sections. Applications should treat sections with roles unknown to them as ordinary sections, i.e., unknown roles must be ignored. The role must belong to a list validated by the XML validation tools. The following values for `role` have been defined:

- `acknowledgement`. This role is used to mark acknowledgement-like sections, such as 'Contributors', 'Conflicts of Interest', etc.
- `anatomy`
- `author-disclosure`
- `background`
- `bio-sciences`
- `case-report`. This role is used to identify a case report as is common in medical contexts.
- `case-study`
- `collaborations`
- `conclusion`
- `discussion`
- `diseases`
- `glossary`
- `introduction`
- `materials-methods`. This role is used to identify a materials and methods section.
- `methods`
- `note-added-in-proof`. This role is used to identify a note added in proof section, which is added at proof stage and sometimes appears at the very end of the document.
- `results`. This role is used to identify a results section.
- `SeeAlso`. This role is used in books (encyclopedia) only and indicates a section with cross-references to other parts of the book.

- `sharp`. This role is used in books only and indicates an additional level of heading above level 1 or 2 (a level "1A"). The name is based on the "sharp" (#) in musical notes, which also lifts up the level.
- `source-article`
- `step`

XML

```
<ce:section id="sec3.5" role="materials-methods">
  <ce:label>3.5</ce:label>
  <ce:section-title id="st3.5">Materials and Methods</ce:section-title>
  ...
</ce:section>
```

Explanation

The section has become a "materials and methods" section. The presentation of such a section is style dependent; it is usually displayed in a somewhat smaller font size, but otherwise equal to an ordinary section.

For the Methods Navigator project the following roles were introduced:

- `document`
- `equipment`
- `materials`
- `molecular-functions`
- `molecular-roles`
- `organisms`
- `pathways`
- `phenotypes`
- `process`
- `protocol`
- `purpose`
- `theory`
- `video`

Articles can appear in compact, standard and extended *views*. The attribute `view` is used to indicate in which views the section must appear. Its default is to appear in all views. See also the section Views (p. 193).

Version history

Prior to DTD 5.0, this element was called `sec`.

ce:sections

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:sections          ( %parsec; )>
```

Description

The element ce:sections is a container for sections and paragraphs (%parsec;).

ce:section-title

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:section-title      ( %nondisplay.data; )*>
<!ATTLIST  ce:section-title
           id                    ID                #IMPLIED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:section-title      ( %nondisplay.data; )*>
<!ATTLIST  ce:section-title
           id                    ID                #IMPLIED
           role                  CDATA             #IMPLIED>
```

Description

The element ce:section-title is used to capture section titles.

Usage

Element ce:section-title is used to capture the (section) title of the parent element.

The following elements can have ce:section-title as subelement: ce:abstract, ce:abstract-sec, ce:acknowledgment, ce:bibliography, ce:bibliography-sec, ce:def-list, ce:enunciation, ce:exam-answers, ce:exam-questions, ce:further-reading, ce:further-reading-sec, ce:glossary, ce:glossary-sec, ce:index, ce:index-sec, ce:keywords, ce:list, ce:nomenclature, ce:section, objectives in the Elsevier Book DTD, and issue-sec in the Serials Issue DTD.

The attribute role allows one to handle section titles differently. Currently only the role etoc-only is defined. It is used to indicate that the title is meant only for the electronic version of the item. For instance, an introduction without a title in print can have a bookmark in the PDF or eBook version. The current document contains bookmarks of the form “a...” in the PDF version, which add a useful layer to the navigation.

Version history

Prior to DTD 5.0, this element was called st. Attribute role was addded in CEP 1.5.0. Also, entity %math; was added to %nondisplay.data;.

ce:see

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:see              ( %text.data; )*>
<!ATTLIST  ce:see
           refid               IDREF            #REQUIRED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:see              ( %text.data; )*>
<!ATTLIST  ce:see
           refid               IDREF            #REQUIRED>
```

Description

Within indexes, cross-references of the "see" type are captured with the ce:see element.

Usage

In indexes one is often referred to another, preferred, term. This is common in subject indexes. It is done with the ce:see element which is a specialized version of the ce:cross-ref element. Note that the content of ce:see need not be the same as the content of the heading in the referred ce:index-entry.

XML

```
<ce:index-entry id="idx197">
  <ce:index-heading>Peyrone's salt</ce:index-heading>
  <ce:index-entry id="idx198">
    <ce:index-heading>configuration</ce:index-heading>
    <ce:intra-ref id="intraref246"
      xlink:href="pii:B008043076701001">17</ce:intra-ref>
  </ce:index-entry>
  <ce:index-entry id="idx199">
    <ce:index-heading>history</ce:index-heading>
    <ce:intra-ref id="intraref247"
      xlink:href="pii:B008043076701001">3</ce:intra-ref>
  </ce:index-entry>
</ce:index-entry>
...
<ce:index-entry id="idx258">
  <ce:index-heading>Platosemidiammine chloride</ce:index-heading>
  <ce:see refid="idx197">Peyrone's salt</ce:see>
</ce:index-entry>
```

Presentation

Peyrone's salt
configuration, 17
history, 3
...
Platosemidiammine chloride — *see* Peyrone's salt

Version history

In CEP 1.5.0 entity %math; was added to %text.data;.

See also

ce:see-also

ce:see-also

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:see-also          ( %text.data; )*>
<!ATTLIST  ce:see-also
           refid                IDREF            #REQUIRED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:see-also          ( %text.data; )*>
<!ATTLIST  ce:see-also
           refid                IDREF            #REQUIRED>
```

Description

Within indexes, cross-references of the "see also" type are captured with the ce:see-also element.

Usage

In indexes one is often referred to another, related, term. This is common in subject indexes. It is done with the ce:see-also element which is a specialized version of the ce:cross-ref element. Note that the content of ce:see-also need not be the same as the content of the heading in the referred ce:index-entry.

XML

```
<ce:index-entry id="idx14">
  <ce:index-heading>axiomatizability</ce:index-heading>
  <ce:intra-ref id="intraref19"
    xlink:href="pii:B0444880747002016>1021</ce:intra-ref>
  <ce:see-also refid="idx68">deductive systems</ce:see-also>
  <ce:index-entry id="idx15">
    <ce:index-heading>equational</ce:index-heading>
    <ce:intra-ref id="intraref20"
      xlink:href="pii:B0444880747002016>261</ce:intra-ref>
  </ce:index-entry>
</ce:index-entry>
...
<ce:index-entry id="idx68">
  <ce:index-heading>deductive system</ce:index-heading>
  <ce:intra-ref id="intraref174"
    xlink:href="pii:B0444880747002016">891</ce:intra-ref>
  <ce:index-entry id="idx69">
    <ce:index-heading>for <ce:italic>DL</ce:italic></ce:index-heading>
    <ce:intra-ref id="intraref175"
      xlink:href="pii:B0444880747002016">820</ce:intra-ref>
  </ce:index-entry>
  <ce:index-entry id="idx70">
    <ce:index-heading>for Temporal Logic</ce:index-heading>
    <ce:intra-ref id="intraref176"
      xlink:href="pii:B0444880747002016">1040</ce:intra-ref>
  </ce:index-entry>
</ce:index-entry>
```

Version history

In CEP 1.5.0 entity `%math;` was added to `%text.data;`.

See also

`ce:see`

ce:short-title

Declaration

Model (CEP 1.6.0)

```
<!ELEMENT  ce:short-title        ( %text.data; )*>
<!ATTLIST  ce:short-title
           id                    ID               #IMPLIED>
```

Description

The element ce:short-title contains a shortened title of an article.

Usage

The element ce:short-title is used to capture a short version of the title. The short version can for instance be used in the table of contents of an issue.

XML

```
<head>
  <ce:title id="title0010">
    Efficacy and safety of sirukumab in patients with active
    rheumatoid arthritis refractory to anti-TNF therapy
    (SIRROUND-T): a randomised, double-blind, placebo-controlled,
    parallel-group, multinational, phase 3 study
  </ce:title>
  <ce:short-title id="stitle0010">
    Efficacy and safety of sirukumab in patients with active
    rheumatoid arthritis
  </ce:short-title>
  ...
</head>
```

Version history

This element was introduced in CEP 1.6.0.

ce:simple-para

Declaration

Model (CEPs 1.1.0–1.1.4)

```
<!ELEMENT  ce:simple-para       ( %spar.data; )*>
<!ATTLIST  ce:simple-para
           id                   ID              #IMPLIED
           role                 CDATA           #IMPLIED
           view                 %view;          'all'>
```

Model (CEPs 1.1.5–1.4.0)

```
<!ELEMENT  ce:simple-para       ( %spar.data; )*>
<!ATTLIST  ce:simple-para
           id                   ID              #IMPLIED
           role                 CDATA           #IMPLIED
           view                 %view;          'all'>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:simple-para       ( %spar.data; )*>
<!ATTLIST  ce:simple-para
           id                   ID              #IMPLIED
           role                 CDATA           #IMPLIED
           view                 %view;          'all'>
```

Description

The element ce:simple-para is used to capture paragraphs without floats.

Usage

A simple paragraph, ce:simple-para, belongs to the lowest-level structuring elements. It contains text and objects structured with the elements in %spar.data;, and differs from the full paragraph ce:para in that it cannot contain any floating objects, i.e. no ce:float-anchor.

The attribute id can be used to cross-reference to the paragraph.

The attribute role allows one to categorize simple paragraphs, and attach a special meaning to them. For instance, it makes it possible to mark a simple paragraph as a "caption", and handle it in a different way than an ordinary paragraph. Applications should treat roles unknown to them as ordinary simple paragraphs. The role must belong to a list validated by the XML validation tools. The following roles are defined.

- caption is used to mark paragraphs of a caption that make up the caption proper and provide a description of the figure or table. It should only be used for simple paragraphs in the element ce:caption. Some publications distinguish the paragraphs with this role value from those with role=key, and may print them, e.g., in boldface.
- key is used to mark paragraphs of a caption that contain information about the keys and symbols used in the figure or table. It should only be used for simple paragraphs in the element ce:caption. Some publications distinguish the paragraphs with this role value from those with role=caption.

- `link-pane` is used in paragraphs of a figure caption and enables special treatment of the figure.
- `no-licence` is used in paragraphs of a figure caption and indicates that rights were not granted to include the figure in electronic media. This is used mainly in books.
- `source` is used to mark the last paragraph of a `ce:displayed-quote` as the source.
- `title` is used to mark the first paragraph of a caption (of a figure, table or textbox) as the title.

Items can appear in compact, standard and extended *views*. The attribute `view` is used to indicate in which views the paragraph must appear. Its default is to appear in all views. See also the section Views (p. 193).

The fact that simple paragraphs cannot contain floating objects, does not mean that they cannot contain cross-references to floating objects. For instance, if the only place where "Fig. 3" is referenced is in the caption of Fig. 2 — a simple paragraph context — then that caption contains the cross-references but the float anchor of Fig. 3 appears next to the float anchor of Fig. 2.

Version history

In CEP 1.5.0 entity `%math;` was added to `%spar.data;`.

See also

`ce:note-para`, `ce:para`

ce:small-caps

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:small-caps        ( %richstring.data; )*>
```

Description

The element ce:small-caps is a font changing element (p. 184). It is used to obtain small caps.

Usage

To obtain small caps, use lowercase letters within ce:small-caps. Uppercase letters in this font may or may not be identical to uppercase letters of the surrounding font.

XML

```
<ce:small-caps>This text is in Small Caps</ce:small-caps>.
```

Presentation

THIS TEXT IS IN SMALL CAPS.

Version history

Prior to DTD 5.0, this element was called scp.

See also

For more information see the section on text effects (p. 184). See also ce:bold, ce:cross-out, ce:italic, ce:monospace, ce:sans-serif, ce:underline.

ce:source

Declaration

Model (CEPs 1.1.3, 1.1.4)

```
<!ELEMENT  ce:source            ( %note.data; )*>
```

Model (CEP 1.1.5)

```
<!ELEMENT  ce:source            ( %note.data; )*>
```

Model (CEPs 1.1.6–1.4.0)

```
<!ELEMENT  ce:source            ( %note.data; )*>
<!ATTLIST  ce:source
           id                   ID              #IMPLIED
           role                 CDATA           #IMPLIED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:source            ( %note.data; )*>
<!ATTLIST  ce:source
           id                   ID              #IMPLIED
           role                 CDATA           #IMPLIED>
```

Description

The element ce:source is available to capture the source of an item.

Usage

The element ce:source is used to describe the source of a ce:e-component, a ce:figure, a ce:table, or a ce:textbox.

XML

```
<ce:textbox id="tb4-6">
  <ce:label>Box 4-6</ce:label>
  <ce:source id="src1">From Bethea L, Balazs A: Improving intergenerational
    health care communications, <ce:italic>J Health Commun</ce:italic>
    2(2):129, 1997.</ce:source>
  <ce:textbox-body>
    ...
  </ce:textbox-body>
</ce:textbox>
```

Version history

This element was added in CEP 1.1.3. In CEP 1.1.5 elements ce:anchor, ce:grant-sponsor and ce:grant-number were added to parameter entity %note.data;. The id and role attributes were added in CEP 1.1.6. In CEP 1.5.0 entity %math; was added to %note.data;.

ce:source-text

Declaration

Model (CEP 1.6.0)

```
<!ELEMENT  ce:source-text        ( %string.data; )*>
<!ATTLIST  ce:source-text
           id                    ID                #REQUIRED>
```

Description

The element ce:source-text contains the original text for an element.

Usage

The element ce:source-text is used to capture the original text. It is used in the models of ce:affiliation and ce:bib-reference.

Version history

This element was introduced in CEP 1.6.0.

See also

ce:affiliation, ce:bib-reference

ce:stereochem

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:stereochem        ( ce:compound-struct, ( ce:compound-
                                  formula | ( ce:compound-name,
                                  ce:compound-formula? ) ), ce:compound-
                                  info )>
```

Model (CEPs 1.1.6–1.6.0)

```
<!ELEMENT  ce:stereochem        ( ce:compound-struct, ( ce:compound-
                                  formula | ( ce:compound-name,
                                  ce:compound-formula? ) ), ce:compound-
                                  info )>
<!ATTLIST  ce:stereochem
           id                   ID              #IMPLIED
           role                 CDATA           #IMPLIED
           view                 %view;          'all'>
```

Description

A stereochemistry abstract contains the following details of a chemical compound: structure, name, formula, and all available stereochemical information. For each important chemical compound mentioned in a document, the element ce:stereochem provides a way to capture it.

Usage

The element ce:stereochem contains four subelements, corresponding to each of the parts of a stereochemistry abstract.

The first is ce:compound-struct, which contains a ce:link to a picture showing the chemical structure. The second is the optional ce:compound-name, which contains the compound's name. The third is the optional ce:compound-formula, giving the formula. At least one of these latter two elements should be present. The fourth is ce:compound-info, containing one or more ce:list-item elements with additional stereochemical information.

XML

```
<ce:stereochem id="sc1">
  <ce:compound-struct>
    <ce:link locator="fx7" xlink:type="simple" xlink:role=
      "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
      xlink:href="pii:S2214181215000312/fx1"/>
  </ce:compound-struct>
  <ce:compound-name>(<ce:italic>S</ce:italic>)-2-‿
    <ce:italic>t</ce:italic>-Butyldimethylsolylpent-4-enal‿
  </ce:compound-name>
  <ce:compound-formula>‿
    C<ce:inf>12</ce:inf>H<ce:inf>22</ce:inf>OSi‿
  </ce:compound-formula>
  <ce:compound-info>
```

```
      <ce:list-item id="li1">
        <ce:para id="p27">E.e. &ge; 95%</ce:para>
      </ce:list-item>
      <ce:list-item id="li2">
        <ce:para id="p28">[&alpha;]<ce:sup>25</ce:sup><ce:inf>
          <ce:small-caps>d</ce:small-caps></ce:inf>= ...</ce:para>
      </ce:list-item>
      <ce:list-item id="li3">
        <ce:para id="p29">Source of chirality: Sharpless AE</ce:para>
      </ce:list-item>
      <ce:list-item id="li4">
        <ce:para id="p30">Absolute configuration:
          <ce:italic>S</ce:italic></ce:para>
      </ce:list-item>
    </ce:compound-info>
  </ce:stereochem>
  <ce:stereochem id="sc2">
    <ce:compound-struct>
      <ce:link locator="fx8" xlink:type="simple" xlink:role=
        "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
        xlink:href="pii:S2214181215000324/fx8"/>
    </ce:compound-struct>
    <ce:compound-name>(<ce:italic>S</ce:italic>)-2-‿
      <ce:italic>t</ce:italic>-Butyldimethylsilhex-5-enal‿
    </ce:compound-name>
    <ce:compound-formula>‿
      C<ce:inf>12</ce:inf>H<ce:inf>24</ce:inf>OSi‿
    </ce:compound-formula>
    <ce:compound-info>
      <ce:list-item id="li550">
        <ce:para id="p31">E.e. &ge; 95%</ce:para>
      </ce:list-item>
      <ce:list-item id="li551">
        <ce:para id="p32">[&alpha;]<ce:sup>25</ce:sup><ce:inf>
          <ce:small-caps>d</ce:small-caps></ce:inf>= ...</ce:para>
      </ce:list-item>
      ...
    </ce:compound-info>
  </ce:stereochem>
  <ce:stereochem id="sc3">
    <ce:compound-struct>
      <ce:link locator="fx9" xlink:type="simple" xlink:role=
        "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
        xlink:href="pii:S2214181215000336/fx9"/>
    </ce:compound-struct>
    ...
  </ce:stereochem>
```

Rendering notes

The stereochemistry abstracts, whose nature is much like keywords, are part of the front-matter, even though they may appear elsewhere in the paper publication. For online applications, the intended usage is to collect the stereochemistry abstracts (e.g., per publication) from the articles and to display them together.

Version history

The `id`, `role` and `view` attributes were added in CEP 1.1.6.

ce:subtitle

Declaration

Model (CEPs 1.1.0–1.1.6)

```
<!ELEMENT  ce:subtitle          ( %textfn.data; )*>
```

Model (CEPs 1.2.0, 1.4.0)

```
<!ELEMENT  ce:subtitle          ( %textfn.data; )*>
<!ATTLIST  ce:subtitle
           id                   ID               #IMPLIED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:subtitle          ( %textfn.data; )*>
<!ATTLIST  ce:subtitle
           id                   ID               #IMPLIED>
```

Description

The element ce:subtitle contains the subtitle of an article, chapter, or other item.

Usage

The element ce:subtitle is used to capture the subtitle of an item, e.g. a journal article or book chapter. Parts of the title that form an integral part of the title, e.g. separated from the first part by a colon or an em-dash, are not subtitles. Tables of content tend not to contain subtitles.

XML

```
<ce:title id="t1">The monadic second-order logic of graphs, Part IX:
  Hierarchical decompositions of directed graphs</ce:title>
```

Explanation

Here it is not appropriate to make a division in title and subtitle, because the name of part IX is an integral part of the title.

XML

```
<ce:title id="t1">Hierarchical decompositions
  of directed graphs</ce:title>
<ce:subtitle id="st1">Part IX in a series of papers devoted to monadic
  second-order logic of graphs</ce:subtitle>
```

Version history

In DTDs prior to DTD 5.0, the element sbt fulfilled the function of both ce:subtitle and ce:alt-subtitle; the language was specified in the parent atl element. Attribute id was added in CEP 1.2.0. In CEP 1.5.0 entity %math; was added to %textfn.data;.

