FACTSET 〉 SEE THE ADVANTAGE

IRN NOTES API
DEVELOPER'S MANUAL AND REFERENCE

Document Version 1.6
March 2024

NOTES API – VERSION 1.0

Contents

1. Internal Research Notes API

1.1. Overview

APIs complement the current Internal Research Notes (IRN) offerings and facilitates integration of data from existing workflows into IRN and the FactSet workstation. IRN APIs provide a channel to interact with FactSet's Research Management Solution Suite to contribute Notes and Meetings data.

1.2. Notes Contribution API

Leverage the Notes API to allow notes created in parallel systems to integrate with the larger research workflow across FactSet.

2. Authentication

This API is hosted under https://api.factset.com. Authentication is handled using API Keys and authorization is handled using FactSet's in-house subscriptions product. You can find more information about using API Keys at https://developer.factset.com/authentication.

HTTP request and response header names should be considered case insensitive as per the HTTP Standard. Please do not rely on case sensitive matching of headers in your code.

3. Rate Limiting

Rate limiting is used to control the amount of incoming and outgoing traffic to or from a network. IRN API also implements limits on the number of requests that a client can make in a given window of time.

The limits and remaining requests can be read from the following response headers in every request's response

RateLimit-Limit: 10 (this indicates total requests allowed in this second)
RateLimit-Remaining: 7 (this indicates total request remaining)
RateLimit-Reset: 4(this indicates remaining time for limits to reset)

4. Common Use Cases

4.1. Update Compliance System Intraday

Query the database to retrieve a list of covered securities to add to a trading blacklist in a parallel compliance system. This process utilizes the GetNotes Api endpoint as follows:

1. The client-built process runs at four intervals throughout the day.
2. At the start of each run, the process retrieves the date and time of its last run from a central location.
3. The process generates a new query object to the GetNotes using that date and time value as the modifiedSince query parameter value.
4. The process executes that query and streams the results into a Json parser utility.
5. For each record in the result set, the ID value is extracted via the parser utility. The process executes a call into the compliance system, passing along the CUSIP to be added to the blacklist if it does not already exist.
6. The process updates the central location with its latest run time as the timestamp of when the query was executed (step 3)

4.2. Populate Intranet with RMS Data

Use real-time queries to IRN API to populate an internal portal or intranet with recent research on a company to complement additional internal information. This process utilizes the **GetNotes** endpoint as follows:

1. A user logs into the internal portal and searches for MKS-GB
2. The portal generates a new query object to the GetNotes Service with the following argument values:
    a. Identifier: MKS-GB
    b. Start Date: Five years ago
    c. End Date: Today

d. Limit: Up to 1000 records in a single request

3. The portal executes that query and streams the results into a parser utility

4. The portal extracts the date, title, subjectId, authorId, contributorId and any available attachmentIds values via the parser utility for the five most recent records.

5. For each recordSummary with at least one attachmentId present, generate a query object to hit GetAttachments, end point which returns filename and can be mapped to the notes.

6. The process generates a new query object to Configuration APIs to fetch details of Subjects, Authors and Custom Fields. This information will be used to map the IDs with the subject name, author name and custom field name.

7. The portal displays these data points in a table format, with the Attachment FileName values formatted as clickable hyperlinks.

8. If the user clicks on an Attachment FileName, the portal generates a new query object to the Attachment Service using the corresponding AttachmentID as the attachmentId argument value. Executing that query should download the desired file and allow the user to save or open it.

4.3. Business Continuity and Archive

Archive to a backup location to satisfy business continuity requirements. This process utilizes the **GetNotes**, **GetAttachments**, **GetEvents** and **GetIdentifiers** endpoint as follows:

1. The client-built job runs at a designated time after the close of the trading day.

2. Make request to Configuration API to fetch details of Subjects, Authors and Custom Fields. This information may be saved on client end for easy access and could be updated to take into effect any configuration changes made to their IRN database.

3. At the start of each run, the process retrieves the date and time of its last run from a central location.

4. The process generates a new query object to the GetNotes Service using that date and time value as the modifiedSince parameter value.

5. The process executes that query and streams the results into a parser utility.

6. For each recordSummary, the parser retrieves all record contents, NoteID and references to any Attachments. Extended text values are not included in this response.

7. For each recordSummary, the process generates a new query url to request GetNote endpoint using the id as the query parameter value.

8. For each recordSummary, the process generates a new query url to request GetAttachments endpoint using the NoteId as the query parameter value.

9. For each attachment, process generates new urls to request GetAttachment endpoint with corresponding noteId, attachmentId as query parameter values. This should download the attachments and the process can append the content to the record object

10. For each recordSummary, the process generates a new query url to request GetEvents endpoint using the NoteId as the query parameter value.

11. For each Event, process generates new urls to request GetEvent endpoint with corresponding noteID, recordEventId as query parameter values.

12. For each recordSummary, the process generates a new query url to request GetIdentifiers endpoint using the comma separated list of Primary and Related Symbol Identifiers as the query parameter values.

13. When all Note contents have been retrieved, the process can save the record to the backup archive before moving on to the next record.

14. The process updates the central location with its latest run time as the timestamp of when the query was executed (step 3)

5. Test and Production Environments

Test: Requests made from https://developer.factset.com/api-catalog/ will be redirected to https://api-sandbox.factset.com/research/irn/v1/ which points to an isolated Sandbox environment which will be available for clients to use as a development area on an ongoing basis. Clients will need to use POST requests before GET to have sample data to experiment with create and extract workflows.

Production: Use https://api.factset.com/research/irn/v1 to access IRN production database

6. Dates in IRN

6.1. Created Date

This indicates the date and time in UTC when the record was added to the database.

6.2. Note Date

This indicates the date that the user indicated when creating the record in the application. In many cases, this date will be identical to the Created Date. However, it is common use case for authors to contribute records on past dates, if they are filing notes upon return from a multi-day conference, for example. Through this workflow, newly contributed records dated in the past but actually created today will be returned in delta queries immediately thereafter. This will be the date of record in most downstream processes.

6.3. Record Events

The RecordEvent history reflects all the 'events' that have happened to a record. Each record can be submitted for review, published, edited, deleted, etc. For each action, a RecordEvent block is added to the RecordEvents section of

the results. The Date value in each RecordEvent block indicates the date and time that particular event occurred. The very first RecordEvent Date value is expected to be identical to the Created Date described above. The most recent RecordEvent Date value may be useful if the IRN API service is being utilized to flag material research changes in a parallel compliance system. Refer to Get Events and Get Event endpoints for more details.

7. Queries

7.1. Create Note

POST /research/irn/v1/notes

Description

This endpoint creates a note based on user's create permissions and the parameters specified in the request body. A SUCCESS response will contain the unique identifier of the note that was created. This unique identifier should be tracked alongside the original record in order to manage future edit and delete requests.

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.
Content-Type	Standard HTTP header. Value needs to specify application/JSON (i.e., caller needs to specify that the body is in JSON format).
X-IRN-Contributor-Username	Custom header to specify the username of the contributor of the note. The Contributor username must be a FactSet IRN username.
X-IRN-Contributor-Serial	Custom header to specify the serial number of the contributor of the note. The Contributor serial number must be a FactSet IRN serial number.

Request Body

The request body accepts JSON-formatted content with available parameters as follows:

Parameter Name	Data Type	Required	Description	Format

author	Object	Yes	The Author must be a FactSet IRN user; specified via FactSet Username and Serial Number	Should be an object of format {
				"username": "FDS_RMS_TEST",
				"serialNumber": "123456"
				}

title	String	Yes	Note title	String with minimum of 1 character and maximum of 255 characters
identifier	String	Yes	Identifier of primary security for the Note	FactSet recognized Ticker **/** Sedol / CUSIP / ISIN Account Identifier must have a .ACCT suffix