See also

ce:alt-title, ce:alt-subtitle, ce:title

ce:suffix

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:suffix            ( %richstring.data; )*>
```

Description

A suffix of the author name, e.g. junior or senior, is captured using ce:suffix.

Usage

A name suffix, mostly denoting a generation, such as “Junior” or “Senior”, is tagged with ce:suffix.

XML

```
<ce:given-name>Sammy</ce:given-name>
<ce:surname>Davis</ce:surname>
<ce:suffix>Sr.</ce:suffix>
```

XML

```
<ce:given-name>Henry</ce:given-name>
<ce:surname>Ford</ce:surname>
<ce:suffix>III</ce:suffix>
```

Version history

In DTDs prior to DTD 5.0, this element was called `jr`.

See also

ce:author, ce:degrees, ce:given-name, ce:roles, ce:surname

ce:sup

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:sup                ( %richstring.data; )*>
<!ATTLIST  ce:sup
           loc                   %loc;              "post">
```

Description

Superscripts are captured using ce:sup.

Usage

Superscripts (superior text) are captured using ce:sup.

The optional attribute loc can have the values pre and post, the latter is equivalent to omitting the attribute altogether. If loc is equal to pre this is to signify that the element belongs to the subsequent object.

XML

```
<ce:sup loc="pre">238</ce:sup><ce:inf loc="pre">92</ce:inf>U
```

Presentation

$^{238}_{92}\mathrm{U}$

By default, a super- and subscript appearing at one object will be displayed stacked, i.e. above each other. Staggered super- and subscripts (for example, ${R^{i}}_{j}{}^{k}$) can only be used in math mode.

See also

ce:inf

ce:surname

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:surname            ( %text.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:surname            ( %text.data; )*>
```

Description

The surname of an author or editor is captured using ce:surname.

Usage

Together with the element ce:given-name, ce:surname forms the name of authors or editors.

XML

```
<ce:given-name>Franklin D.</ce:given-name>
<ce:surname>Roosevelt</ce:surname>
```

Especially for non-Western persons, it is not always clear or known what the given name and the surname is. In some regions of the world, it is even not uncommon to have just one name. In such cases, ce:surname may contain the full name of the person.

XML

```
<ce:author id="au3"
  author-id="S9999999416903246-93238764e09de259f1702a7bf42cff26">
  <ce:surname>Ho Chi Minh</ce:surname>
</ce:author>
```

If the author or editor (especially of a work in the bibliographic reference list) is not a person but an institution or corporation, the name is also tagged using ce:surname. (This should not be confused with a collaboration, ce:collaboration.)

XML

```
<ce:surname>National Board of Safety</ce:surname>
```

Version history

In CEP 1.5.0 entity %math; was added to %text.data;.

See also

ce:author

ce:table

Declaration

Model (CEPs 1.1.0–1.1.1)

```
<!ELEMENT  ce:table          ( ce:label?, ce:caption?, ( tgroup |
                               ce:link )+, ce:legend?, ce:table-
                               footnote* )>
<!ATTLIST  ce:table
           frame             ( top|bottom|topbot|all|sides|none )
                                          #IMPLIED
           colsep            %yesorno;     #IMPLIED
           rowsep            %yesorno;     #IMPLIED
           id                ID            #IMPLIED
           xmlns             CDATA         #FIXED %CALS.xmlns;
           xmlns:tb          CDATA         #FIXED %ESTB.xmlns;>
```

Model (CEP 1.1.2)

```
<!ELEMENT  ce:table          ( ce:label?, ce:caption*, ( %copy-
                               right; )?, ( tgroup | ce:link )+,
                               ce:legend?, ce:table-footnote* )>
<!ATTLIST  ce:table
           frame             ( top|bottom|topbot|all|sides|none )
                                          #IMPLIED
           colsep            %yesorno;     #IMPLIED
           rowsep            %yesorno;     #IMPLIED
           id                ID            #IMPLIED
           xmlns             CDATA         #FIXED %CALS.xmlns;
           xmlns:tb          CDATA         #FIXED %ESTB.xmlns;>
```

Model (CEPs 1.1.3–1.1.5)

```
<!ELEMENT  ce:table          ( ce:label?, ce:caption*, ce:source?,
                               ( %copyright; )?, ( tgroup |
                               ce:link )+, ce:legend?, ce:table-
                               footnote* )>
<!ATTLIST  ce:table
           frame             ( top|bottom|topbot|all|sides|none )
                                          #IMPLIED
           colsep            %yesorno;     #IMPLIED
           rowsep            %yesorno;     #IMPLIED
           id                ID            #IMPLIED
           xmlns             CDATA         #FIXED %CALS.xmlns;
           xmlns:tb          CDATA         #FIXED %ESTB.xmlns;>
```

Model (CEP 1.1.6)

```
<!ELEMENT  ce:table          ( ce:label?, ce:caption*, ce:source?,
                               ( %copyright; )?, ( tgroup |
                               ce:link )+, ce:legend?, ce:table-
                               footnote* )>
<!ATTLIST  ce:table
           frame             ( top|bottom|topbot|all|sides|none )
                                          #IMPLIED
           colsep            %yesorno;     #IMPLIED
           rowsep            %yesorno;     #IMPLIED
           id                ID            #IMPLIED
```

```
          role                CDATA             #IMPLIED
          xmlns               CDATA             #FIXED %CALS.xmlns;
          xmlns:tb            CDATA             #FIXED %ESTB.xmlns;>
```

Model (CEP 1.2.0)

```
<!ELEMENT  ce:table           ( ce:label?, ce:caption*, ce:source?,
                                ( %copyright; )?, ce:keywords*,
                                ( tgroup | ce:link )+, ce:legend?,
                                ce:table-footnote* )>
<!ATTLIST  ce:table
           frame              ( top|bottom|topbot|all|sides|none )
                                                #IMPLIED
           colsep             %yesorno;         #IMPLIED
           rowsep             %yesorno;         #IMPLIED
           id                 ID                #IMPLIED
           role               CDATA             #IMPLIED
           xmlns              CDATA             #FIXED %CALS.xmlns;
           xmlns:tb           CDATA             #FIXED %ESTB.xmlns;>
```

Model (CEPs 1.4.0–1.6.0)

```
<!ELEMENT  ce:table           ( ce:label?, ce:caption*, ce:alt-
                                text*, ce:source?, ( %copyright; )?,
                                ce:keywords*, ( tgroup | ce:link )+,
                                ce:legend?, ce:table-footnote* )>
<!ATTLIST  ce:table
           frame              ( top|bottom|topbot|all|sides|none )
                                                #IMPLIED
           colsep             %yesorno;         #IMPLIED
           rowsep             %yesorno;         #IMPLIED
           id                 ID                #IMPLIED
           role               CDATA             #IMPLIED
           xmlns              CDATA             #FIXED %CALS.xmlns;
           xmlns:tb           CDATA             #FIXED %ESTB.xmlns;>
```

Description

A table is captured with `ce:table`.

Usage

Aligning text in rows and columns is done using tables. The element `ce:table` is used to capture a table. Two kinds of tables are distinguished: displayed tables and floating tables.

Displayed tables are contained within the container element `ce:display`. They appear, surrounded by some white space, where they are mentioned in the text.

Floating tables are grouped, together with the other floating objects such as figures, in a `ce:floats` container at the beginning of the document. Floating tables must be referred to from within the text using a `ce:cross-ref` or a `ce:cross-refs` and a `ce:float-anchor` is used to indicated the position near to which the floating table must appear. So, each floating table is referenced by at least one cross-reference and exactly one float anchor.

XML

```
see <ce:cross-refs id="crs11" refid="tbl1 tbl2 tbl3">Tables
1&ndash;3</ce:cross-ref><ce:float-anchor refid="tbl1"/>
<ce:float-anchor refid="tbl2"/><ce:float-anchor refid="tbl3"/>
```

A table begins with a ce:label (mandatory for floating tables) and an optional ce:caption with a description of the table. There can be multiple captions for different languages and/or roles; each caption must have a different role or language.

Optional subelements ce:alt-text can be used to capture alternative descriptions of the table. Possible values for the role attribute are short for a short description (30 words or less) and long for a long description. Different alternative texts must have a different role.

The optional ce:source element is used to describe the source of the table. The optional ce:copyright element is used if the copyright owner of the table differs from the copyright owner of the document.

The optional ce:keywords subelements are used to capture keywords for the table. They can be different from the keywords of the item. Normally these are not rendered but are used to improve searching and annotation. The same constraints as for the item keywords apply (e.g., allowed class values, nesting).

The actual table is contained in tgroup elements, and/or is delivered as images, ce:link. The tgroup contains an extended CALS table, described in more detail in Chapter 12.

Below the tabular content the legend, ce:legend, and table footnotes, ce:table-footnote, are found.

Version history

The subelement ce:copyright was introduced in CEP 1.1.2. At the same time, the caption was made repeatable. Subelement ce:source was introduced in CEP 1.1.3.

The role attribute was added in CEP 1.1.6, and subelement ce:keywords in CEP 1.2.0. In CEP 1.4.0 the subelement ce:alt-text was introduced.

See also

For more information, see Chapter 12.

ce:table-footnote

Declaration

Model (CEPs 1.1.0–1.1.5)

```
<!ELEMENT  ce:table-footnote     ( ce:label, ce:note-para+ )>
<!ATTLIST  ce:table-footnote
           id                    ID                #REQUIRED>
```

Model (CEPs 1.1.6–1.6.0)

```
<!ELEMENT  ce:table-footnote     ( ce:label, ce:note-para+ )>
<!ATTLIST  ce:table-footnote
           id                    ID                #REQUIRED
           role                  CDATA             #IMPLIED>
```

Description

A table footnote is a footnote referenced and displayed within a table, and coded with ce:table-footnote.

Usage

The element ce:table-footnote occurs zero or more times at the end of ce:table, after the optional ce:legend and contains the table footnotes.

The first subelement of ce:table-footnote is a mandatory ce:label element. It contains the symbol of the table footnote with implied presentation style, i.e., if the style of the footnote symbol is a superior letter, the ce:label contains only the letter.

The text of the table footnote is contained in one or more note paragraphs, ce:note-para.

There must always be a cross-reference to a table footnote. Note that it is not allowed to cross-reference to a table footnote from outside the table in which the table footnote appears.

A table footnote should not be confused with a ce:legend.

Version history

The role attribute was added in CEP 1.1.6.

ce:text

Declaration

Model (CEPs 1.1.0–1.2.0)

```
<!ELEMENT  ce:text              ( %text.data; )*>
<!ATTLIST  ce:text
           id                   ID                #IMPLIED>
```

Model (CEP 1.4.0)

```
<!ELEMENT  ce:text              ( %textlink.data; )*>
<!ATTLIST  ce:text
           id                   ID                #IMPLIED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:text              ( %textlink.data; )*>
<!ATTLIST  ce:text
           id                   ID                #IMPLIED>
```

Description

The element ce:text is a container element for text.

Usage

Various elements contain ce:text as a general container for text with content model %textlink.data;. The exact content of %textlink.data; is described in the section on Parameter entities (p. 187).

Version history

In CEP 1.4.0 the model of ce:text was changed to %textlink.data;. In CEP 1.5.0 entity %math; was added to %textlink.data;.

See also

ce:textfn, ce:textref

ce:textbox

Declaration

Model (CEPs 1.1.0–1.1.1)

```
<!ELEMENT  ce:textbox          ( ce:label?, ce:caption?, ce:copyright?,
                                 ce:textbox-head?, ce:textbox-body,
                                 ce:textbox-tail? )>
<!ATTLIST  ce:textbox
           id                  ID                  #IMPLIED
           role                CDATA               #IMPLIED>
```

Model (CEP 1.1.2)

```
<!ELEMENT  ce:textbox          ( ce:label?, ce:caption*, ( %copy-
                                 right; )?, ce:textbox-head?,
                                 ce:textbox-body, ce:textbox-tail? )>
<!ATTLIST  ce:textbox
           id                  ID                  #IMPLIED
           role                CDATA               #IMPLIED>
```

Model (CEPs 1.1.3–1.1.6)

```
<!ELEMENT  ce:textbox          ( ce:label?, ce:caption*, ce:source?,
                                 ( %copyright; )?, ce:textbox-head?,
                                 ce:textbox-body, ce:textbox-tail? )>
<!ATTLIST  ce:textbox
           id                  ID                  #IMPLIED
           role                CDATA               #IMPLIED>
```

Model (CEP 1.2.0)

```
<!ELEMENT  ce:textbox          ( ce:label?, ce:caption*, ce:source?,
                                 ( %copyright; )?, ce:keywords*,
                                 ce:textbox-head?, ce:textbox-body,
                                 ce:textbox-tail? )>
<!ATTLIST  ce:textbox
           id                  ID                  #IMPLIED
           role                CDATA               #IMPLIED>
```

Model (CEPs 1.4.0, 1.5.0)

```
<!ELEMENT  ce:textbox          ( ce:label?, ce:caption*, ce:alt-
                                 text*, ce:source?, ( %copyright; )?,
                                 ce:keywords*, ce:textbox-head?,
                                 ce:textbox-body, ce:textbox-tail? )>
<!ATTLIST  ce:textbox
           id                  ID                  #IMPLIED
           role                CDATA               #IMPLIED>
```

Model (CEP 1.6.0)

```
<!ELEMENT  ce:textbox          ( ce:label?, ce:caption*, ce:alt-
                                 text*, ce:source?, ( %copyright; )?,
                                 ce:keywords*, ce:legend?, ce:textbox-
                                 head?, ce:textbox-body, ce:textbox-
                                 tail? )>
<!ATTLIST  ce:textbox
           id                  ID                  #IMPLIED
           role                CDATA               #IMPLIED>
```

Description

A textbox (in this context written as one word) is an object similar to a figure, but rather than a graphic it contains typeset material, which could be regarded as a small document in its own right, sometimes displayed with a coloured background. The element ce:textbox is provided for this purpose.

Usage

The element ce:textbox can be used in a variety of ways. Similar to ce:figure it is embedded within ce:display or ce:floats. A displayed textbox appears in the text at the position where it is used, separated from the surrounding text with white space. A floating textbox, collected among the floats in ce:floats appears in the text near the point where a ce:float-anchor, pointing to the textbox, is placed.

The name of the textbox, e.g. “Box II”, is contained in the subelement ce:label. The ce:caption contains one or more paragraphs, ce:simple-para, of descriptive text. There can be multiple captions, for different languages and/or roles; each caption must have a different role or language.

Optional subelements ce:alt-text can be used to capture alternative descriptions of the textbox. Possible values for the role attribute are short for a short description (30 words or less) and long for a long description. Different alternative texts must have a different role.

The optional subelement ce:source is used to describe the source of the figure. The optional subelement ce:copyright can be used if the copyright of the textbox differs from the copyright of the document in which it is embedded.

The optional ce:keywords subelements are used to capture keywords for the textbox. They can be different from the keywords of the item. Normally these are not rendered but are used to improve searching and annotation. The same constraints as for the item keywords apply (e.g., allowed class values, nesting).

An optional ce:legend can contain a legend for the textbox.

A ce:textbox has an id attribute, so that it can be (but does not have to be) referred to using ce:cross-ref or ce:cross-refs (or from a foreign document). A floating textbox must have exactly one ce:float-anchor referring to it. (With one exception, see the description of ce:float-anchor.)

The structure of a textbox is an optional head (ce:textbox-head), a body (ce:textbox-body) and an optional tail (ce:textbox-tail). Simple textboxes will typically only have a body, but more elaborate textboxes with their own author names and bibliographic references exist also. Since the variety in textboxes is large, it contains many optional subelements.

The head, ce:textbox-head, begins with a titles sequence containing a title, ce:title and a subtitle, ce:subtitle, followed by possible combinations of titles and subtitles in an alternative language (ce:alt-title, ce:alt-subtitle). A sequence of author groups, ce:author-group, and an introductory section, ce:intro, complete the head.

The body of a textbox may contain paragraphs and sections within a ce:sections container and an acknowledgment (ce:acknowledgment), and ends with ce:appendices.

The tail of a textbox may contain a bibliography (ce:bibliography, a further-reading section (ce:further-reading), a glossary (ce:glossary), and biographies of the authors (ce:biography).

Note that an elaborate textbox itself resembles a small article. It may well contain its own figures and tables.

The following values for ce:textbox's attribute role are defined:

- alt0, alt1, ..., alt25 are "anonymous" roles which are defined externally.
- altm0, altm1, ..., altm25 are "anonymous" roles meant for textboxes that appear in the margin.
- cme is used to mark a textbox with CME (Continuing Medical Education) information enabling special rendering.
- e-extra is used to mark a textbox as "electronic extra".
- pull-quote, for capturing pull quotes, i.e., sentences or phrases excerpted from the main text, often set in large type, used to break up running text and draw the reader's attention.

Furthermore, the following semantic values are defined for use in books:

- alert
- case-study
- coding
- definition
- drugs
- ethics
- evidence-based
- exercise
- focus
- guideline
- health-care
- key-term
- medical-topic
- note
- pearl
- practice
- procedure
- q-and-a
- review
- safety
- skill
- teaching
- technical
- tip
- web

Version history

Prior to DTD 5.0, elaborate textboxes were separate SGML instances, declared as SUBDOC in the main file. Such textboxes were called linked textboxes..

As from CEP 1.1.2, the caption is repeatable. Parameter entity %copyright; was introduced as well. Subelement ce:source was introduced in CEP 1.1.3, while ce:keywords

was added in CEP 1.2.0. In CEP 1.4.0 the subelement ce:alt-text was introduced. In CEP 1.6.0 the subelement ce:legend was added.

Light reading

No floating textboxes may be used in CONTENTS-ENTRY-ONLY, HEAD-ONLY or HEAD-AND-TAIL files.

See also

ce:display, ce:float-anchor, ce:floats, ce:textbox-body, ce:textbox-head, ce:textbox-tail

ce:textbox-body

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:textbox-body       ( ce:sections, ce:acknowledgment?,
                                   ce:appendices? )>
```

Description

The element ce:textbox-body contains the body of a textbox, with a number of sections, an acknowledgment and appendices.

Usage

See ce:textbox.

ce:textbox-head

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:textbox-head       ( ce:title?, ce:subtitle?, ( ce:alt-
                                   title, ce:alt-subtitle? )*, ce:author-
                                   group*, ce:intro? )>
```

Description

The element ce:textbox-head contains the head of a textbox. It may contain titles and author names, and an introduction.

Usage

See ce:textbox.

ce:textbox-tail

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:textbox-tail       ( ce:bibliography?, ce:further-reading?,
                                   ce:glossary?, ce:biography* )>
```

Description

The element ce:textbox-tail contains the tail of a textbox, with a bibliography, a further-reading section, a glossary and biographies.

Usage

See ce:textbox.

Version history

Optional subelements ce:glossary and ce:biography were introduced in CEP 1.1.1.

ce:textfn

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:textfn            ( %textfn.data; )*>
<!ATTLIST  ce:textfn
           id                   ID                #IMPLIED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:textfn            ( %textfn.data; )*>
<!ATTLIST  ce:textfn
           id                   ID                #IMPLIED>
```

Description

The element ce:textfn is a container element for text.

Usage

Various elements contain ce:textfn as a general container for text with content model %textfn.data;. The exact content of %textfn.data; is described in the section on Parameter entities (p. 187).

Version history

In CEP 1.5.0 entity %math; was added to %textfn.data;.

See also

ce:text, ce:textref

ce:textref

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  ce:textref          ( %textref.data; )*>
<!ATTLIST  ce:textref
           id                  ID               #IMPLIED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:textref          ( %textref.data; )*>
<!ATTLIST  ce:textref
           id                  ID               #IMPLIED>
```

Description

The element ce:textref is a container element for text.

Usage

Various elements contain ce:textref as a general container for text with content model %textref.data;. The exact content of %textref.data; is described in the section on Parameter entities (p. 187).

Version history

In CEP 1.5.0 entity %math; was added to %textref.data;.

See also

ce:text, ce:textfn

ce:title

Declaration

Model (CEPs 1.1.0–1.1.6)

```
<!ELEMENT  ce:title              ( %textfn.data; )*>
```

Model (CEPs 1.2.0, 1.4.0)

```
<!ELEMENT  ce:title              ( %textfn.data; )*>
<!ATTLIST  ce:title
           id                    ID                #IMPLIED>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  ce:title              ( %textfn.data; )*>
<!ATTLIST  ce:title
           id                    ID                #IMPLIED>
```

Description

The element ce:title contains the title of an article, chapter, or other item.

Usage

The element ce:title is used to capture the title of an item, e.g. a journal article or book chapter.

XML

```
<ce:title id="t1">Tag by Tag</ce:title>
```

Version history

In DTDs prior to DTD 5.0, the element atl fulfilled the function of both ce:title and ce:alt-title; moreover, it contained the subtitle within it. Attribute id was added in CEP 1.2.0. In CEP 1.5.0 entity %math; was added to %textfn.data;.

See also

ce:alt-title, ce:alt-subtitle, ce:subtitle

ce:underline

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:underline          ( %richstring.data; )*>
```

Description

The element ce:underline is related to the font changing elements (p. 184). It is used to obtain underlined text.

Usage

To obtain underlined text, use ce:underline.

XML

```
<ce:underline>This text is underlined</ce:underline>.
```

Presentation

This text is underlined.

See also

For more information see the section on text effects (p. 184). See also ce:bold, ce:cross-out, ce:italic, ce:monospace, ce:sans-serif.

ce:vsp

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  ce:vsp              EMPTY>
<!ATTLIST  ce:vsp
           sp                  NMTOKEN          "1.0">
```

Description

The element ce:vsp is used to create explicit vertical space.

Usage

If the need arises to indicate explicit vertical spacing, ce:vsp can be used. It has one attribute, sp, which determines the amount of vertical space is to be inserted, measured as a multiple of the baseline-to-baseline distance, default 1.0. It is a non-negative floating number.

If <ce:vsp sp="1.5"> occurs in the running text, this should be displayed as follows: move down by 1.5 “baseline skip” and do not start a new line. However, if it is immediately followed by a <ce:para>, <ce:note-para> or <ce:simple-para> tag, the next paragraph is not indented.

XML

```
Text1<ce:vsp/>Text2
```

Presentation

Text1
Text2

XML

```
Text1<ce:vsp sp="2.0"/><ce:para id="p2">Text2
```

Presentation

Text1

Text2

XML

```
Text1<ce:para id="p3"><ce:vsp sp="2.0"/>Text2
```

Presentation

Text1

Text2

It is not allowed to use ce:vsp for creating built-up structures.

Chapter 9
Structured affiliations

This chapter contains a listing of the DTD fragment for structured affiliations. This fragment also belongs to the common element pool (CEP 1.2), but its elements have been assigned to a separate namespace, `http://www.elsevier.com/xml/common/struct-aff/dtd`.

sa:affiliation

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  sa:affiliation        ( sa:organization*, sa:address-line*,
                                   sa:city?, sa:state?, sa:postal-code?,
                                   sa:country? )>
<!ATTLIST  sa:affiliation
           xmlns:sa              CDATA             #FIXED %ESSA.xmlns;>
```

The main element is `sa:affiliation`. It contains the affiliation of an author or collaboration (`ce:affiliation`/`ce:textfn`), broken down into parts. It is also used to structure (part of) the correspondence information. The element may not have empty content even though all its subelements are optional.

sa:organization

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  sa:organization       ( %richstring.data; )*>
```

`sa:organization` contains the name of the organization that is part of the affiliation. It can appear multiple times.

sa:address-line

Model (CEPs 1.2.0, 1.4.0)

```
<!ELEMENT  sa:address-line       ( %text.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  sa:address-line       ( %text.data; )*>
```

The `sa:address-line` elements contain the address parts of an affiliation, a city district, a street, P.O. Box, etc.

sa:city

Model (CEPs 1.2.0, 1.4.0)

```
<!ELEMENT  sa:city               ( %text.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  sa:city              ( %text.data; )*>
```

Within the affiliation, the city name is contained within sa:city. The word “city” is used here in a “postal” sense, in that it can also mean a village, an air force base, a ship, etc.

sa:state

Model (CEPs 1.2.0, 1.4.0)

```
<!ELEMENT  sa:state             ( %text.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  sa:state             ( %text.data; )*>
```

sa:state contains the state name within an affiliation. This can be an American state, but also a Canadian province, an English county, etc.

sa:postal-code

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  sa:postal-code       ( %string.data; )*>
```

sa:postal-code contains the postal code of the address. To find out where the postal code must be displayed with respect to city and/or country other sources must be consulted.

sa:country

Model (CEPs 1.2.0, 1.4.0)

```
<!ELEMENT  sa:country           ( %text.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  sa:country           ( %text.data; )*>
```

Within the affiliation, the country name is contained within sa:country.

XML

```
<ce:affiliation id="aff1">
  <ce:textfn>University of Exeter Business School,
    Streatham Court, Streatham Campus, University of
    Exeter, Exeter EX4 4ST, Devon, UK</ce:textfn>
  <sa:affiliation>
    <sa:organization>University of Exeter Business
      School</sa:organization>
    <sa:address-line>Streatham Court</sa:address-line>
    <sa:address-line>Streatham Campus</sa:address-line>
    <sa:address-line>University of Exeter</sa:address-line>
    <sa:city>Exeter</sa:city>
    <sa:state>Devon</sa:state>
    <sa:postal-code>EX4 4ST</sa:postal-code>
    <sa:country>UK</sa:country>
  </sa:affiliation>
</ce:affiliation>
```

XML

```
      <ce:affiliation id="aff2">
        <ce:textfn>NCTS (Taipei Office), 6th Floor, Astronomy
          Mathematics Building, No. 1, Roosevelt Rd. Sec. 4,
          Taipei, 10617, Taiwan</ce:textfn>
        <sa:affiliation>
          <sa:organization>NCTS (Taipei Office)</sa:organization>
          <sa:address-line>6th Floor</sa:address-line>
          <sa:address-line>Astronomy Mathematics
            Building, No. 1</sa:address-line>
          <sa:address-line>Roosevelt Rd. Sec. 4</sa:address-line>
          <sa:city>Taipei</sa:city>
          <sa:postal-code>10617</sa:postal-code>
          <sa:country>Taiwan</sa:country>
        </sa:affiliation>
      </ce:affiliation>
```

XML

```
      <ce:affiliation id="aff3">
        <ce:textfn>Dip. di Matematica "F. Enriques" - Università
          degli Studi di Milano, Via Saldini 50 - 20133 Milano,
          Italy</ce:textfn>
        <sa:affiliation>
          <sa:organization>Dip. di Matematica "F. Enriques"</sa:organization>
          <sa:organization>Università degli Studi
            di Milano</sa:organization>
          <sa:address-line>Via Saldini 50</sa:address-line>
          <sa:city>Milano</sa:city>
          <sa:postal-code>20133</sa:postal-code>
          <sa:country>Italy</sa:country>
        </sa:affiliation>
      </ce:affiliation>
```

Version history

In CEP 1.5.0 entity %math; was added to %text.data;.

Chapter 10

Structured bibliographic references

This chapter contains an alphabetic listing of the DTD fragment for structured bibliographic references. This fragment also belongs to the common element pool (CEP 1.2), but its elements have been assigned to a separate namespace. This makes it possible, for instance, that the structure of an author name in a bibliographic reference differs from that in the head of an article: The elements `ce:author` and `sb:author` both exist.

The first section of this chapter contains extensive examples of various types of references and their XML coding. It is followed by detailed descriptions of each of the elements.

Bibliographic references — Examples

The fragment of the DTD related to bibliographic references is quite extensive. In this section, structured references are illustrated in the form of examples. The rendering given in the examples does not necessarily follow one of the standard presentations for bibliographic references.

The top-level element for a structured bibliographic reference is `sb:reference`. It uses concepts of "contributions" that appear in one or more "hosts". Four types of hosts exist: issue, book, edited book and electronic host.

Examples of structured references

The examples in this section are ordered by the type of host.

1. `sb:issue` as `sb:host`
2. `sb:book` as `sb:host`
3. `sb:edited-book` as `sb:host`
4. `sb:e-host` as `sb:host`, and other hosts on the web

Some examples demonstrate additional features.

- Non-English journal article, with an English `sb:translated-title` (Example 4)
- Book originally published in another language, with a translator (Example 7)
- Multiple hosts (Example 9, Example 14, Example 16)
- `sb:book-series` element (Example 12, Example 13)
- A book series published over a period of several years (Example 13)
- Publications on the web other than preprints (Example 15)
- `sb:comment` element (Example 3, Example 7, Example 16)
- `ce:note` element (Example 16)
- A data citation (Example 17)

1. *sb:issue* as *sb:host*

An `sb:issue` contains at least an `sb:series` and an `sb:date`. The `sb:series` contains an `sb:title` or an `sb:translated-title` and optionally an `sb:volume-nr`.

1. Simple journal article, two authors et al., paginated by issue.

Presentation

[1] A. Paivio, L.J. Becker, et al., Comparisons through the mind's eye, Cognition 37 (2) (1975) 635–647.

XML

```
<ce:bib-reference id="ref1">
<ce:label>[1]</ce:label>
<sb:reference id="sbr01">
  <sb:contribution>
    <sb:authors>
      <sb:author>
        <ce:given-name>A.</ce:given-name>
        <ce:surname>Paivio</ce:surname>
      </sb:author>
      <sb:author>
        <ce:given-name>L.J.</ce:given-name>
```

```
        <ce:surname>Becker</ce:surname>
      </sb:author>
      <sb:et-al/>
    </sb:authors>
    <sb:title>
      <sb:maintitle>Comparisons through
        the mind's eye</sb:maintitle>
    </sb:title>
  </sb:contribution>
  <sb:host>
    <sb:issue>
      <sb:series>
        <sb:title>
          <sb:maintitle>Cognition</sb:maintitle>
        </sb:title>
        <sb:volume-nr>37</sb:volume-nr>
      </sb:series>
      <sb:issue-nr>2</sb:issue-nr>
      <sb:date>1975</sb:date>
    </sb:issue>
    <sb:pages>
      <sb:first-page>635</sb:first-page>
      <sb:last-page>647</sb:last-page>
    </sb:pages>
   </sb:host>
</sb:reference>
</ce:bib-reference>
```

2. An article in a journal supplement, only first page given. The fact that it is a supplement can in this example be seen from the `sb:issue-nr`. Otherwise, there is no difference with an article in a normal issue.

Presentation

[2] S. Koczkas, G. Holmberg, L. Wedin, A pilot study of the effect of . . . , Acta Psychiatrica Scandinavica 63 (Suppl. 290) (1981) 328.

XML

```
<ce:bib-reference id="ref2">
<ce:label>[2]</ce:label>
<sb:reference id="sbr02">
  <sb:contribution>
    <sb:authors>
      <sb:author>
        <ce:given-name>S.</ce:given-name>
        <ce:surname>Koczkas</ce:surname>
      </sb:author>
      <sb:author>
        <ce:given-name>G.</ce:given-name>
        <ce:surname>Holmberg</ce:surname>
      </sb:author>
      <sb:author>
        <ce:given-name>L.</ce:given-name>
        <ce:surname>Wedin</ce:surname>
      </sb:author>
    </sb:authors>
```

```
      <sb:title>
        <sb:maintitle>A pilot study of the effect of ...</sb:maintitle>
      </sb:title>
    </sb:contribution>
    <sb:host>
      <sb:issue>
        <sb:series>
          <sb:title>
            <sb:maintitle>Acta Psychiatrica Scandinavica</sb:maintitle>
          </sb:title>
          <sb:volume-nr>63</sb:volume-nr>
        </sb:series>
        <sb:issue-nr>Suppl. 290</sb:issue-nr>
        <sb:date>1981</sb:date>
      </sb:issue>
      <sb:pages><sb:first-page>328</sb:first-page></sb:pages>
    </sb:host>
  </sb:reference>
  </ce:bib-reference>
```

3. Entire issue of a journal. In addition to the sb:title in the sb:series (the journal title), the issue of this example has a title and (guest) editors of its own. The additional text '(special issue)' is tagged as a comment.

This example is typical for special issues.

Presentation

[3] R. Glaser, L. Bond (Eds.), Testing: concepts and research, American Psychologist 36 (10–12) (1981) (special issue).

XML

```
<ce:bib-reference id="ref3">
<ce:label>[3]</ce:label>
<sb:reference id="sbr03">
  <sb:host>
    <sb:issue>
      <sb:editors>
        <sb:editor>
          <ce:given-name>R.</ce:given-name>
          <ce:surname>Glaser</ce:surname>
        </sb:editor>
        <sb:editor>
          <ce:given-name>L.</ce:given-name>
          <ce:surname>Bond</ce:surname>
        </sb:editor>
      </sb:editors>
      <sb:title>
        <sb:maintitle>Testing: concepts and research</sb:maintitle>
      </sb:title>
      <sb:series>
        <sb:title>
          <sb:maintitle>American Psychologist</sb:maintitle>
        </sb:title>
        <sb:volume-nr>36</sb:volume-nr>
      </sb:series>
      <sb:issue-nr>10&ndash;12</sb:issue-nr>
```

```
      <sb:date>1981</sb:date>
    </sb:issue>
  </sb:host>
  <sb:comment>(special issue)</sb:comment>
</sb:reference>
</ce:bib-reference>
```

4. Non-English journal article, with an English sb:translated-title. In this example, the language of the article is known and is specified in the xml:lang attribute of the sb:contribution.

Presentation

[4] E.M.H. Assink, N. Verloop, Het aanleren van deel–geheel relaties (Teaching part–whole relations), Pedagogische Studiën 54 (1977) 130–142.

XML

```
<ce:bib-reference id="ref4">
<ce:label>[4]</ce:label>
<sb:reference id="sbr04">
  <sb:contribution lang-type="iso" xml:lang="nl">
    <sb:authors>
      <sb:author>
        <ce:given-name>E.M.H.</ce:given-name>
        <ce:surname>Assink</ce:surname>
      </sb:author>
      <sb:author>
        <ce:given-name>N.</ce:given-name>
        <ce:surname>Verloop</ce:surname>
      </sb:author>
    </sb:authors>
    <sb:title>
      <sb:maintitle>Het aanleren
        van deel&ndash;geheel relaties</sb:maintitle>
    </sb:title>
    <sb:translated-title>
      <sb:maintitle>Teaching part&ndash;whole
        relations</sb:maintitle>
    </sb:translated-title>
  </sb:contribution>
  <sb:host>
    <sb:issue>
      <sb:series>
        <sb:title>
          <sb:maintitle>Pedagogische Studiën</sb:maintitle>
        </sb:title>
        <sb:volume-nr>54</sb:volume-nr>
      </sb:series>
      <sb:date>1977</sb:date>
    </sb:issue>
    <sb:pages>
      <sb:first-page>130</sb:first-page>
      <sb:last-page>142</sb:last-page>
    </sb:pages>
  </sb:host>
</sb:reference>
```

```
</ce:bib-reference>
```

2. *sb:book* as *sb:host*

An sb:book element contains at least an sb:date. The author names and the title can in virtually all cases be found in the sb:contribution. Only when no author is given, is the sb:title element in the sb:host used.

5. Monograph. In this example, the sb:book element contains, in addition to the sb:date, the sb:edition and the sb:publisher.

Presentation

[5] W. Strunk Jr., E.B. White, The elements of style, 3rd ed., Macmillan, New York, 1979.

XML

```
<ce:bib-reference id="ref5">
<ce:label>[5]</ce:label>
<sb:reference id="sbr05">
  <sb:contribution>
    <sb:authors>
      <sb:author>
        <ce:given-name>W.</ce:given-name>
        <ce:surname>Strunk</ce:surname>
        <ce:suffix>Jr.</ce:suffix>
      </sb:author>
      <sb:author>
        <ce:given-name>E.B.</ce:given-name>
        <ce:surname>White</ce:surname>
      </sb:author>
    </sb:authors>
    <sb:title>
      <sb:maintitle>The elements of style</sb:maintitle>
    </sb:title>
  </sb:contribution>
  <sb:host>
    <sb:book>
      <sb:edition>3rd ed.</sb:edition><sb:date>1979</sb:date>
      <sb:publisher>
        <sb:name>MacMillan</sb:name>
        <sb:location>New York</sb:location>
      </sb:publisher>
    </sb:book>
  </sb:host>
</sb:reference>
</ce:bib-reference>
```

6. Book without authors. The title is in the sb:host.

Presentation

[6] College bound seniors, College Board Publications, Princeton, NJ, 1979.

XML

```
<ce:bib-reference id="ref6">
<ce:label>[6]</ce:label>
<sb:reference id="sbr06">
  <sb:host>
    <sb:book>
      <sb:title>
```

```
        <sb:maintitle>College bound seniors</sb:maintitle>
      </sb:title>
      <sb:date>1979</sb:date>
      <sb:publisher>
        <sb:name>College Board Publications</sb:name>
        <sb:location>Princeton, NJ</sb:location>
      </sb:publisher>
    </sb:book>
  </sb:host>
</sb:reference>
</ce:bib-reference>
```

7. Book originally published in another language, with a translator.[3] In this example the original title and the original language are not given.

Presentation

[7] A.R. Luria, The mind of a mnemonist (L. Solotarof, Trans.) Avon books, New York, 1969 (Original work published 1965)

XML

```
<ce:bib-reference id="ref7">
<ce:label>[7]</ce:label>
<sb:reference id="sbr07">
  <sb:contribution>
    <sb:authors>
      <sb:author>
        <ce:given-name>A.R.</ce:given-name>
        <ce:surname>Luria</ce:surname>
      </sb:author>
    </sb:authors>
    <sb:title>
      <sb:maintitle>The mind of a mnemonist</sb:maintitle>
    </sb:title>
  </sb:contribution>
  <sb:comment>(L. Solotarof, Trans.)</sb:comment>
  <sb:host>
    <sb:book>
      <sb:date>1969</sb:date>
      <sb:publisher>
        <sb:name>Avon books</sb:name>
        <sb:location>New York</sb:location>
      </sb:publisher>
    </sb:book>
  </sb:host>
  <sb:comment>(Original work published 1965)</sb:comment>
</sb:reference>
</ce:bib-reference>
```

3. *sb:edited-book* as *sb:host*

An sb:edited-book contains at least an sb:date. When the sb:host is an sb:edited-book, the sb:contribution usually is an article or a chapter in that book. In that case there is an sb:title in both the sb:contribution and the sb:host, much like an article in an sb:issue.

3. There is no separate element for translator.

8. Article or chapter in edited book.

Presentation

[8] A.S. Gurman, D.P. Kniskern, Family therapy outcome research: knowns and unknowns, in: A.S. Gurman, D.P. Kniskern (Eds.), Handbook of family therapy, Brunner/Mazel, New York, 1981, pp. 742–775.

XML