				Non-market identifiers or custom identifiers should be prefixed with IRN_ e.g. IRN_PIPELINES
date	String	Yes	Note date	String representing date in format "yyyy-MM-dd"
subjectId	String	No	Note subject	String representing unique identifier of the Subject
recommendationId	String	No	Note recommendation	String representing unique identifier of the Recommendation
sentimentId	string	No	Note sentiment	String representing unique identifier of the Sentiment
source	string	No	Source field of the note	String
link	string	No	Link field of the note	String

body	Object	No	The content of the note	Object of format {
				"content": "html or plain text"
				}

relatedSymbols	Array	No	Identifiers of related securities for the note	Array of string (Identifiers)
relatedContacts	Array	No	Unique Identifiers of the related contacts of the note	Array of contact unique identifiers

relatedRecords	Object	No	Identifiers of notes and meetings to tag to note	Object of format {
				"noteIds": [
				"string"
				],
				"meetingIds": [
				"string"
				]
				}

customFieldValues	Array	No	Custom fields are defined in RMS Control Panel and custom field data must adhere to the correct data type as configured.
			
			For example, a numeric custom field will accept a value of “100.00”, but a value of “test” will result in a failure response. Similarly, if an IRN custom field is populated via a List, then only the configured list options will be accepted.
				Array of objects of format {
				"code": "string",
				"integerValue": 0
				}

isPersonal	bool	No	Specify if the note is personal	isPersonal: false

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Returns

HTTP Status Code	Description
201	Success. Returns unique identifier of the note created
400	Invalid POST body. Further details in response body.
401	Missing or invalid authentication.

7.2. Get Notes

GET /research/irn/v1/notes

Description

This endpoint retrieves set of notes based on user's read permissions and the parameters specified in the request. The results of the service will contain all the notes that pass the specified filters. Each note will contain basic information as explained below.

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.
X-IRN-Include-Deleted	Custom header. Value can be true or false and determines if deleted records should be included in result set.

Request Query Params

Parameter Name	Data Type	Required	Description	Format
start	String	Yes	Start Date	String of format "yyyy-MM-dd"
end	String	Yes	End Date	String of format "yyyy-MM-dd"
identifiers	Array	No	Identifiers of primary security for the notes	Array of string (Identifiers) FactSet recognized Ticker **/** Sedol / CUSIP / ISIN Account Identifier must have a .ACCT suffix

				Non-market identifiers or custom identifiers should be prefixed with IRN_ e.g. IRN_PIPELINES
authors	Array	No	Set of authors to filter on	Array of author guids
subjects	Array	No	Set of subjects to filter on	Array of subject guids
recommendations	Array	No	Set of recommendations to filter on	Array of recommendation guids
sentiments	Array	No	Set of sentiments to filter on	Array of sentiment guids
limit	Integer	No	Number of notes to be returned for the request. Maximum limit is 1000	Integer
offset	Integer	No	Fetch notes after the offset	Integer
modifiedSince	String	No	Filter on notes which have been modified or created since a particular time	String of format " yyyy-MM-ddTHH:mm:ssZ"
states	Array	No	Set of note states to filter on – Personal, Published	Array of string
filterOnRelatedSymbols	Boolean	No	Include notes whose related symbols match the identifier filter	Boolean

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Response Body

Property Name	Description
id	Unique Identifier of the note
date	Note date; YYYY-MM-DD format
createdAt	Created timestamp in UTC; yyyy-MM-ddTHH:mm:ssZ format
authorId	Unique identifier of the author
contributorId	Unique identifier of the contributor
title	Title of the note
identifier	The primary Identifier of the note
subjectId	Unique identifier of the subject
isPersonal	Values: True when note is personal and False when note is published
approvalStatus	Approval status of the note

attachmentIds	List of all the attachment unique identifiers tagged to the note
relatedSymbols	Related symbols tagged to the note
recommendationId	Unique identifier of the recommendation
sentimentId	Unique identifier of the sentiment
customFields	An object that represents the custom field values assigned to the note.

Returns

HTTP Status Code	Description
200	Success. Returns Notes summaries
400	Invalid request. Further details in response body.
401	Missing or invalid authentication.

7.3. Get Note

GET /research/irn/v1/notes/{noteId}

Description

This endpoint retrieves details of the note based on user's read permissions and the noteId specified in the request. The results of the service will contain details of the note explained below.