```
<ce:bib-reference id="ref8">
<ce:label>[8]</ce:label>
<sb:reference id="sbr08">
  <sb:contribution>
    <sb:authors>
      <sb:author>
        <ce:given-name>A.S.</ce:given-name>
        <ce:surname>Gurman</ce:surname>
      </sb:author>
      <sb:author>
        <ce:given-name>D.P.</ce:given-name>
        <ce:surname>Kniskern</ce:surname>
      </sb:author>
    </sb:authors>
    <sb:title>
      <sb:maintitle>Family therapy outcome research:
        knowns and unknowns</sb:maintitle>
    </sb:title>
  </sb:contribution>
  <sb:host>
    <sb:edited-book>
      <sb:editors>
        <sb:editor>
          <ce:given-name>A.S.</ce:given-name>
          <ce:surname>Gurman</ce:surname>
        </sb:editor>
        <sb:editor>
          <ce:given-name>D.P.</ce:given-name>
          <ce:surname>Kniskern</ce:surname>
        </sb:editor>
      </sb:editors>
      <sb:title>
        <sb:maintitle>Handbook of family therapy</sb:maintitle>
      </sb:title>
      <sb:date>1981</sb:date>
      <sb:publisher>
        <sb:name>Brunner/Mazel</sb:name>
        <sb:location>New York</sb:location>
      </sb:publisher>
    </sb:edited-book>
    <sb:pages>
      <sb:first-page>742</sb:first-page>
      <sb:last-page>775</sb:last-page>
    </sb:pages>
  </sb:host>
</sb:reference>
</ce:bib-reference>
```

9. Article in edited book, reprinted from another source.

Presentation

[9] C.E. Sluzki, J. Beavin, Symmetry and complementarity, in: P. Watzlawick, J.H. Weakland (Eds.), The interactional view, Norton, New York, 1977, pp. 71–87. Reprinted from: Acta Psiquiatrica y Psicologica de America Latina 11 (1965) 321–330.

XML

```
<ce:bib-reference id="ref9">
<ce:label>[9]</ce:label>
<sb:reference id="sbr09">
  <sb:contribution>
    <sb:authors>
      <sb:author>
        <ce:given-name>C.E.</ce:given-name>
        <ce:surname>Sluzki</ce:surname>
      </sb:author>
      <sb:author>
        <ce:given-name>J.</ce:given-name>
        <ce:surname>Beavin</ce:surname>
      </sb:author>
    </sb:authors>
    <sb:title>
      <sb:maintitle>Symmetry and complementarity</sb:maintitle>
    </sb:title>
  </sb:contribution>
  <sb:host>
    <sb:edited-book>
      <sb:editors>
        <sb:editor>
          <ce:given-name>P.</ce:given-name>
          <ce:surname>Watzlawick</ce:surname>
        </sb:editor>
        <sb:editor>
          <ce:given-name>J.H.</ce:given-name>
          <ce:surname>Weakland</ce:surname>
        </sb:editor>
      </sb:editors>
      <sb:title>
        <sb:maintitle>The interactional view</sb:maintitle>
      </sb:title>
      <sb:date>1977</sb:date>
      <sb:publisher>
        <sb:name>Norton</sb:name>
        <sb:location>New York</sb:location>
      </sb:publisher>
    </sb:edited-book>
    <sb:pages>
      <sb:first-page>71</sb:first-page>
      <sb:last-page>87</sb:last-page>
    </sb:pages>
  </sb:host>
  <sb:comment>Reprinted from:</sb:comment>
  <sb:host>
    <sb:issue>
```

```
        <sb:series>
          <sb:title>
            <sb:maintitle>Acta Psiquiatrica y Psicologica
              de America Latina</sb:maintitle>
          </sb:title>
          <sb:volume-nr>11<sb:volume-nr>
        </sb:series>
        <sb:date>1965</sb:date>
      </sb:issue>
      <sb:pages>
        <sb:first-page>321</sb:first-page>
        <sb:last-page>330</sb:last-page>
      </sb:pages>
    </sb:host>
  </sb:reference>
  </ce:bib-reference>
```

10. Article in proceedings published as a book. A proceedings volume is an `sb:edited-book`. It may have conference info in the `sb:conference` element.

Presentation

[10] T.E. Chaddock, Gastric emptying of a nutritionally balanced diet, in: E.E. Daniel (Ed.), Proceedings of the Fourth International Symposium on Gastrointestinal Motility, ISGM4, 4–8 September 1973, Seattle, WA, Mitchell Press, Vancouver, British Columbia, Canada, 1974, pp. 83–92.

XML

```
<ce:bib-reference id="ref10">
<ce:label>[10]</ce:label>
<sb:reference id="sbr10">
  <sb:contribution>
    <sb:authors>
      <sb:author>
        <ce:given-name>T.E.</ce:given-name>
        <ce:surname>Chaddock</ce:surname>
      </sb:author>
    </sb:authors>
    <sb:title>
      <sb:maintitle>Gastric emptying of a nutritionally
        balanced diet</sb:maintitle>
    </sb:title>
  </sb:contribution>
  <sb:host>
    <sb:edited-book>
      <sb:editors>
        <sb:editor>
          <ce:given-name>E.E.</ce:given-name>
          <ce:surname>Daniel</ce:surname>
        </sb:editor>
      </sb:editors>
      <sb:title>
        <sb:maintitle>Proceedings of the Fourth International
          Symposium on Gastrointestinal Motility</sb:maintitle>
      </sb:title>
      <sb:conference>ISGM4, 4&ndash;8 September 1973,
        Seattle, WA</sb:conference>
```

```
        <sb:date>1974</sb:date>
        <sb:publisher>
          <sb:name>Mitchell Press</sb:name>
          <sb:location>Vancouver, British Columbia,
            Canada</sb:location>
        </sb:publisher>
      </sb:edited-book>
      <sb:pages>
        <sb:first-page>83</sb:first-page>
        <sb:last-page>92</sb:last-page>
      </sb:pages>
    </sb:host>
  </sb:reference>
  </ce:bib-reference>
```

11. Edited book. In this example the whole edited book is cited and therefore the element `sb:contribution` is absent.

Presentation

[11] S. Letheridge, C.R. Cannon (Eds.), Bilingual education, Praeger, New York, 1980.

XML

```
  <ce:bib-reference id="ref11">
  <ce:label>[11]</ce:label>
  <sb:reference id="sbr11">
    <sb:host>
      <sb:edited-book>
        <sb:editors>
          <sb:editor>
            <ce:given-name>S.</ce:given-name>
            <ce:surname>Letheridge</ce:surname>
          </sb:editor>
          <sb:editor>
            <ce:given-name>C.R.</ce:given-name>
            <ce:surname>Cannon</ce:surname>
          </sb:editor>
        </sb:editors>
        <sb:title>
          <sb:maintitle>Bilingual education</sb:maintitle>
        </sb:title>
        <sb:date>1980</sb:date>
        <sb:publisher>
          <sb:name>Praeger</sb:name>
          <sb:location>New York</sb:location>
        </sb:publisher>
      </sb:edited-book>
    </sb:host>
  </sb:reference>
  </ce:bib-reference>
```

12. A volume in a multi-volume edited work. The difference with a single-volume edited work, is the presence of an `sb:book-series` element. The `sb:book-series` contains an `sb:series` element and optionally the editors of the series. The `sb:series` element contains the series title and optionally the `sb:volume-nr`. The volume may have its own editors and title, as shown in this example.

Presentation

[12] J.G. Wilson (Ed.), Basic teratology, in: J.G. Wilson, F.C. Fraser (Eds.), Handbook of teratology, vol. 1, Plenum Press, New York, 1977–1978.

XML

```
<ce:bib-reference id="ref12">
<ce:label>[12]</ce:label>
<sb:reference id="sbr12">
  <sb:host>
    <sb:edited-book>
      <sb:editors>
        <sb:editor>
          <ce:given-name>J.G.</ce:given-name>
          <ce:surname>Wilson</ce:surname>
        </sb:editor>
      </sb:editors>
      <sb:title>
        <sb:maintitle>Basic teratology</sb:maintitle>
      </sb:title>
      <sb:book-series>
        <sb:editors>
          <sb:editor>
            <ce:given-name>J.G.</ce:given-name>
            <ce:surname>Wilson</ce:surname>
          </sb:editor>
          <sb:editor>
            <ce:given-name>F.C.</ce:given-name>
            <ce:surname>Fraser</ce:surname>
          </sb:editor>
        </sb:editors>
        <sb:series>
          <sb:title>
            <sb:maintitle>Handbook of teratology</sb:maintitle>
          </sb:title>
          <sb:volume-nr>Vol. 1</sb:volume-nr>
        </sb:series>
      </sb:book-series>
      <sb:date>1977</sb:date>
      <sb:publisher>
        <sb:name>Plenum Press</sb:name>
        <sb:location>New York</sb:location>
      </sb:publisher>
    </sb:edited-book>
  </sb:host>
</sb:reference>
</ce:bib-reference>
```

13. A multi-volume edited work, publication over more than one year. In this example the whole series is cited; therefore the `sb:contribution` element is absent, and the `sb:edited-book` contains only elements that belong to the series: `sb:book-series`, `sb:date`s and an `sb:publisher`. The fact that the series was published over a period of several years, is expressed by the presence of multiple `sb:date`s.

Presentation

[13] J.G. Wilson, F.C. Fraser (Eds.), Handbook of teratology, Vols. 1–4, Plenum Press, New

York, 1977–1978.

XML

```
<ce:bib-reference id="ref13">
<ce:label>[13]</ce:label>
<sb:reference id="sbr13">
  <sb:host>
    <sb:edited-book>
      <sb:book-series>
        <sb:editors>
          <sb:editor>
            <ce:given-name>J.G.</ce:given-name>
            <ce:surname>Wilson</ce:surname>
          </sb:editor>
          <sb:editor>
            <ce:given-name>F.C.</ce:given-name>
            <ce:surname>Fraser</ce:surname>
          </sb:editor>
        </sb:editors>
        <sb:series>
          <sb:title>
            <sb:maintitle>Handbook of teratology</sb:maintitle>
          </sb:title>
          <sb:volume-nr>Vols. 1&ndash;4</sb:volume-nr>
        </sb:series>
      </sb:book-series>
      <sb:date>1977</sb:date>
      <sb:date>1978</sb:date>
      <sb:publisher>
        <sb:name>Plenum Press</sb:name>
        <sb:location>New York</sb:location>
      </sb:publisher>
    <sb:edited-book>
  </sb:host>
</sb:reference>
</ce:bib-reference>
```

4. *sb:e-host* as *sb:host*, and other hosts on the web

An sb:e-host cannot at the same time be an sb:issue, sb:book or sb:edited-book. Therefore it is mainly used for articles on the web that do not belong to any of the other types of host, mostly for preprints. However, one of the examples below shows how a book can have an sb:e-host as one of its hosts.

sb:e-host is also used when the bibliographic reference is a data citation, see the last example.

14. An electronic host, sb:e-host, consists of a ce:inter-ref element and an optional sb:date. Formally, the ce:inter-ref is optional too, but in practice it is not.

In this example the sb:e-host contains the preprint, and the sb:issue contains the printed article. It also often occurs that the sb:e-host is the only host.

Presentation

[14] F. Yu, X.-S. Wu, Phys. Rev. Lett. 68 (1992) 2996. hep-th/9112009.

XML

```
<ce:bib-reference id="ref14">
<ce:label>[14]</ce:label>
<sb:reference id="sbr14">
  <sb:contribution>
    <sb:authors>
      <sb:author>
        <ce:given-name>F.</ce:given-name>
        <ce:surname>Yu</ce:surname>
      </sb:author>
      <sb:author>
        <ce:given-name>X.-S.</ce:given-name>
        <ce:surname>Wu</ce:surname>
      </sb:author>
    </sb:authors>
  </sb:contribution>
  <sb:host>
    <sb:issue>
      <sb:series>
        <sb:title>
          <sb:maintitle>Phys. Rev. Lett.</sb:maintitle>
        </sb:title>
        <sb:volume-nr>68</sb:volume-nr>
      </sb:series>
      <sb:date>1992</sb:date>
    </sb:issue>
    <sb:pages><sb:first-page>2996</sb:first-page></sb:pages>
  </sb:host>
  <sb:host>
    <sb:e-host>
      <ce:inter-ref id="interref37"
        xlink:role="http://www.elsevier.com/xml/linking-roles/preprint"
        xlink:href="arxiv:/hep-th/9112009">hep-th/9112009</ce:inter-ref>
    </sb:e-host>
  </sb:host>
</sb:reference>
</ce:bib-reference>
```

15. Article in proceedings, published on the web. In this example the host is a proceedings, hence an `sb:edited-book`, even though it is published solely on the web (or that is the only publication given). The `sb:title` of the `sb:contribution` contains a `ce:inter-ref` element with a link leading to a file for this specific article. In addition, the URL of the proceedings is tagged as an `ce:inter-ref` element in the `sb:title` of the `sb:host`.

Presentation

[15] F. Douglis and Th. Ball, Tracking and viewing changes on the web, in: Proc. 1996 USENIX Technical Conference, January 1996.

XML

```
<ce:bib-reference id="ref15">
<ce:label>[15]</ce:label>
<sb:reference id="sbr15">
  <sb:contribution>
    <sb:authors>
      <sb:author>
        <ce:given-name>F.</ce:given-name>
```

```
        <ce:surname>Douglis</ce:surname>
      </sb:author>
      <sb:author>
        <ce:given-name>Th.</ce:given-name>
        <ce:surname>Ball</ce:surname>
      </sb:author>
    </sb:authors>
    <sb:title>
      <sb:maintitle>
        <ce:inter-ref id="interref38"
          xlink:href="http://www.research.att.com/papers/aide.ps.gz">
          Tracking and viewing changes on the web
        </ce:inter-ref>
      </sb:maintitle>
    </sb:title>
  </sb:contribution>
  <sb:host>
    <sb:edited-book>
      <sb:title>
        <sb:maintitle>
          <ce:inter-ref id="interref39"
            xlink:role="http://www.elsevier.com/xml/linking-roles/text/html"
            xlink:href="http://usenix.org/sd96.html">Proc. 1996 USENIX
              Technical Conference</ce:inter-ref>
        </sb:maintitle>
      </sb:title>
      <sb:date>January 1996</sb:date>
    </sb:edited-book>
  </sb:host>
</sb:reference>
</ce:bib-reference>
```

16. Article with maximum usage of comments: an `sb:comment` before the `sb:contribution`, an `sb:comment` before each of the `sb:host`s, and an `sb:comment` after the last `sb:host`. It also has a `ce:note`.

Presentation

> [16] See the references in H.A. Buchdahl, The Concepts of Classical Thermodynamics, first published by Cambridge University Press, Cambridge, 1966, also available electronically as: The Concepts of Classical Thermodynamics (last updated 1999).
> This reference discusses the basic concepts in a very thorough manner.
> Its literature list is a main entry point into the discipline.

XML

```
<ce:bib-reference id="ref16"><ce:label>[16]</ce:label>
<sb:reference id="sbr16">
  <sb:comment>See the references in</sb:comment>
  <sb:contribution>
    <sb:authors>
      <sb:author>
        <ce:given-name>H.A.</ce:given-name>
        <ce:surname>Buchdahl</ce:surname>
      </sb:author>
    </sb:authors>
    <sb:title>
```

```
      <sb:maintitle>The Concepts of
        Classical Thermodynamics</sb:maintitle>
    </sb:title>
  </sb:contribution>
  <sb:comment>first published by</sb:comment>
  <sb:host>
    <sb:book>
      <sb:date>1966</sb:date>
      <sb:publisher>
        <sb:name>Cambridge University Press</sb:name>
        <sb:location>Cambridge</sb:location>
      </sb:publisher>
    </sb:book>
  </sb:host>
  <sb:comment>also available electronically as:</sb:comment>
  <sb:host>
    <sb:e-host>
      <ce:inter-ref id="interref40"
          xlink:role="http://www.elsevier.com/xml/linking-roles/text/html"
          xlink:href="http://www.sciencedirect.com/books/5027.html">
        The Concepts of Classical Thermodynamics
      </ce:inter-ref>
    </sb:e-host>
  </sb:host>
  <sb:comment>(last updated 1999)</sb:comment>
  </sb:reference>
  <ce:note>
    <ce:simple-para id="sp64">This reference discusses the basic concepts
     in a very thorough manner.</ce:simple-para>
    <ce:simple-para id="sp65">Its literature list is a main entry point
      into the discipline.</ce:simple-para>
  </ce:note>
</ce:bib-reference>
```

17. A data citation. Note the use of the linking role “research-data”.

Presentation

[17] Irino, T; Tada, R (2009): Chemical and mineral compositions of sediments from ODP Site 127-797. Geological Institute, University of Tokyo. https://doi.org/10.1594/PANGAEA.726855

XML

```
<ce:bib-reference id="ref17"><ce:label>[17]</ce:label>
<sb:reference id="sbr17">
  <sb:contribution>
    <sb:authors>
      <sb:author>
        <ce:given-name>T.</ce:given-name>
        <ce:surname>Irino</ce:surname>
      </sb:author>
      <sb:author>
        <ce:given-name>R.</ce:given-name>
        <ce:surname>Tada</ce:surname>
      </sb:author>
    </sb:authors>
    <sb:title>
      <sb:maintitle>Chemical and mineral compositions of sediments from
```

```
        ODP Site 127-797</sb:maintitle>
      </sb:title>
    </sb:contribution>
    </sb:host>
      <sb:e-host>
        <sb:publisher>
          <sb:name>Geological Institute, University of Tokyo</sb:name>
        </sb:publisher>
        <ce:inter-ref id="interref1"
          xlink:role="http://www.elsevier.com/xml/linking-roles/research-data"
          xlink:href="doi:10.1594/PANGAEA.726855">
           https://doi.org/10.1594/PANGAEA.726855</ce:inter-ref>
        <sb:date>2009</sb:date>
      </sb:e-host>
    </sb:host>
  </sb:reference>
```

sb:article-number

Declaration

Model (CEPs 1.4.0–1.6.0)

```
<!ELEMENT  sb:article-number     ( %string.data; )*>
```

Description

The element sb:article-number is used to capture an “article number”.

Usage

An article number or ID that is mentioned in a reference can be captured with sb:article-number.

XML

```
<ce:bib-reference id="br0120">
  <ce:label>[12]</ce:label>
  <sb:reference id="sbr13">
    <sb:contribution>...</sb:contribution>
    <sb:host>
      <sb:issue>
        <sb:series>
          <sb:title>
            <sb:maintitle>Phys. Rev. Lett.</sb:maintitle>
          </sb:title>
          <sb:volume-nr>90</sb:volume-nr>
        </sb:series>
        <sb:date>2003</sb:date>
      </sb:issue>
      <sb:article-number>194101</sb:article-number>
    </sb:host>
  </sb:reference>
</ce:bib-reference>
```

Presentation

[12] S. Tang, J.M. Liu. Phys. Rev. Lett. 90 (2003) 194101.

Version history

This element was added in CEP 1.4.0.

See also

ce:article-number, aid

sb:author

Declaration

Model (CEPs 1.1.0–1.1.6)

```
<!ELEMENT  sb:author            ( %name; )>
```

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  sb:author            ( %name; )>
<!ATTLIST  sb:author
           orcid                CDATA            #IMPLIED>
```

Description

Within structured bibliographic references, author names are tagged using sb:author.

Usage

The element sb:author has %name; as its content model. That means that it contains a ce:surname and optionally a ce:given-name in any order, possibly followed by a ce:suffix and one or more ce:alt-names. For more details, see those elements.

Attribute orcid contains a unique identification of the author coming from a global author database: the ORCID (Open Research & Contributor ID).

XML

```
<sb:author>
  <ce:given-name>D.E.</ce:given-name>
  <ce:surname>Knuth</ce:surname>
</sb:author>
```

XML

```
<sb:author>
  <ce:surname>Liszt</ce:surname>
  <ce:given-name>Ferenc</ce:given-name>
</sb:author>
```

XML

```
<sb:author>
  <ce:surname>National Institute of Health</ce:surname>
</sb:author>
```

Version history

In CEP 1.2.0 the attribute orcid was added, while element ce:alt-name was added to parameter entity %name;.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:authors

Declaration

Model (CEPs 1.1.0–1.2.0)

```
<!ELEMENT  sb:authors          ( ( sb:collaboration | ( sb:author,
                                 sb:et-al? ) )+ )>
```

Model (CEPs 1.4.0–1.6.0)

```
<!ELEMENT  sb:authors          ( ( sb:collaboration | ( ( sb:author,
                                 sb:et-al? ) | sb:ellipsis ) )+ )>
```

Description

Within structured bibliographic references, sb:authors is a container element for the authors of the reference.

Usage

The element sb:authors consists of a non-empty sequence of collaborations (sb:collaboration) and authors (sb:author) possibly followed by an sb:et-al element. For more information, see these elements.

XML

```
<sb:authors>
  <sb:author>
    <ce:given-name>D.C.</ce:given-name>
    <ce:surname>Coleman</ce:surname>
  </sb:author>
  <sb:et-al/>
</sb:authors>
```

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472). Element sb:ellipsis was added in CEP 1.4.0.

sb:book

Declaration

Model (CEPs 1.1.0–1.1.6)

```
<!ELEMENT  sb:book              ( ( %sb.titles; )?, sb:edition?,
                                  sb:book-series?, sb:date+,
                                  sb:publisher?, sb:isbn? )>
```

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  sb:book              ( ( %sb.titles; )?, sb:edition?,
                                  sb:book-series?, sb:date+,
                                  sb:publisher?, sb:isbn? )>
<!ATTLIST  sb:book
           class                CDATA            #IMPLIED>
```

Description

Within bibliographic references, the structure of a book is captured using sb:book.

Usage

One of the four types of "hosts" is sb:book, used when structuring references to (non-edited) books.

Such simple books, or monographs, are considered as a single "contribution" occurring in the host. Consequently, the author names and the title of the work can in virtually all cases be found in the sb:contribution. The optional titles within the sb:book are used when no author is given. An average book, therefore, only contains the following subelements.

The optional subelement sb:edition contains information about the edition of the book. The date of publication of the book — or, more accurately, the host, for a book may well appear in different hosts — is captured using sb:date. A book can have more than one date. The name and place of the publisher are contained within sb:publisher. Finally, the element sb:isbn can be used to capture the ISBN number of the referenced book, if required.

XML

```
<sb:contribution>
  <sb:authors>
    <sb:author>
      <ce:given-name>B.M.</ce:given-name>
      <ce:surname>Travis</ce:surname>
    </sb:author>
    <sb:author>
      <ce:given-name>D.</ce:given-name>
      <ce:surname>Waldt</ce:surname>
    </sb:author>
  </sb:authors>
  <sb:title>
    <sb:maintitle>The SGML Implementation Guide</sb:maintitle>
    <sb:subtitle>A Blueprint for SGML Migration</sb:subtitle>
  </sb:title>
```

```
</sb:contribution>
<sb:host>
  <sb:book>
    <sb:date>1996</sb:date>
    <sb:publisher>
      <sb:name>Springer</sb:name>
      <sb:location>Berlin</sb:location>
    </sb:publisher>
  </sb:book>
</sb:host>
```

Presentation

B. Travis and D. Waldt, The SGML Implementation Guide. A Blueprint for SGML Migration (Springer, Berlin, 1996).

XML

```
<sb:host>
  <sb:book>
    <sb:title>
      <sb:maintitle>Quick Course in Microsoft<ce:sup>&reg;</ce:sup>
        Powerpoint<ce:sup>&reg;</ce:sup> 97
      </sb:maintitle>
    </sb:title>
  <sb:date>1997</sb:date>
  <sb:publisher>
    <sb:name>Online Press Inc.</sb:name>
    <sb:location>Bellevue, WA</sb:location>
  </sb:publisher>
</sb:host>
```

Presentation

Quick Course in Microsoft® Powerpoint® 97 (Online Press Inc., Bellevue, WA, 1997).

Explanation

This book has no mention of authors or editors. The title within the `sb:book` is used.

Reports, Ph.D. theses and the like often contain the same components as a book. These references should be captured with `sb:book`. To distinguish them from books and to be able to treat them differently the `class` attribute should be used with value `report`. Thus far this is the only defined value for `class`.

XML

```
<sb:contribution>
  <sb:authors>
    <sb:author>
      <ce:given-name>E.</ce:given-name>
      <ce:surname>Chabanat</ce:surname>
    </sb:author>
  </sb:authors>
  <sb:title>
    <sb:maintitle>Interactions effectives pour des conditions
      extremes d'isospin</sb:maintitle>
  </sb:title>
</sb:contribution>
<sb:comment>PhD. thesis</sb:comment>
<sb:host>
  <sb:book class="report">
    <sb:date>1995</sb:date>
```

```
      <sb:publisher>
        <sb:name>University Claude Bernard Lyon-1</sb:name>
        <sb:location>Lyon, France</sb:location>
      </sb:publisher>
    </sb:book>
  </sb:host>
```

Presentation

E. Chabanat, Interactions effectives pour des conditions extremes d'isospin, Ph.D. thesis, University Claude Bernard Lyon-1, Lyon, France, 1995.

XML

```
<sb:contribution>
  <sb:authors>
    <sb:author>
      <ce:given-name>HJ</ce:given-name>
      <ce:surname>Gough</ce:surname>
    </sb:author>
    <sb:author>
      <ce:given-name>HV</ce:given-name>
      <ce:surname>Pollard</ce:surname>
    </sb:author>
    <sb:author>
      <ce:given-name>WJ</ce:given-name>
      <ce:surname>Clenshaw</ce:surname>
    </sb:author>
  </sb:authors>
  <sb:title>
    <sb:maintitle>Some experiments on the resistance of
      metals to fatigue under combined stresses</sb:maintitle>
  </sb:title>
</sb:contribution>
<sb:host>
  <sb:book class="report">
    <sb:bookseries>
      <sb:series>
        <sb:title>
          <sb:maintitle>Aeronautical Research Council
            reports and memoranda</sb:maintitle>
        </sb:title>
      </sb:series>
    </sb:bookseries>
    <sb:date>1951</sb:date>
    <sb:publisher>
      <sb:name>His Majesty's Stationery Office</sb:name>
      <sb:location>London</sb:location>
    </sb:publisher>
  </sb:book>
</sb:host>
```

Presentation

Gough HJ, Pollard HV, Clenshaw WJ. Some experiments on the resistance of metals to fatigue under combined stresses. Aeronautical Research Council reports and memoranda. London: His Majesty's Stationery Office; 1951.

Version history

The parameter entity `%sb.titles;` was introduced in CEP 1.1.0. Attribute `class` was added in CEP 1.2.0.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:book-series

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:book-series        ( sb:editors?, sb:series )>
```

Description

Within bibliographic references, the name of a book series and the volume number of the work within that series are captured using sb:book-series

Usage

The element sb:book-series occurs as an optional element within sb:book and sb:edited-book. Apart from a mandatory sb:series subelement, it may contain an editor group. In practice, unlike the names of the editors of an edited book, the names of the editors of a book series are seldom mentioned in bibliographic references.

XML

```
<sb:book-series>
  <sb:series>
    <sb:title>
      <sb:maintitle>Lecture Notes in Mathematics</sb:maintitle>
    </sb:title>
    <sb:volume-nr>Vol. 1201</sb:volume-nr>
```

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:collaboration

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  sb:collaboration      ( %text.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  sb:collaboration      ( %text.data; )*>
```

Description

Within structured bibliographic references, the name of a collaboration is tagged using sb:collaboration.

Usage

A collaboration denotes a group of authors who present themselves under a common name: the collaboration name. In a structured bibliographic reference, it can appear at the same place as where an sb:author can appear.

If the author is not a person but a government body or another organization, then this is not a collaboration.

Version history

In CEP 1.5.0 entity %math; was added to %text.data;.

See also

sb:author, ce:collaboration. Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:comment

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  sb:comment          ( %nondisplay.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  sb:comment          ( %nondisplay.data; )*>
```

Description

Comments within structured bibliographic references are captured using sb:comment.

Usage

The element sb:comment is used to insert text between the highly structured bibliographic references.

The element sb:comment can occur before the contribution, between the contribution and the host, and after each host. It holds text which, when rendered, can appear between the highly structured contribution and hosts. Whether the sb:comment belongs to the host or contribution before or after it cannot be signified.

sb:comment should not be confused with ce:note.

XML

```
<bib-reference id="bib49">
  <ce:label>[49]</ce:label>
  <sb:reference id="sbref056">
    <sb:comment>See the references in</sb:comment>
    <sb:contribution>...</sb:contribution>
    <sb:comment>first published in</sb:comment>
    <sb:host>...</sb:host>
    <sb:comment>also available electronically as</sb:comment>
    <sb:host>...</sb:host>
    <sb:comment>(in Japanese)</sb:comment>
  </sb:reference>
</bib-reference>
```

Version history

In CEP 1.1.1 the content model was changed to allow for more content (elements ce:footnote and ce:anchor). In CEP 1.5.0 entity %math; was added to %nondisplay.data;.

See also

ce:note. Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:conference

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  sb:conference        ( %text.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  sb:conference        ( %text.data; )*>
```

Description

Within bibliographic references, it may happen that conference information (such as the location or the date) is present for the proceedings of a conference, appearing as an `sb:issue` or an `sb:edited-book`. This information, seldom present in actual bibliographic references, can be captured using `sb:conference`.

Version history

In CEP 1.5.0 entity `%math;` was added to `%text.data;`.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:contribution

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:contribution       ( sb:authors?, ( %sb.titles; )? )>
<!ATTLIST  sb:contribution
           langtype              %language-type;   "en"
           xml:lang              %iso639;          #IMPLIED>
```

Description

Each structured bibliographic reference is divided into an "sb:contribution" and one or more "sb:host"s.

Usage

Bibliographic references are structurally split into a "contribution" and one or more "hosts". Contribution is the abstract term used for the referenced object separated from its physical appearance. An sb:contribution can be a scientific article or book, but also a map, audiotape, Internet page, etc. — any object referred to in a reference list. Some examples: In a reference to an article in a journal issue or in an edited volume, the sb:contribution contains the author names and title of the article. A monograph (simple book) is seen as one contribution within a host.

It is possible to specify the language of the contribution using the attributes langtype and xml:lang, which takes its values in %iso639;, i.e., the ISO 639 list of language codes (p. 192). The language type (%language-type;) gives an indication about the language in which the contribution is written. It can take the following values: en (English); non-en (an unspecified non-English language); iso (a language specified in the xml:lang attribute). The value unknown is used when the reference gives no indication whatsoever about the language.

The attribute xml:lang is mandatory when langtype has the value iso and may not be present for other values of langtype.

A contribution consists of an optional author group (sb:authors), and optional title and/or translated title.

Version history

The parameter entity %sb.titles; was introduced in CEP 1.1.0.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:date

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:date              ( %richstring.data; )*>
```

Description

Within structured bibliographic references, dates of publication are tagged using sb:date.

Usage

The element sb:date contains the date of publication of a structured bibliographic reference. This may contain merely a year or a full date, depending on the author's manuscript. For books or edited books multiple dates can be given — these must be captured in different sb:date elements.

XML

```
<sb:date>1999</sb:date>
```

XML

```
<sb:date>12 December 1999</sb:date>
```

XML

```
<sb:date>1975</sb:date><sb:date>1997</sb:date>
```

In name/date references, references that share the same author names and year are listed as "(Böhm, 1999a)". The "a" is *not* part of the sb:date; it is found in the ce:label subelement of ce:bib-reference, *q.v.*

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:date-accessed

Declaration

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  sb:date-accessed      EMPTY>
<!ATTLIST  sb:date-accessed
           day                   NMTOKEN          #IMPLIED
           month                 NMTOKEN          #REQUIRED
           year                  NMTOKEN          #REQUIRED>
```

Description

The element sb:date-accessed is used to capture dates on which the bibliographic reference was accessed.

Usage

In case the reference is to electronic media (sb:e-host), sb:date-accessed captures the date on which these were accessed. It is mainly used for data citations.

Three attributes, day, month, year are used to store the day, month and year respectively. The latter two attributes are mandatory. The values are numbers, not padded with zero.

Version history

This element was added in CEP 1.5.0.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:edited-book

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:edited-book        ( sb:editors?, ( %sb.titles; )?,
                                   sb:conference?, sb:edition?, sb:book-
                                   series?, sb:date+, sb:publisher?,
                                   sb:isbn? )>
```

Description

Within bibliographic references, element `sb:edited-book` is used to capture the structure of book which contains contributions from several authors, edited by an editor.

Usage

One of the four type of "hosts" is `sb:edited-book`, used when structuring references to edited books, i.e., books that contain contributions from several authors.

The first subelement, the optional editor group (`sb:editors`) contains the names of the editors of the work. This is followed by the `sb:title` and/or the `sb:translated-title`.

The edited book can be the proceedings of a conference, and if conference details, such as place and date of the conference, are present these can be captured with `sb:conference`. In practice, bibliographic references rarely contain such detailed information.

Information about the edition can be captured with `sb:edition`. If the edited book is itself a member of a book series, this can be recorded using `sb:book-series`. The publication date(s) are tagged with `sb:date`.

The name and place of the publisher are contained in `sb:publisher`.

Finally, the element `sb:isbn` can be used to capture the ISBN number of the referenced book, if required.

Version history

The parameter entity `%sb.titles;` was introduced in CEP 1.1.0.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:edition

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:edition            ( %richstring.data; )*>
```

Description

Within structured bibliographic references, information about the edition of a book is captured using `sb:edition`.

Usage

The element `sb:edition` is an optional element for a book or an edited book, and contains information about the edition.

XML

```
<sb:edition>second edition</sb:edition>
<sb:edition>3rd ed.</sb:edition>
<sb:edition>revised edition</sb:edition>
```

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:editor

Declaration

Model (CEPs 1.1.0–1.1.6)

```
<!ELEMENT  sb:editor            ( %name; )>
```

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  sb:editor            ( %name; )>
<!ATTLIST  sb:editor
           orcid                CDATA            #IMPLIED>
```

Description

Within structured bibliographic references, editor names are tagged using `sb:editor`.

Usage

The element `sb:editor` has `%name;` as its content model, which means that it contains a `ce:surname` and an optional `ce:given-name` in any order, possibly followed by a `ce:suffix` and one or more `ce:alt-name`s. For more details, see those elements.

Attribute `orcid` contains a unique identification of the author coming from a global author database: the ORCID (Open Research & Contributor ID).

Version history

In CEP 1.2.0 the attribute `orcid` was added, while element `ce:alt-name` was added to parameter entity `%name;`.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:editors

Declaration

Model (CEPs 1.1.0–1.5.0)

```
<!ELEMENT  sb:editors            ( sb:editor+, sb:et-al? )>
```

Model (CEP 1.6.0)

```
<!ELEMENT  sb:editors            ( ( ( sb:editor, sb:et-al? ) |
                                   sb:ellipsis )+ )>
```

Description

Within bibliographic references, the element sb:editors contains one or more editor names and possibly an “et al.” indicator. The element is referred to as editor group.

Usage

An sb:book-series, an sb:edited-book and an sb:issue can have (guest) editors. The element sb:editors is a container element for one or more sb:editors and optionally an sb:et-al.

Version history

The element sb:ellipsis was added to the model in CEP 1.6.0.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:e-host

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  sb:e-host            ( ce:inter-ref?, sb:date? )>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  sb:e-host            ( sb:publisher?, ce:inter-ref?,
                                  sb:version?, sb:date?, sb:date-
                                  accessed* )>
```

Description

The element sb:e-host is used to capture references to electronic media.

Usage

If one of the hosts of a bibliographic reference is a preprint in an electronic preprint archive or another document on an electronic platform, the element sb:e-host is used. The element is also used when the bibliographic reference is a data citation.

It may contain several elements, but it is only useful when it contains ce:inter-ref.

Subelement sb:publisher contains the publisher of the document or data. The hyperlink to the electronic platform is established using ce:inter-ref. For detailed information, see that element. sb:version captures the version or edition of the document or data. The date of publication can be captured with the sb:date subelement while the date(s) the document or data was accessed can be captured with subelement(s) sb:date-accessed.

XML

```
<sb:e-host>
  <ce:inter-ref id="interref37"
    xlink:role="http://www.elsevier.com/xml/linking-roles/preprint"
    xlink:href="arxiv:/hep-th/9112009">hep-th/9112009</ce:inter-ref>
</sb:e-host>
```

XML

```
<sb:e-host>
  <sb:publisher>
    <sb:name>Geological Institute, University of Tokyo</sb:name>
  </sb:publisher>
  <ce:inter-ref id="interref1"
    xlink:role="http://www.elsevier.com/xml/linking-roles/research-data"
    xlink:href="doi:10.1594/PANGAEA.726855">
      https://doi.org/10.1594/PANGAEA.726855</ce:inter-ref>
  <sb:date>2009</sb:date>
</sb:e-host>
```

Version history

Subelements sb:publisher, sb:version and sb:date-accessed were added in CEP 1.5.0.

See also

Bibliographic references are explained in more detail in the section Bibliographic references (p. 472).

sb:ellipsis

Declaration

Model (CEPs 1.4.0–1.6.0)

```
<!ELEMENT  sb:ellipsis          EMPTY>
```

Description

Within structured bibliographic references, occurrences of an ellipsis can be captured with sb:ellipsis.

Usage

In the American Psychological Association (APA) style, 6th edition, a reference has at most seven authors mentioned. In case of more than seven authors, the first six and the last one are mentioned, while the remaining authors are represented by an ellipsis. The ellipsis in such a reference is captured with element sb:ellipsis. This element is only to be used in case of this particular reference style. Note that in the rendering there is no comma after the ellipsis.

XML

```
<ce:bib-reference id="br0120">
  ...
  <sb:authors>
    <sb:author>
      <ce:given-name>C.P.</ce:given-name>
      <ce:surname>Black</ce:surname>
    </sb:author>
    ...
    <sb:author>
      <ce:given-name>A.L.</ce:given-name>
      <ce:surname>Bee</ce:surname>
    </sb:author>
    <sb:ellipsis/>
    <sb:author>
      <ce:given-name>S.P.</ce:given-name>
      <ce:surname>Clark</ce:surname>
    </sb:author>
  </sb:authors>
  ...
</ce:bib-reference>
```

Presentation

Black, C. P., Arlo, S. T., Rechit, R., Machlen, J. P., Sempson, K., Bee, A. L., … Clark, S. P. (2001). APA format for psychology students. Newark, NJ: Prentice-Hall.