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.

Request Query Params

Parameter Name	Data Type	Required	Description	Format
noteId	String	Yes	Unique Identifier of the note	String

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Response Body

Property Name	Description
id	Unique Identifier of the note
date	Note date; YYYY-MM-DD format
createdAt	Created timestamp in UTC; YYYY-MM-DD HH:MM:SS format
authorId	Unique Identifier of the author
contributorId	Unique identifier of the contributor
title	Note Title
identifier	Primary identifier of the note
subjectId	Unique Identifier of the subject
relatedSymbols	Related symbols tagged to a note
recommendationId	Unique Identifier of the recommendation
sentimentId	Unique Identifier of the sentiment
source	Source field of the note
link	Link field of the note
body	Html content of note in base64 format
isPersonal	Specifies if the note is personal
approvalStatus	Approval status of the note
averageRating	Average of the ratings given to a note
relatedRecords	Object of type {NodeIds: List<Guid>, MeetingIds: List<Guid>} List of Unique Identifiers of records tagged to a note
relatedContacts	List of unique identifiers of contacts tagged to a note
customFields	An object that represents the custom field values assigned to the note.

Returns

HTTP Status Code	Description
200	Success. Returns Note details
400	Invalid request. Further details in response body.
401	Missing or invalid authentication.

7.4. Editing Note

7.4.1. Edit note

PUT /research/irn/v1/notes/{noteId}

Description

Replace an existing note with a new data. Utilize this endpoint when you want to update the entire note, providing all necessary data as the request will replace the current note attributes with what is provided.

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.
Content-Type	Standard HTTP header. Value needs to specify application/JSON (i.e., caller needs to specify that the body is in JSON format).

Request Body

The request body accepts JSON-formatted content with available parameters as follows:

Parameter Name	Data Type	Required	Description	Format

Author	Object	Yes	The Author must be a FactSet IRN user; specified via FactSet Username and Serial Number	Should be an object of format {
				"username": "FDS_RMS_TEST",
				"serialNumber": "123456"
				}

Title	String	Yes	The title of the Note	String with minimum of 1 character and maximum of 255 characters
Identifier	String	Yes	Identifier of primary security for the Note	FactSet recognized Ticker **/** Sedol / CUSIP / ISIN Account Identifier must have a .ACCT suffix Non-market identifiers or custom identifiers should be prefixed with IRN_ e.g. IRN_PIPELINES
Date	String	Yes	Date of the note	String respresenting date in format "yyyy-MM-dd"
subjectId	String	Yes	Subject of the note	String representing unique identifier of the Subject
recommendationId	String	Yes	Recommendation of the note	String representing unique identifier of the Recommendation
sentimentId	string	Yes	Sentiment of the note	String representing unique identifier of the Sentiment
Source	string	No	Source field of the note	String
Link	string	No	Link field of the note	String

body	Object	No	Agenda items or context of the Note	Object of format {
				"content": "html or plain text"
				}

relatedSymbols	Array	No	Identifiers of related securities for the note	Array of string (Identifiers)

relatedRecords	Object	No	Identifiers of notes and meetings to tag to note	Object of format {
				"noteIds": [
				"string"
				],
				"meetingIds": [
				"string"
				]
				}

relatedContacts	Array	No	Identifiers of the related contacts of the Note	Array of contact unique identifiers

customFieldValues	Array	No	Custom fields are defined in RMS Control Panel and custom field data must adhere to the correct data type as configured.
			
			For example, a numeric custom field will accept a value of “100.00”, but a value of “test” will result in a failure response. Similarly, if an IRN custom field is populated via a List, then only the configured list options will be accepted.
				Array of objects of format {
				"code": "string",
				"integerValue": 0
				}

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Returns

HTTP Status Code	Description
200	Success.
400	Invalid PUT body. Further details in response body.
401	Missing or invalid authentication.

7.4.2.Patch note

PATCH /research/irn/v1/notes/{noteId}

Description

Update specific fields of a note. Use this endpoint to modify only certain attributes of a note without affecting other properties that aren't included in the request payload.