Version history

The element sb:ellipsis was added in CEP 1.4.0.

sb:et-al

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:et-al              EMPTY>
```

Description

Within structured bibliographic references, occurrences of the phrase “et al.” are structured with `sb:et-al`.

Usage

The element `sb:et-al` is used when the bibliographic reference only lists part of the authors or editors.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:first-page

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:first-page          ( %richstring.data; )*>
```

Description

Within structured bibliographic references, the number of the first page of a publication is tagged using sb:first-page.

Usage

The element sb:first-page contains the first page of a bibliographic reference. If the reference has a page *range*, the number of the last page is to be captured using sb:last-page. The element may not contain an en-dash.

XML

```
<sb:first-page>121</sb:first-page>
```

XML

```
<sb:first-page>A-12</sb:first-page>
```

XML

```
<sb:first-page>37v</sb:first-page>
```

See also

sb:last-page. Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:host

Declaration

Model (CEPs 1.1.0–1.1.6)

```
<!ELEMENT  sb:host              ( ( ( sb:issue, sb:pages? ) | sb:book
                                  | ( sb:edited-book, sb:pages? ) |
                                  sb:e-host ), ce:doi? )>
```

Model (CEP 1.2.0)

```
<!ELEMENT  sb:host              ( ( ( ( sb:issue | sb:book | sb:edited-
                                  book ), sb:pages? ) | sb:e-host ),
                                  ce:doi? )>
```

Model (CEPs 1.4.0–1.6.0)

```
<!ELEMENT  sb:host              ( ( ( ( sb:issue | sb:book | sb:edited-
                                  book ), sb:pages? ) | sb:e-host ),
                                  sb:article-number?, ce:doi? )>
```

Description

Within bibliographic references, the structure of a host is captured using `sb:host`.

Usage

A bibliographic reference is structurally split into a “contribution” and one or more “hosts”. The host is the physical appearance that “contains” the reference. There can be more than one host: a version of an article on the author’s homepage, a version in a journal issue, a version in a spin-off book, a version on ScienceDirect®.

A host can be one of four varieties: `sb:issue`, `sb:book`, `sb:edited-book` or `sb:e-host`. For more information, see these elements.

In order to locate the contribution within an issue, a book or an edited book, an optional `sb:pages` is added to the `sb:host`.

Each host can have a DOI, captured using the `ce:doi` element.

Version history

Prior to DTD 5.0, the `pages` element was contained within elements `issue` and `edited-book`. Adding `sb:pages` to a `sb:book` was made possible in CEP 1.2.0. Element `sb:article-number` was added in CEP 1.4.0.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:isbn

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:isbn              ( %string.data; )*>
```

Description

Within structured bibliographic references, the ISBN of a book is tagged using sb:isbn.

Usage

If in structured references the ISBN of a book needs to be captured, this can be done by the element sb:isbn.

In practice, bibliographic references rarely contain ISBNs. The element is very useful, however, in the frontmatter of a book review.

XML

```
<sb:isbn>0-13-065567-8</sb:isbn>
```

See also

book-review. Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:issn

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:issn              ( %string.data; )*>
```

Description

Within structured bibliographic references, the ISSN of a serial publication is captured using sb:issn.

Usage

Although this happens rarely in practice, an ISSN of a serial publication can be tagged with sb:issn. This element is an optional element within sb:series.

XML

```
<sb:issn>0167-8396</sb:issn>
```

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:issue

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:issue              ( sb:editors?, ( %sb.titles; )?,
                                   sb:conference?, sb:series, sb:issue-
                                   nr?, sb:date )>
```

Description

Within bibliographic references, the structure of a journal issue is captured using sb:issue.

Usage

One of the four type of “hosts” is sb:issue, used when structuring references to articles in journal issues or to whole journal issues. The article is the “contribution”; the journal issue is the “host”.

The first three subelements of sb:issue are an editor group (sb:editors), sb:title and/or sb:translated-title, and conference information (sb:conference). These are used when the bibliographic reference contains special issue information.

The titles mentioned above should not be confused with the titles appearing within the subelement sb:series, which contains the journal name and optionally the volume number. Each reference to an issue must have a title within sb:series (the journal name) but much fewer references will have a title on the sb:issue level.

If available, the issue identification can be captured with sb:issue-nr.

The last subelement, the mandatory sb:date, contains the publication date of the issue. (Most references only have the year.)

The page range on which the article appears is captured within the sb:pages element on the sb:host level.

XML

```
<sb:host>
  <sb:issue>
    <sb:series>
      <sb:title>
        <sb:maintitle>Theoret. Comput. Sci.</sb:maintitle>
      </sb:title>
      <sb:volume-nr>193</sb:volume-nr>
    </sb:series>
    <sb:issue-nr>1-2</sb:issue-nr>
    <sb:date>1998</sb:date>
  </sb:issue>
  <sb:pages>
    <sb:first-page>97</sb:firstpage>
    <sb:last-page>112</sb:lastpage>
  </sb:pages>
</sb:host>
```

XML

```
<sb:host>
  <sb:issue>
    <sb:editors>Christer Carlsson and Robert Fullér</sb:editors>
    <sb:title>
      <sb:maintitle>Soft Decision Analysis</sb:maintitle>
    </sb:title>
    <sb:series>
      <sb:title>
        <sb:maintitle>Fuzzy Sets and Systems</sb:maintitle>
      </sb:title>
      <sb:volume-nr>115</sb:volume-nr>
    </sb:series>
    <sb:date>2000</sb:date>
  </sb:issue>
</sb:host>
```

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:issue-nr

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:issue-nr          ( %richstring.data; )*>
```

Description

Within structured bibliographic references, issue numbers are tagged using sb:issue-nr.

Usage

The element sb:issue-nr may contain an issue number or a range of issue numbers.

XML

```
<sb:issue-nr>2&#x02013;4</sb:issue-nr>
```

XML

```
<sb:issue-nr>Suppl. 1</sb:issue-nr>
```

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:last-page

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:last-page          ( %richstring.data; )*>
```

Description

Within structured bibliographic references, the last page of a page range can be captured using sb:last-page.

Usage

The number of the last page of a bibliographic reference is contained in sb:last-page. It should always be greater than sb:first-page.

Copy edit considerations

The number of the last page should always be given in full. That is, if a page range 147–9 is given, sb:last-page should contain 149. Similarly, in case of page range S155–161, sb:last-page should contain S161.

See also

sb:first-page. Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:location

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:location          ( %richstring.data; )*>
```

Description

Within structured bibliographic references, the location of a publisher can be captured using the element sb:location.

Usage

See sb:publisher.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:maintitle

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  sb:maintitle          ( %text.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  sb:maintitle          ( %text.data; )*>
```

Description

The main title of a structured bibliographic reference is captured using `sb:maintitle`.

Usage

See `sb:title`.

Version history

In CEP 1.5.0 entity `%math;` was added to `%text.data;`.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:name

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:name              ( %richstring.data; )*>
```

Description

Within structured bibliographic references, the name of the publisher is captured using sb:name.

Usage

See sb:publisher.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:pages

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:pages              ( sb:first-page, sb:last-page? )>
```

Description

Within structured bibliographic references, pages or page ranges of a publication are contained in sb:pages.

Usage

The element sb:pages contains a mandatory sb:first-page and an optional sb:last-page.

XML

```
<sb:pages>
  <sb:first-page>37</sb:first-page>
  <sb:last-page>51</sb:last-page>
</sb:pages>
```

Presentation

37–51

Some layout styles abbreviate 121–127 to 121–7. This should be solved by the style sheet: the last page is always captured as “127”.

Version history

The element has been moved to the sb:host level and out of the sb:issue and sb:edited-book level.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:publisher

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:publisher          ( sb:name, sb:location? )>
```

Description

Within structured bibliographic references, the name and place of the publisher of the publication or the data are captured using sb:publisher.

Usage

The element sb:publisher contains a mandatory sb:name, the name of the publisher or the imprint, and an optional sb:location, the place or places where the publisher is located.

XML

```
<sb:publisher>
  <sb:name>North-Holland</sb:name>
  <sb:location>Amsterdam</sb:location>
</sb:publisher>
```

XML

```
<sb:publisher>
  <sb:name>American Mathematical Society</sb:name>
  <sb:location>Providence, RI</sb:location>
</sb:publisher>
```

XML

```
<sb:publisher>
  <sb:name>Springer-Verlag</sb:name>
  <sb:location>Heidelberg, Berlin</sb:location>
</sb:publisher>
```

XML

```
<sb:publisher>
  <sb:name>GeoForschungsZentrum Potsdam (GFZ)</sb:name>
</sb:publisher>
```

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:reference

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:reference          ( ce:label?, sb:comment?, ( sb:contribution,
                                   sb:comment? )?, ( sb:host,
                                   sb:comment? )+ )>
<!ATTLIST  sb:reference
           id                    ID               #IMPLIED
           xmlns:sb              CDATA            #FIXED %ESSB.xmlns;>
```

Description

The element sb:reference is used to capture a fully structured reference.

Usage

A structured reference is contained in an sb:reference element. Each sb:reference consists of an optional sb:contribution and one or more sb:hosts. Comments can be inserted between these elements using sb:comment.

An sb:reference may have a ce:label subelement and an id attribute. These are used if the sb:reference is part of a multiple reference.

Version history

Prior to DTD 5.0, this element was called bb.

See also

sb:comment, sb:contribution and sb:host. Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:series

Declaration

Model (CEPs 1.1.0–1.1.6)

```
<!ELEMENT  sb:series            ( ( %sb.titles; ), sb:issn?, sb:volume-
                                  nr? )>
```

Model (CEPs 1.2.0–1.6.0)

```
<!ELEMENT  sb:series            ( ( %sb.titles; )?, sb:issn?, sb:volume-
                                  nr? )>
```

Description

Within structured bibliographic references, the element `sb:series` is used to identify serial publications.

Usage

The element `sb:series` is used to capture the journal title and the volume number of an issue appearing in that journal, or the title of a book series and the volume number of a book that appears in a book series. It can also contain the ISSN of the serial publication.

Although all subelements are optional, at least one should be present.

Version history

The parameter entity `%sb.titles;` was introduced in CEP 1.1.0. It was made optional in CEP 1.2.0.

See also

`sb:book-series` and `sb:issue`. Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:subtitle

Declaration

Model (CEPs 1.1.0–1.4.0)

```
<!ELEMENT  sb:subtitle          ( %text.data; )*>
```

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  sb:subtitle          ( %text.data; )*>
```

Description

The subtitle of a structured bibliographic reference is captured using `sb:subtitle`.

Usage

See `sb:title`.

Version history

In CEP 1.5.0 entity `%math;` was added to `%text.data;`.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:title

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:title              ( sb:maintitle, sb:subtitle? )>
```

Description

Within bibliographic references, titles are tagged using sb:title. Depending on the context, this can be the title of an article or a book, the name of a journal or a book series, etc.

Usage

An sb:book, an sb:contribution, an sb:edited-book, an sb:issue and an sb:series can have an sb:title.

An sb:title consists of sb:maintitle and optionally sb:subtitle. Please refer to ce:subtitle for a description of what constitutes a subtitle.

XML

```
<sb:title>
  <sb:maintitle>The SGML Implementation Guide</sb:maintitle>
  <sb:subtitle>A Blueprint for SGML Migration</sb:subtitle>
</sb:title>
```

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:translated-title

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:translated-title   ( sb:maintitle, sb:subtitle? )>
```

Description

Within bibliographic references, translated titles are tagged using sb:translated-title.

Usage

Often, when a contribution is written in a different language, the author has translated the title for the benefit of the reader. A comment "(in Dutch)" or similar is then added to the reference. To this end, sb:book, sb:contribution, sb:edited-book, sb:issue and sb:series can have an sb:translated-title.

The element sb:translated-title consists of a sb:maintitle as well as an optional sb:subtitle. See sb:title for more information.

XML

```
<sb:contribution>
  <sb:authors>
    <sb:author>
      <sb:given-name>E.M.H.</sb:given-name>
      <sb:surname>Assink</sb:surname>
    </sb:author>
    <sb:author>
      <sb:given-name>N.</sb:given-name>
      <sb:surname>Verloop</sb:surname>
    </sb:author>
  </sb:authors>
  <sb:title>
    <sb:maintitle>Het aanleren van deel&#x02013;geheel
      relaties</sb:maintitle>
  </sb:title>
  <sb:translated-title>
    <sb:maintitle>Teaching part&#x02013;whole
      relations</sb:maintitle>
  </sb:translated-title>
</sb:contribution>
```

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:version

Declaration

Model (CEPs 1.5.0, 1.6.0)

```
<!ELEMENT  sb:version            ( %string.data; )*>
```

Description

The element sb:version is used to capture the version of the bibliographic reference.

Usage

In case the reference is to electronic media (sb:e-host), the version or edition is captured with sb:version. It is mainly used for data citations.

Version history

This element was added in CEP 1.5.0.

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

sb:volume-nr

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  sb:volume-nr          ( %richstring.data; )*>
```

Description

Within structured bibliographic references, volume numbers are tagged using sb:volume-nr.

Usage

The element sb:volume-nr may contain a volume number or a range of volume numbers.

XML

```
<sb:volume-nr>121</sb:volume-nr>
```

XML

```
<sb:volume-nr>XL&#x02013;XLII</sb:volume-nr>
```

See also

Structured references are explained in more detail in the section Bibliographic references (p. 472).

Chapter 11
MathML

The Elsevier DTD 5 family uses MathML for its mathematical formulae. The element `mml:math` can be used inline and as subelement of `ce:formula`.

We refer to specialized MathML documentation for more information about MathML tagging.

MathML exists in two forms known as Presentational MathML and Content MathML. Content MathML captures the meaning of the formula; the presentation of the formula is a derivative thereof. Presentational MathML merely captures the presentation of the formula; mathematical notation is such that the meaning can be derived from the presentation to some extent, but never fully so.

It is expected that Content MathML cannot be written or keyed in by humans; it will always be generated by mathematical software. We do not expect to receive much material in Content MathML from authors. Conversions from mathematical typesetting formats such as TEX will produce Presentation MathML. Therefore our articles will almost always contain Presentational MathML when they follow the regular workflow.

We do not exclude Content MathML. Applications downstream should in principle be prepared to receive and process both types of MathML.

CEP 1.6 introduces MathML3 (v3.0, 2nd edition) with a few modifications by Elsevier. For backwards compatibility reasons these contain the change to the `mml:mtext` element (allowing, for instance, to make cross-references within a displayed formula) and the inclusion of a file `htmlmathml-f.ent` with entities like `Ã` (defined as `Ã`). Use of both functionalities is deprecated and disallowed by Elsevier's validation tool.

MathML Plane One characters may not be used, `mathvariant` should be used instead.

Usage of MathML elements and attributes

For backwards compatibility, version 3 of the MathML standard [24] contains a number of deprecated attributes, which were present in earlier versions. These attributes must not be used in Elsevier articles and books. They are listed in the following pages. There is one exception: The `font*` attributes may be used in exceptional cases, see the subsection on 'Style, fonts and mathvariants'.

The MathML standard covers many publication contexts, from articles in scientific journals to distant learning courses on the web. Consequently, some elements and attributes are more applicable to one publication context than to another. In the following pages we list the elements and attributes which are currently considered not to be applicable in the context of Elsevier articles and books. Such elements and attributes may not be used. It should be noted that understanding of this issue may evolve with time. For example, we do not see a role for the `mml:maction` element in current publications. With increasing understanding of the possibilities of MathML by both authors and web publishing platforms, suitable forms of usage of the `mml:maction` element may be identified in the years to come.

The following listing indicates which attributes are deprecated in MathML 3, and which elements and attributes may not be used in the context of Elsevier articles and books.

Style, fonts and mathvariants

The MathML specification [24] allows the CSS attribute `style` on all elements. In addition it allows the attributes `fontfamily`, `fontweight`, `fontstyle` and `mathvariant` on all token elements. Each of these attributes can be used to specify a different style for a variable. But these attributes convey different information about the variable, and therefore they cannot be used interchangeably.

The CSS (Cascading Style Sheet) attribute `style` indicates a style that is imposed by features that are external to the formula, and which has no influence on the interpretation of the formula. An example is the boldening of an inline formula in a bold header. Because such presentational markup may not be used in our articles, the attribute `style` must not be used.

It is a characteristic of mathematical notation that a style change for a single variable indicates a different meaning of the variable: a boldface $\boldsymbol{A}$ is a different variable than A. Such a style change may be achieved by the attribute `mathvariant`. The list of values of `mathvariant` is constrained, and the symbol in the desired style must exist as a mathematical styled character in Unicode, usually in Plane One.

If a symbol is desired in a style that is not an allowed value of the `mathvariant` attribute, or if a symbol in a desired style does not exist as a mathematical styled character in Unicode, it can currently not be used in that style. For example, it is not possible to have italic double-struck (open-face) characters, because italic double-struck is not an allowed value of the `mathvariant` attribute, and also because italic double-struck characters do not exist as mathematical styled characters in Unicode.

In the future we may allow the possibility to mark a symbol up using the attributes `fontfamily`, `fontweight` and `fontstyle`. The value of the attribute `fontfamily` should be one of a list of recognized font families. Currently there are no recognized font families,

and therefore this feature is not available. We will add fonts to the list when they are required in publications. The main candidates seem to be open-face (double-struck) fonts, for which DTD 4.x allowed more styles than MathML. It should be noted, however, that such symbols may not easily be rendered on each reader's computer; therefore this feature should be used only in exceptional cases.

The MathML specification [24, section 3.2.2.1] excludes the combined usage of the `font*` attributes and the `mathvariant` attribute.

It is not allowed to use the font changing elements from the CEP to mark up a variable in MathML, not even in the `mml:mtext` element. Of course, font changing elements from the CEP are allowed to mark up an in-line formula that is tagged without MathML.

All elements

The attribute `other` is deprecated, and must not be used. The attributes `xlink:href`, `xlink:type`, `style` must not be used.

Token elements

The attributes `color` and `fontsize` are deprecated, and must not be used. The attributes `mathsize`, `mathcolor`, and `mathbackground` must not be used.

The attributes `fontfamily`, `fontweight` and `fontstyle` should only be used in exceptional cases, see the subsection on 'Style, fonts and mathvariants'.

Individual elements

mml:math

The attribute `mode` is deprecated and must not be used. The attributes `macros`, `overflow`, `xsi:schemaLocation`, `height` and `width` must not be used.

mml:mo

The `true` values of the attributes `fence`, `separator`, `accent` and `largeop` are mutually exclusive.

When the attribute `fence` has the value `true`, the `form` attribute may only have the values `prefix` or `postfix`.

When the attribute `accent` has the value `true`, the `form` attribute may only have the value `postfix`.

When the attribute `largeop` has the value `true`, the `form` attribute may only have the value `prefix`.

The attributes `symmetric`, `maxsize` and `minsize` only make sense when the attribute `stretchy` has the value `true`.

mml:mglyph

The element `mml:mglyph` should only be used in exceptional cases. The value of the attribute `fontfamily` must be taken from a list of allowed values; currently that list is empty.

mml:mstyle

The `mml:mstyle` element is used to make style changes that affect the rendering of its contents. `mml:mstyle` can be given any attribute accepted by any MathML presentation

element provided that the attribute value is inherited, computed or has a default value (MathML specification [24, section 3.3.4.1]). For such attributes the rules apply that are mentioned with the individual elements.

In addition, there are a number of attributes which may only be specified on the mml:mstyle element: background, scriptsizemultiplier, scriptminsize, veryverythinmathspace, verythinmathspace, thinmathspace, mediummathspace, thickmathspace, verythickmathspace, veryverythickmathspace. None of these attributes is allowed to be used.

mml:mtext

The attributes mathvariant, fontweight, fontstyle, fontfamily must not be used.

mml:merror

The mml:merror element must not be used.

mml:maction

The mml:maction element must not be used.

mml:math

Declaration

Model