Request and Response Content

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.
Content-Type	Standard HTTP header. Value needs to specify application/JSON (i.e., caller needs to specify that the body is in JSON format).

Request Query Params

The request body accepts JSON-formatted content with available parameters as follows:

Parameter Name	Data Type	Required	Description	Format
noteId	string	Yes	Unique Identifier of the note	Should be a non-empty string

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Returns

HTTP Status Code	Description
200	Successfully partially edited the note
400	Invalid Patch body. Further details in response body.
404	Note not found

7.5. Delete note

DELETE /research/irn/v1/notes/{noteid}

Description

This endpoint deletes a note based on user delete permissions.

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

7.6. Attachment Handling

Each Internal Research Note may contain up to 10 file attachments. Each file may be up to 50 MB in size, with a cumulative total size of 50 MB. Accepted file attachment types are as follows:

bmp, csv, doc, docm, docx, dot, dotm, dotx, eml, gif, htm, html, jpg, jpeg, lsb, ltx, mht, mhtml, mp3, msg, odc, pdf, png, pot, potm, potx, pps, ppsm, ppsx, ppt, pptm, pptx, rtf, tif, tiff, txt, uxdc, wav, xla, xlam, xlm, xls, xlsb, xlsm, xlsx, xlt, xltm, xlw, xltx, xml, xml-attach, emz, mso, m4a, ics

7.6.1. Add Attachment

POST /research/irn/v1/notes/{noteId}/attachments

Description

This endpoint adds an attachment to already existing note. Attachments are posted as multipart/form-data. Any user with edit permissions on the note can create an attachment for that note. The name of multipart/form-data parameter that contains attachment must be *file*

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.
Content-Type	Standard HTTP header. Value needs to specify application/multipart-form-data

Request Query Params

The request body accepts JSON-formatted content with available parameters as follows:

Parameter Name	Data Type	Required	Description	Format
noteId	string	Yes	Unique Identifier of the note	Should be a non-empty string

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Returns

HTTP Status Code	Description
201	Success. Returns unique identifier of the note created
400	Invalid request body. Further details in response body.
401	Missing or invalid authentication.
403	User doesn't have edit permissions on the note.
413	The request exceeded maximum upload limit

7.6.2.Get Attachments

GET /research/irn/v1/notes/{noteId}/attachments

Description

This endpoint gets list of attachments of a note based on user permissions. Any user with read permissions on the note can view all its attachments.

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.
Content-Type	Standard HTTP header. Value needs to specify application/JSON (i.e., caller needs to specify that the body is in JSON format).

Request Query Params

The request body accepts JSON-formatted content with available parameters as follows:

Parameter Name	Data Type	Required	Description	Format

noteId	string	Yes	Unique Identifier of the note	Should be a non-empty string

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Response Body

Property Name	Description
id	Unique Identifier of attachment
fileName	Name of the attachment file

Returns

HTTP Status Code	Description
200	Success. Returns list of attachments
401	Missing or invalid authentication.
403	User doesn't have permissions to view the note
404	Note not found

7.6.3.Delete Attachment

DELETE /research/irn/v1/notes/{noteId}/attachments/{attachmentId}

Description

This endpoint deletes an attachment of a note based on user permissions. Any user with edit permissions on the note can delete its attachment.

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.
Content-Type	Standard HTTP header. Value needs to specify application/JSON (i.e., caller needs to specify that the body is in JSON format).

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Returns

HTTP Status Code	Description
200	Success.
401	Missing or invalid authentication.
403	User doesn't have permissions to delete the note
404	Note or attachment not found

7.6.4.Download Attachment

GET /research/irn/v1/notes/{noteId}/attachments/{attachmentId}/download

Description

This endpoint downloads an attachment of a note based on user read permissions. Any user with read permissions on the note can download its attachment.

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.
Content-Type	Standard HTTP header. Value needs to specify application/JSON (i.e., caller needs to specify that the body is in JSON format).

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Returns

HTTP Status Code	Description
200	Success.
401	Missing or invalid authentication.
403	User doesn't have permissions to view the note
404	Note or attachment not found

7.7. Get Events

GET /research/irn/v1/notes/{noteId}/events

Description

This endpoint retrieves event history associated with the note. The results of the service will contain all basic details of the history in reverse chronological order.