```
<!ELEMENT  math                 ( mi | mn | mo | mtext | mspace | ms
                                  | maligngroup.qname | malignmark
                                  | mrow | mfrac | msqrt | mroot
                                  | mstyle | merror | mpadded
                                  | mphantom | mfenced | menclose
                                  | msub | msup | msubsup | munder
                                  | mover | munderover | mmultiscripts
                                  | mtable | mstack | mlongdiv | maction
                                  | malignmark | maction
                                  | %ContInPres; )>
<!ATTLIST  math
           xmlns:mml            CDATA             #FIXED
                                http://www.w3.org/1998/Math/MathML
           xlink:href           CDATA             #IMPLIED
           xlink:type           CDATA             #IMPLIED
           class                CDATA             #IMPLIED
           style                CDATA             #IMPLIED
           id                   ID                #IMPLIED
           xref                 IDREF             #IMPLIED
           other                CDATA             #IMPLIED
           macros               CDATA             #IMPLIED
           mode                 CDATA             #IMPLIED
           display              (block|inline)    #IMPLIED
           height               CDATA             #IMPLIED
           width                CDATA             #IMPLIED
           overflow             (linebreak|scroll|elide|truncate|scale)
                                                  'scroll'
           altimg               CDATA             #IMPLIED
           alttext              CDATA             #IMPLIED  ...  >
```

Description

The element mml:math contains a MathML formula.

Usage

The mml:math element, which can be used inline and within ce:formula, is used to capture mathematical formulae. It is an element belonging to MathML, and we refer to MathML documentation for details. It is well-known that parsing MathML is not sufficient for a file to conform to the MathML specifications.

mml:math must never be nested within mml:math.

Each mml:math is delivered together with a graphical representation for rendering applications that cannot handle MathML. Such an image is called a *strip-in*. The attribute altimg contains the name of the strip-in image, it is a file name inclusive extension, see the section on strip-in images (p. 23).

The attribute mode is deprecated, and should not be used. The attributes style, macros and overflow should not be used.

See also

ce:enunciation, ce:formula, ce:italic

Chapter 12
(Extended) CALS tables

Over the course of the years contractors of the US Department of Defense converged to a single table model, the so-called CALS Table Model (Computer-Aided Logistics Support). It became a *de facto* standard, which was used by many and supported by many software packages. OASIS published documentation of the full CALS table elements and attributes [13], in order to promote a shared interpretation. It has also critically reviewed the CALS table model and the software support for it. The result is the OASIS Exchange Model [15].

In the DTD 5.0 family, Elsevier has adopted CALS tables according to this OASIS Exchange Model. The parametrization was exploited to make `%cell.data;` the content of a table cell and to furnish the tables with a label, a caption, a legend and table footnotes. However, as became apparent, even with the extensive parametrization options, the CALS table model was not sufficient for our needs. This is why we extended the CALS tables with the border elements from earlier Elsevier DTDs and with a modified element for column specifications. These additional elements are placed in their own namespace, `http://www.elsevier.com/xml/common/table/dtd`, which can be recognized by the `tb:` prefix.

A CALS table is not necessarily valid if it satisfies the DTD. The description of `entry` in the CALS specification [15] summarizes conditions which make a CALS table invalid. These error conditions translate into the following requirements:

- A column name used in a `colname`, `namest` or `nameend` attribute must be a `colname` declared in a `colspec` or a `tb:colspec` in the containing `tgroup`.
- The names declared in different `colspec`s and `tb:colspec`s of a `tgroup` must be different.
- It is an error if portions of different `entry`s overlap each other.
- It is an error if an `entry`'s `morerows` attribute specifies more additional rows than the number of remaining rows defined for the containing `thead` or `tbody`.
- It is an error if the number of columns filled by the `entry`s in a row, taking column spanning by `entry`s in that row, and row spanning by `entry`s in previous rows into account, exceeds the value of the `cols` attribute of the containing `tgroup`.
- The column specified by the `nameend` attribute of an `entry` must be to the right of (i.e. have a higher column number than) the column specified by the `namest` attribute of the `entry`.

Note. The `morerows` attribute denotes the number of *additional* rows spanned. In this respect it differs from the attribute `rspan` of DTD 4 and the attribute `rowspan` of HTML: `morerows` $=$ `rspan` $-\,1$.

Note. `entry` elements which span more rows require special attention. They fill columns in their own row and in one or more following rows. The following rows have no `entry`

elements for those columns. It is not necessary nor allowed to place empty `entry` elements in those rows as placeholders.

The CALS table specification allows some fairly complicated constructions using column names. Elsevier wants to avoid such complications. Elsevier wants to ensure that its CALS tables have a regular and straightforward structure, and are easily transformed into display formats. This can be summarized in the following requirements. These requirements are additional to the standard CALS requirements listed above.

- An `entry` may not have both a `namest` attribute and a `colname` attribute.
- If an `entry` has a `nameend` attribute, it must also have a `namest` attribute.
- The `colspec`s and `tb:colspec`s must be listed in column order.
- There must be a `colspec` or `tb:colspec` for every column, up to the number of columns declared in the `cols` attribute of the containing `tgroup`.
- It is an error if there is a `colspec` or `tb:colspec` for a column whose number is higher than the number of columns declared in the `cols` attribute of the containing `tgroup`.
- The column names declared in the `colspec` or `tb:colspec` elements must adhere to the pattern: “col” followed by the column number, i.e. “col*N*”.
- The `entry`s in a row must be listed in column order, taking into account that `entry`s which are straddled by row spanning `entry`s in previous rows, should be skipped.
- All `entry`s in a row must be listed, taking into account that `entry`s which are straddled by row spanning `entry`s in previous rows, should be skipped.

The latter two rules are almost identical to the requirements for cells in DTD 4. The difference is that no `entry`s are listed which are spanned by other `entry`s.

This chapter contains a listing of the elements of the extended CALS table model. We first give a number of examples of CALS tables. After a brief overview of the native CALS elements (for more information, we refer to [1] and [15]) we list the CALS table extensions.

A table containing at least one element from the `tb` namespace is called an *extended* CALS *table*. Tables without these extensions are called *native* CALS *tables*.

It is only allowed to create an extended CALS table if a native CALS table cannot be used to represent the table. The examples in the next section show and explain the cases when this is appropriate. In the following cases an extended CALS table is inevitable:

- when the alignment in cells requires vertical alignmarks, `tb:alignmark`;
- when the border style is an “ornament” (see the ornament tables, p. 555), other than a single vertical or horizontal line;
- when the cell borders at the outer extremities of the table require a different border style than the table frame (the frame cannot be overruled);
- when cells need a top border but the cell above spans different columns;
- when cells need a left border but the cell to the left spans different rows.

Bridge lines

Spanning lines or bridge lines spanning a number of columns in the head of a table are created by setting the rowsep of the cell above the spanned columns. We define that the rowseps of different cells within the interior of the head never touch. This is similar to the definition in DTD 4.x.

Inheritance of attribute values

The CALS table model does not use default attribute values in the strict sense, that is, default values that are specified in the DTD, and that are reported by a parser. Instead, it uses the absence of an attribute value to signal that the value should be inherited from a specified other element, usually the parent element, or that it has a default value. The CALS specification mentions the possibility to specify default values in style sheets. That possibility is not used in Elsevier's XML files; the default values are those listed in the CALS specification.

The inheritance paths and default values are as follows:

attribute	inheritance path	default
`valign`	`entry` ⟶ `row` ⟶ { `thead` / `tbody` }	bottom / top
`align`	`entry` ⟶ `colspec` ⟶ `tgroup`	left
`char`	`entry` ⟶ `colspec` ⟶ `tgroup`	–
`charoff`	`entry` ⟶ `colspec` ⟶ `tgroup`	50%
`rowsep`	`entry` ⟶ `row` ⟶ `colspec` ⟶ `tgroup` ⟶ `ce:table`	1
`colsep`	`entry` ⟶ `colspec` ⟶ `tgroup` ⟶ `ce:table`	1

In this scheme, each ⟶ means: if the attribute value is not specified for the element on the left, use the value from the element on the right. Each occurrence of `colspec` should be read as `colspec` or `tb:colspec`.

CALS tables — Examples

Example 1

The following table is a standard CALS table except for column 6. Column 6 uses an `alignmark`, which is not available in standard CALS. The fact that this column uses an extension to the standard CALS table model is signalled by the presence of the `tb` prefix on the `tb:colspec` and `tb:alignmark` elements.

XML

```
<ce:table id="tbl001" frame="topbot" colsep="0" rowsep="0">
  <ce:label>Table 1</ce:label>
  <ce:caption id="c4">
    <ce:simple-para id="sp4">Sm-Nd data.</ce:simple-para>
  </ce:caption>
  <tgroup cols="6">
    <colspec colname="col1"/>
    <colspec colname="col2"/>
    <colspec colname="col3"/>
    <colspec colname="col4"/>
    <colspec colname="col5"/>
    <tb:colspec colname="col6"/>
    <thead>
      <row valign="top" rowsep="1">
        <entry namest="col1" nameend="col2">Eclogites</entry>
        <entry>Sm</entry>
        <entry>Nd</entry>
        <entry><ce:sup loc="pre">147</ce:sup>Sm
               / <ce:sup loc="pre">144</ce:sup>Nd</entry>
        <entry>Yield (%)</entry>
      </row>
    </thead>
    <tbody>
      <row valign="top">
        <entry>162a</entry>
        <entry>Grenat</entry>
        <entry align="char" char=".">0.92</entry>
        <entry align="char" char=".">2.31</entry>
        <entry align="char" char="+">0.240 + 0.005</entry>
        <entry>10.512 <tb:alignmark/>+ 10.000 <tb:alignmark/>&minus; 0.500</entry>
      </row>
      <row valign="top">
        <entry/>
        <entry>Omphacite</entry>
        <entry align="char" char=".">6.41</entry>
        <entry align="char" char=".">23.60</entry>
        <entry align="char" char="+">0.164 + 0.04</entry>
        <entry>10.51 <tb:alignmark/>+ 10.05 <tb:alignmark/>&minus; 0.05</entry>
      </row>
    </tbody>
  </tgroup>
</ce:table>
```

Presentation

Table 1
Sm-Nd data.

Eclogites		Sm	Nd	$^{147}Nd/^{144}Nd$	$^{143}Nd/^{144}Nd$
162a	Grenat	0.92	2.31	0.240 + 0.005	10.512 + 10.000 - 0.500
	Omphacite	6.41	23.60	0.164 + 0.04	10.51 + 10.05 - 0.05

Explanation

The horizontal rules at the top and bottom of the table are specified by the value `topbot` of the `frame` attribute of the `ce:table` element.

The default value of the `colsep` and `rowsep` attributes of the `ce:table` element is implied, which according to the CALS documentation means that there are row and column separators for each row and column unless specified otherwise for a certain row, column or entry. Here we specify the value 0 for these attributes, which means that in this table we have no row and column specifiers unless specified otherwise for a certain row, column or entry.

The table has a single `tgroup` element, with a `thead` containing one row and a `tbody` containing 2 rows.

The `tgroup` starts with five `colspec` elements. They have no `colnum` attribute, and thus are automatically assigned to columns 1 to 5. They *do* specify a name for the column, in the `colname` attribute. This name is used below to specify column spanning.

The sixth element is a `tb:colspec` element. This indicates automatically that the column uses alignment markers `tb:alignmark`, due to the default value `mark` of its `align` attribute.

In principle the `colspec` elements for columns 3 to 5 could have been omitted, because we do not make use of them, and the `tb:colspec` element for column sixth could have specified that it applies to column 6, by the value of its `colnum` attribute. However, skipping `colspec` elements is less desirable because it is not supported by all CALS table applications.

The first `entry` of the first `row` spans two columns. This is indicated by the values of the `namest` and `nameend` attributes, which are the names of the starting and ending columns.

The other entries in this row override the alignment specified for the column by having their own `align` attributes.

The rule between the table head and the table body must be specified explicitly. This is done by the value `1` of the `rowsep` attribute of the `row`.

The fifth entries in the two rows in the `tbody` demonstrate that alignment may be specified on any character: these entries align on the '+' character.

The last entries use two alignment markers `tb:alignmark` to align on the + and − signs in the entry. Note that an alignment marker may introduce space to its left (see the example in the discussion of the `tb:alignmark` element). An earlier version of this example ignored that fact and was therefore in error.

This column alignment mechanism has a superficial similarity with the alignment mechanism using alignment markers and alignment groups in MathML; see Section 3.5.5 of the

MathML specification. The latter, however, is more complicated and more powerful, due to its usage of alignment groups.

Finally note that `entry` has mixed content. Therefore, if one would insert a linebreak after the start tag, one would insert a space at the start of the entry's content. Similarly for a line break before the end tag. This would be undesirable.

Example 2

The following table demonstrates our requirements for regular tables.

- For each column a `colspec` element is present, and the `colspec` elements are listed in column order.
- All `entry` elements of a row are listed, in column order. Only a series of empty `entry` elements at the end of the row has been omitted.

Rows 4 and 5 demonstrate entries which span more than one row. Entries 1–3 of row 4 extend into row 5 and fill columns 1–3 in that row as well. In row 5 there are no entries for columns 1–3; the first listed (empty) entry automatically falls in column 4.

XML

```
<ce:table id="tbl1" frame="all">
  <tgroup cols="5">
    <colspec colnum="1" colname="col1"/>
    <colspec colnum="2" colname="col2"/>
    <colspec colnum="3" colname="col3"/>
    <colspec colnum="4" colname="col4"/>
    <colspec colnum="5" colname="col5"/>
    <tbody>
      <row>
        <entry>A</entry>
        <entry>B</entry>
        <entry>C</entry>
        <entry>D</entry>
        <entry>E</entry>
      </row>
      <row>
        <entry/>
        <entry/>
        <entry>C</entry>
      </row>
      <row>
        <entry/>
        <entry namest="col2" nameend="col4">BCD</entry>
        <entry>E</entry>
      </row>
      <row>
        <entry namest="col1" nameend="col3" morerows="1">ABCABC</entry>
        <entry>D</entry>
      </row>
      <row>
        <!--NO ENTRY-->
        <!--NO ENTRY-->
        <!--NO ENTRY-->
        <entry/>
        <entry>E</entry>
```

```
      </row>
    </tbody>
  </tgroup>
</ce:table>
```

Presentation

A	B	C	D	E
		C		
	BCD			E
ABCABC			D	
				E

Example 3

The following table is a standard CALS table except for one row. The cells in this row specify a left border, a top border and a right border, which are not available in standard CALS. The fact that this row uses an extension to the standard CALS table model is signalled by the presence of the `tb` prefix on the `tb:left-border`, `tb:top-border` and `tb:right-border` elements.

XML

```
<ce:table id="tbl1" frame="topbot" colsep="0" rowsep="0">
  <ce:label>Table 1</ce:label>
  <ce:caption id="c5">
    <ce:simple-para id="sp1">Colours</ce:simple-para>
  </ce:caption>
  <ce:link locator="tbl1" xlink:type="simple" xlink:role=
    "http://data.elsevier.com/vocabulary/ElsevierContentTypes/23.4"
    xlink:href="pii:S2405656115001339/tbl1"/>
  <tgroup cols="3">
    <colspec colnum="1" colname="col1" colwidth="3*"/>
    <colspec colnum="2" colname="col2" colwidth="2*"/>
    <colspec colnum="3" colname="col3" colwidth="4*"/>
    <thead>
      <row rowsep="1">
        <entry>Colour 1</entry>
        <entry>Colour 2</entry>
        <entry>Colour 3</entry>
      </row>
    </thead>
    <tbody>
      <row>
        <entry>Red</entry>
        <entry>Green</entry>
        <entry>Blue</entry>
      </row>
      <row>
        <entry namest="col1" nameend="col3">White<ce:cross-ref id="cr4"
        refid="tblfn1"><ce:sup>a</ce:sup></ce:cross-ref></entry>
      </row>
      <row>
        <entry colsep="1"><tb:left-border/>Blue</entry>
        <entry morerows="1" colsep="1"><tb:top-border/>High
          Green</entry>
```

```
        <entry><tb:right-border/>Red</entry>
      </row>
      <row>
        <entry colsep="1" colname="col1">Red</entry>
        <!--NO ENTRY-->
        <entry>Blue</entry>
      </row>
    </tbody>
  </tgroup>
  <ce:legend>
    <ce:simple-para id="sp17">The colours in this table are shown in
various cell entry layouts. These layouts demonstrate the various
possibilities of CALS tables and of the extensions to CALS
tables.</ce:simple-para>
  </ce:legend>
  <ce:table-footnote id="tblfn1">
    <ce:label>a</ce:label>
    <ce:note-para id="np14">White is obtained by applying an equal
      mixture of Red, Green and Blue.</ce:note-para>
  </ce:table-footnote>
</ce:table>
```

Presentation

The table below is a not-to-scale rendition of the table tagged above. The thick lines denote "real" lines, the thin lines indicate cell borders without border lines. The dotted oblong represents an included image.

Table 1
Colours

Image tbl1

Colour 1	Colour 2	Colour 3
Red	Green	Blue
White[a]		
Blue	High Green	Red
Red		Blue

The colour names in this table are shown in various cell entry layouts. These layouts demonstrate the various possibilities of CALS tables and of the extensions to CALS tables.

[a] White is obtained by applying an equal mixture of Red, Green and Blue.

Explanation

A table may contain a mixture of `tgroup` elements and `ce:link` elements. The `ce:link` elements stand for table groups which have been captured as an image. In this example the table opens with a `ce:link` element. Note that the image should contain the bottom border of that part of the table if there is any.

The `colspec` elements of the `tgroup` specify the relative widths of the columns. A '*' denotes the unit width. The column widths are expressed as multiples of this unit width. Since decimal values are not supported by any software, the proportional width values should be *integer*. The actual value of the unit width is determined at rendering time. The `colspec` elements also specify names for the columns, to be used to specify column spanning.

The entry in the second row spans three columns, which is indicated by the values of the `namest` and `nameend` attributes, which are the names of the starting and ending columns.

The next row starts with an entry with a left border. Use of the extension element `tb:left-border` is the only way to achieve that.

The same row contains an entry ("High Green") that spans two rows and is framed. The row spanning is indicated by the value of the `morerows` attribute of the `entry` element. Its left border is specified by the value of the `colsep` attribute of the two entries to the left. Its bottom border coincides with the bottom frame of the table, and need not be specified. Its top border would have been specified by the value of the `rowsep` attribute of the entry above were it not the case that the entry above spans different columns. The border of the cell above would span the same three columns, more than the top of the "High Green" cell. Therefore the only option is to use an extended CALS element, the top-border element.

The same row ends with an entry with a right border. Here using the `rowsep` attribute would not be correct, because the `colsep` and `rowsep` attributes on the outer borders of the table are overruled by the `frame` attribute of the `ce:table`. Use of the extension element `tb:right-border` is the only valid way to specify this right border.

In the last row the second entry is omitted, because its space is occupied by the entry from the row above. The table processing software should know this and move the entry count forward by 1.

Example 4

XML

```
<ce:table colsep="0" rowsep="0" id="tbl3" frame="topbot">
  <ce:label>Table 3</ce:label>
  <ce:caption id="c74">
    <ce:simple-para id="sp23">Efficacy of Clinical Staging</ce:simple-para>
  </ce:caption>
  <tgroup cols="5">
    <colspec colname="col1"/>
    <colspec colname="col2"/>
    <colspec colname="col3"/>
    <colspec colname="col4"/>
    <colspec colname="col5"/>
    <thead>
      <row>
        <entry morerows="1" align="center" rowsep="1">Stage</entry>
        <entry namest="col2" nameend="col3" align="center"
          rowsep="1">Positive Predictive Value</entry>
```

```
        <entry namest="col4" nameend="col5" align="center"
          rowsep="1">Sensitivity</entry>
      </row>
      <row rowsep="1">
        <entry align="center">FDG-PET/CT (%)</entry>
        <entry align="center">CT (%)</entry>
        <entry align="center">FDG-PET/CT (%)</entry>
        <entry align="center">CT (%)</entry>
      </row>
    </thead>
    <tbody valign="top">
      <row>
        <entry>I</entry>
        <entry>58</entry>
        <entry>62</entry>
        <entry>44</entry>
        <entry>49</entry>
      </row>
    </tbody>
  </tgroup>
</ce:table>
```

Presentation

Table 3
Efficacy of Clinical Staging

	Positive Predictive Value		Sensitivity	
Stage	FDG-PET/CT (%)	CT (%)	FDG-PET/CT (%)	CT (%)
I	58	62	44	49

Explanation

The first row of the table head has two entries which each span two columns. Both entries have a rowsep value of 1, that is, they have a row separator at their bottom. Normally, because the entries are in adjacent columns, their row separators would join to create a rule from column 2 up to column 5.

Because Elsevier tables do use spanning lines or bridge lines and do not use row separators in the table head, we use the row separators in the interior of the table head to create bridge lines. Therefore we define that the rowseps of different cells within the interior of the head never touch.

As a consequence, the row separators of the second and third entry in the first row of the table head do *not* touch each other. This is similar to the definition in DTD 4.x.

The definition does not extend to the rule at the bottom of the table head. The row separators of the entry with the text ‘Stage’ and of the four entries in the second row of the table head join to form a continuous rule across the table.

The value of the `rowsep` attribute on the `row` element sets the default value of the `rowsep` attribute for the `entry` elements in the row. Setting `<row rowsep="1">` is equivalent to setting `<entry rowsep="1">` for all entries in that row. Therefore the following tagging produces the same result as the above example.

XML

```
...
```

```
<thead>
  <row rowsep="1">
    <entry morerows="1" align="center">Stage</entry>
    <entry namest="col2" nameend="col3"
      align="center">Positive Predictive Value</entry>
    <entry namest="col4" nameend="col5"
      align="center">Sensitivity</entry>
  </row>
  <row rowsep="1">
    <entry align="center">FDG-PET/CT (%)</entry>
    <entry align="center">CT (%)</entry>
    <entry align="center">FDG-PET/CT (%)</entry>
    <entry align="center">CT (%)</entry>
  </row>
</thead>
...
```

CALS table elements

This section lists the table elements from the OASIS Exchange Table Model DTD [15]. For precise descriptions about these elements and their extensive attribute lists, we refer to the literature about the CALS tables, e.g. [1].

These elements have no namespace prefix. They belong to the CALS namespace, `http://www.elsevier.com/xml/common/cals/dtd`, due to the `xmlns` attribute of the element `ce:table`. The element `entry` is an exception: it belongs to the common element pool's namespace.

colspec

Model

```
<!ELEMENT  colspec              EMPTY>
<!ATTLIST  colspec
           colnum               NMTOKEN          #IMPLIED
           colname              NMTOKEN          #IMPLIED
           colwidth             CDATA            #IMPLIED
           colsep               %yesorno;        #IMPLIED
           rowsep               %yesorno;        #IMPLIED
           align                (left|right|center|justify|char)
                                                 #IMPLIED
           char                 CDATA            #IMPLIED
           charoff              NMTOKEN          #IMPLIED>
```

The element `colspec` defines a column specification, in which each column can be given a name, width, alignment, and a right-hand separator. The element `tb:colspec` is provided as an alternative, which then results in an extended CALS table.

entry

Model

```
<!ELEMENT  entry                ( %cell.data; )>
<!ATTLIST  entry
           colname              NMTOKEN          #IMPLIED
           namest               NMTOKEN          #IMPLIED
           nameend              NMTOKEN          #IMPLIED
           morerows             NMTOKEN          #IMPLIED
           colsep               %yesorno;        #IMPLIED
           rowsep               %yesorno;        #IMPLIED
           align                (left|right|center|justify|char)
                                                 #IMPLIED
           char                 CDATA            #IMPLIED
           charoff              NMTOKEN          #IMPLIED
           valign               (top|middle|bottom)
                                                 #IMPLIED
           id                   ID               #IMPLIED
           role                 CDATA            #IMPLIED
           xmlns                CDATA            #FIXED %ESCE.xmlns; >
```

The element `entry` defines a cell in the table, which may or may not span more than one row or column. The default alignment and separator below and to the right, defined in

the column specification, on the row or on the table, can be overridden. The content of this element is %cell.data;, i.e. contains elements from the common element pool, as well as the border elements tb:bottom-border, tb:left-border, tb:right-border, tb:top-border, and the vertical mark tb:alignmark. When these elements from the extended table namespace are present in the cell, the table becomes an extended CALS table.

The role value rowhead can be used to indicate that a cell is a rowhead. For instance, the XML for the table

	In the 1st Grade	In the 2nd Grade
# of Boys	11	7
# of Girls	10	12

could contain <entry role="rowhead"># of Boys</entry>.

entry is the only element in the namespace of the common element pool that has no prefix.

Version history

In CEP 1.1.2 element ce:br was added to %cell.data;. In CEP 1.5.0 entity %math; was added to %cell.data;.

row

Model

```
<!ELEMENT  row                ( entry+ )>
<!ATTLIST  row
           rowsep             %yesorno;          #IMPLIED
           valign             (top|middle|bottom)
                                                 #IMPLIED
           id                 ID                 #IMPLIED
           role               CDATA              #IMPLIED>
```

The element row defines a row in the table, consisting of table entries. It has attributes to define the alignment and separator below the row.

To be able to indicate that rows are to be treated differently, either as headings or subheadings, the following values for attribute role are defined: thead1, thead2, thead3, tcolhead1, tcolhead2.

tbody

Model

```
<!ELEMENT  tbody              ( row+ )>
<!ATTLIST  tbody
           valign             (top|middle|bottom)
                                                 #IMPLIED>
```

The element tbody contains the body of the table, i.e. the rectangular structure of rows and columns.

tgroup

Model

```
<!ELEMENT  tgroup              ( ( colspec | tb:colspec )* , thead?,
                                 tbody )>
<!ATTLIST  tgroup
           cols                NMTOKEN           #REQUIRED
           colsep              %yesorno;         #IMPLIED
           rowsep              %yesorno;         #IMPLIED
           align               (left|right|center|justify|char)
                                                 #IMPLIED
           altimg              CDATA             #IMPLIED>
```

The element tgroup contains the structure of the table: a column specification, an optional head and a body. Note that a table foot, while present in some CALS table models, is not available in the OASIS Exchange Table Model DTD.

The tgroup has an additional altimg attribute. This attribute contains a reference to a graphic file containing an image of the tgroup. It is present for extended CALS tables. Such a graphic representation of the table is called a *strip-in*. See the section on strip-in images (p. 23).

thead

Model

```
<!ELEMENT  thead               ( row+ )>
<!ATTLIST  thead
           valign              (top|middle|bottom)
                                                 #IMPLIED>
```

The element thead contains the header rows of the table. These rows are repeated when the table is split over several pages. Prior to DTD 5.0, header rows were defined as “stubs”.

tb:alignmark

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  tb:alignmark          EMPTY>
```

Description

The element tb:alignmark is a vertical mark. It can be used to obtain complicated alignments within table cells. However, using this element takes the table outside of the scope of CALS tables.

Usage

A vertical alignment mark, tb:alignmark, is an empty element which can occur within a table cell, entry. If any border elements are present within the cell, they must precede the tb:alignmark.

If the alignment of a column is not specified by a tb:colspec element, then the vertical alignment mark is forbidden in the cells of that column. Otherwise, the ith tb:alignmark of the nth cell in a row, must be left-aligned with the ith tb:alignmark in all nth cells of the rows in the same tbody. This rule is independent of the span of a cell, i.e., in a spanned cell it is only possible to align with alignment points in the leftmost spanned column.

In a column the numbers of tb:alignmarks per cell need not be equal. The rules still apply when this is the case.

XML

```
<tgroup cols="1">
  <tb:colspec/>
    <tbody>
      <row>
        <entry>a<tb:alignmark/>bcd<tb:alignmark/>e</entry>
      </row>
      <row>
        <entry>pq<tb:alignmark/>r<tb:alignmark/>stu</entry>
      </row>
    </tbody>
</tgroup>
```

Presentation

a bcde
pqr stu

See also

tb:colspec. More details are given in the examples section (p. 538).

tb:bottom-border

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  tb:bottom-border      EMPTY>
<!ATTLIST  tb:bottom-border
           type                  %hline;          'bar'
           style                 %style;          's'>
```

Description

The element tb:bottom-border, when present in a cell, provides the cell with a bottom border.

Usage

tb:bottom-border is an empty element, which may appear within a cell entry of a table. When it is present in a cell, it provides the cell with a bottom border.

Two attributes, type (default bar) and style (default: single, s), determine what the border will look like. See Tables 7, 9 and 10 (pp. 555–556) for the allowed combinations of values of these attributes.

Border elements must come before any other content of the entry.

See also

More details can be found in the examples section (p. 538).

tb:colspec

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  tb:colspec          EMPTY>
<!ATTLIST  tb:colspec
           colnum              NMTOKEN          #IMPLIED
           colname             NMTOKEN          #IMPLIED
           colwidth            CDATA            #IMPLIED
           colsep              %yesorno;        #IMPLIED
           rowsep              %yesorno;        #IMPLIED
           align               ( mark )         #FIXED 'mark'>
```

Description

A tb:colspec element must be used instead of a colspec element to specify a column that uses alignment on tb:alignmark elements.

Usage

A tb:colspec element is used in the same way as a colspec element, except that its align attribute has the fixed value mark.

Version history

Prior to DTD 5.0, vertical alignment along marks was specified with the value vmk of the ca attribute of the c element.

See also

For an example see tb:alignmark. More details can be found in the examples section (p. 538).

tb:left-border

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  tb:left-border       EMPTY>
<!ATTLIST  tb:left-border
           type                 %vline;          'vb'
           style                %style;          's'>
```

Description

The element `tb:left-border`, when present in a cell, provides the cell with a left border.

Usage

`tb:left-border` is an empty element, which may appear within a cell `entry` of a table. When it is present in a cell, it provides the cell with a left border.

Two attributes, `type` (default `vb`) and `style` (default: single, `s`), determine what the border will look like. See Tables 8, 9 and 10 (pp. 555–556) for the allowed combinations of values of these attributes.

Border elements must come before any other content of the `entry`.

See also

More details can be found in the examples section (p. 538).

tb:right-border

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  tb:right-border       EMPTY>
<!ATTLIST  tb:right-border
           type                  %vline;          'vb'
           style                 %style;          's'>
```

Description

The element tb:right-border, when present in a cell, provides the cell with a right border.

Usage

tb:right-border is an empty element, which may appear within a cell entry of a table or an array. When it is present in a cell, it provides the cell with a right border.

Two attributes, type (default vb) and style (default: single, s), determine what the border will look like. See Tables 8, 9 and 10 (pp. 555–556) for the allowed combinations of values of these attributes.

Border elements must come before any other content of the entry.

See also

More details can be found in the examples section (p. 538).

tb:top-border

Declaration

Model (CEPs 1.1.0–1.6.0)

```
<!ELEMENT  tb:top-border         EMPTY>
<!ATTLIST  tb:top-border
           type                  %hline;          'bar'
           style                 %style;          's'>
```

Description

The element tb:top-border, when present in a cell, provides the cell with a top border.

Usage

tb:top-border is an empty element, which may appear within a cell entry of a table or an array. When it is present in a cell, it provides the cell with a top border.

Two attributes, type (default bar) and style (default: single, s), determine what the border will look like. See Tables 7, 9 and 10 (pp. 555–556) for the allowed combinations of values of these attributes.

Border elements must come before any other content of the entry.

See also

More details can be found in the examples section (p. 538).

Ornament types and styles

Several elements have `type` and `style` attributes, defining an *ornament*. The attribute values and the allowed combinations are described in this section.

Table 7: Valid values (`%hline;`) of the `type` attribute of elements that specify a horizontal line or other ornament. These occur in `tb:bottom-border` and `tb:top-border`.

Attribute value	Symbol	Attribute value	Symbol
`bar`	—	`circ`	⏜
`tcub`	⏞	`tilde`	⏝
`bcub`	⏟	`rarr`	⟶
`tsqb`	⎴	`larr`	⟵
`bsqb`	⎵	`harr`	⟷
`tpar`	⏜	`lharu`	↼
`bpar`	⏝	`rharu`	⇀

Table 8: Legal values (`%vline;`) of the `type` attribute of elements that specify a vertical line or other ornament. These may occur in `tb:left-border` and `tb:right-border`.

Attribute value	Symbol	Attribute value	Symbol
`lpar`	(	`bsol`	\
`rpar`	)	`lceil`	⌈
`lsqb`	[	`rceil`	⌉
`rsqb`	]	`lfloor`	⌊
`lcub`	{	`rfloor`	⌋
`rcub`	}	`dharr`	⇃
`vb`	|	`uharr`	↾
`lang`	⟨	`darr`	↓
`rang`	⟩	`uarr`	↑
`sol`	/	`varr`	↕

Table 9: Values (`%style;`) of the `style` attribute. It may occur in `tb:bottom-border`, `tb:left-border`, `tb:right-border` and `tb:top-border`.

Value	Meaning	Example
`s`	single	|
`d`	double	||
`t`	triple	|||
`da`	dashed	⋮
`dot`	dotted	⋮
`b`	bold	▌
`bl`	blank	space between
`n`	none	no space between

Table 10: Valid combinations of `type` (`%hline;`, `%vline;`) and `style` (`%style;`) attributes.

type		style							
		s	d	t	da	dot	b	bl	n
lpar	(	×	×				×	×	
rpar	)	×	×				×	×	
lsqb	[	×	×				×	×	
rsqb	]	×	×				×	×	
vb	|	×	×	×	×	×	×	×	×
lang	⟨	×	×				×	×	
rang	⟩	×	×				×	×	
bar	—	×	×	×	×	×	×	×	×

All other horizontal and vertical `type`s may only occur in combination with `s`, `b` or `bl`.

Appendix A

How to read the DTD

This appendix gives a guideline about how to read the element models in this documentation.

Element definitions

An element definition typically looks like this:

```
<!ELEMENT     article     ( item-info, ce:floats?,
                            head, body?, tail? )>
```

Here `article` is the element which is defined.

The second part of the definition is the declaration of the allowed content, i.e. the elements which appear within the element. It states that `article` always starts with `item-info`, and is then followed by a number of elements, some of which are optional.

The *quantifiers*, positioned after the name of the element, are listed below. These indicate how many occurrences of the element are allowed.

Symbol	Meaning
	occurs precisely once
?	optional: 0 or 1 occurrence
*	0 or more occurrences
+	1 or more occurrences

The following *connectives* indicate how the elements may be combined.

Symbol	Meaning
,	follows
|	or

Some elements are not allowed to have content. They are called *empty* elements and are declared as follows:

```
<!ELEMENT     ce:link     EMPTY>
```

Element `ce:link` can occur as follows, `<ce:link locator="gr2" ...></ce:link>`, although the abbreviated version is strongly preferred, `<ce:link locator="gr2" .../>`.

XML parse tree

When following the element definitions, a *parse tree* is built up, whose root is the top element, and whose leaves are either `EMPTY` elements or `#PCDATA`.

Apart from the regular keyboard characters #PCDATA can contain all the Unicode characters (e.g. ô or Ω) plus all the general entities declared in the DTDs. In our DTDs, these are character entities that came with the MathML DTD (e.g. &agr;, a small alpha) and glyph entities that are declared in the file ESextra.ent. This file is "included" in the DTD by means of an XML file inclusion.

For the glyph entities see the section Elsevier's additional glyphs (p. 19).

Parameter entities

Some element or attribute definitions contain a *parameter entity* such as %font-change;. These act as abbreviations. Their definition can be looked up elsewhere in the DTD:

```
<!ENTITY % font-change    "ce:bold|ce:italic|ce:monospace
                           |ce:sans-serif|ce:small-caps" >
```

The bit between quotes should be substituted for the parameter entity. Parameter entities can themselves contain parameter entities. If one for instance examines element ce:section-title and expands the entities, one can conclude that it can contain ce:inline-figure in its content.

For more information see the section Parameter entities (p. 187).

The model of element ce:figure uses all the quantifiers and connectives mentioned above as well as a parameter entity:

```
<!ELEMENT    ce:figure    ( ce:label?, ce:caption*, ce:source?,
                            ( %copyright; )?,
                            ( ce:link | ce:figure )+ )>
```

This means that the content of element ce:figure consists of an optional ce:label, optional ce:captions, an optional ce:source, an optional ce:copyright, an optional ce:copyright-line and a list of (at least one) ce:link or ce:figure elements.

Attribute definitions

An attribute definition typically looks like this:

```
<!ATTLIST    ce:date-received
             day       NMTOKEN    #IMPLIED
             month     NMTOKEN    #REQUIRED
             year      NMTOKEN    #REQUIRED>
```

This means that the element ce:date-received possesses three attributes, day, month and year. Attribute day is optional, the other two attributes are mandatory. All three attributes are numbers.

The middle column defines the type of attribute. The following types are in existence.

Type	Meaning
CDATA	ASCII text
ENTITY	external entity declared at start of document
ENTITIES	one or more ENTITYs
ID	XML ID, string of digits, letters, ., -, starts with a letter
IDREF	ID declared elsewhere in the document
IDREFS	one or more IDREFs
NMTOKEN	string of digits, letters, . and -
NMTOKENS	one or more NMTOKENs
list of values	only one of these values is allowed

Type ENTITIES is not used in our DTDs, while types IDREFS and NMTOKENS are only used in our $4.x$ DTDs.

Here is an example of a list of values. Note that the parameter entity %e-address-type; was expanded.

```
<!ELEMENT     ce:e-address     ( %text.data; )* >
<!ATTLIST     ce:e-address
              type     (email|url)     "email">
```

The right-hand column can contain the following.

	Meaning
#IMPLIED	attribute is optional
#REQUIRED	attribute is mandatory
value	if omitted, this is the default value
#FIXED value	the only possible value

XPath

XPath is a language for addressing parts of an XML document. Here are three examples of the use of XPath that have started to appear in communications.

The title of a ce:glossary:

```
ce:glossary/ce:section-title
```

The title of a ce:glossary in a book glossary:

```
glossary/ce:glossary/ce:section-title
```

Attribute role of element ce:section:

```
ce:section/@role
```

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