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.

Request Query Params

Parameter Name	Data Type	Required	Description	Format
noteId	String	Yes	Unique Identifier of the Note	String

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Response Body

Property Name	Description
id	Unique Identifier for each change event of the note
type	Define the type of event published, edited etc.
createdAt	Created timestamp; YYYY-MM-DDTHH:mm:ssZ

Returns

HTTP Status Code	Description
200	Success. Returns event history of note
400	Invalid request. Further details in response body.
401	Missing or invalid authentication.
403	User doesn't have read permissions on the note

7.8. Get Event

GET /research/irn/v1/notes/{noteId}/events/{recordeventId}

Description

This endpoint retrieves details of an edit event associated with the note. The results of the service will contain all details of the change made to the note.

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.

Request Query Params

Parameter Name	Data Type	Required	Description	Format
noteId	String	Yes	Unique Identifier of the Note	String
recordeventId	String	Yes	Unique Identifier of the Event	String

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Response Body

Property Name	Description
type	Define the type of event published, edited etc.
createdAt	Created timestamp; YYYY-MM-DDTHH:MM:SSZ
user	User who made the change
comment	Comment associated with approval status change of the note

changelist	List of objects of type { "field": "Date", "operation": "Change", "oldValue": "06 Jan '20", "newValue": "07 Jan '20", "oldList": null, "newList": null } which include details like field that was edit and the changes made. oldValue, newValue compromise edit for text/single value fields. oldList,newList compromise edit for multiselect value fields.

Returns

HTTP Status Code	Description
200	Success.
400	Invalid request. Further details in response body.
401	Missing or invalid authentication.
403	User doesn't have read permissions on the note

7.9. All Events

7.9.1. Get all Events

GET /research/irn/v1/events

Description

This endpoint retrieves all notes and meetings for associated event type in a given time range. The results of the service will contain details of the event like id of event, id of the meeting/note affected, type of the event (published, edited etc) and finally the time of the event.

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.

Request Query Params

Parameter Name	Data Type	Required	Description	Format

startDate	String	Yes	Datetime indicating start of date range to fetch events occurred in	String of format “yyyy-MM-ddThh:mm:ssZ”
endDate	String	No	Datetime indicating end of date range to fetch events occurred in	String of format “yyyy-MM-ddThh:mm:ssZ”
types	Array[string]	No	Type of the event used to filter the results	Accepts string one of SUBMITTED_FOR_APPROVAL, APPROVED, DENIED, PUBLISHED, DELETED, BATCH_LOADED, PERSONAL_CREATED, PERSONAL_EDITED, INSTRUMENT_CHANGE, MERGE_CONTACT, UNDELETED, LINK_SYMBOL

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Response Body

Property Name	Description
id	Unique Identifier for each change event
type	Define the type of event published, edited etc.
noteId	Unique Identifier of the note affected (null if not applicable)
meetingId	Unique Identifier of the meeting affected (null if not applicable)
createdAt	Created timestamp; YYYY-MM-DDTHH:mm:ssZ

Returns

HTTP Status Code	Description
200	Success. Returns event history
400	Invalid request. Further details in response body.
401	Missing or invalid authentication.

7.10. Comment Handling

7.10.1. Add Comment

POST /research/irn/v1/notes/{noteId}/comments

Description

This endpoint adds a comment to already existing note. Any user with create permissions on the note can create a comment for that note. A SUCCESS response will contain the unique identifier of the comment added to the note with unique identifier noteId provided in the URL. This unique identifier should be tracked alongside the original record in order to manage future edit and delete requests.

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.
Content-Type	Standard HTTP header. Value needs to specify application/JSON (i.e., caller needs to specify that the body is in JSON format).

Request Body

The request body accepts JSON-formatted content with available parameters as follows:

Parameter Name	Data Type	Required	Description	Format
authorId	string	Yes	The Author of the Comment	String representing unique identifier of the Author
parentCommentId	string	Yes	The parent of this Comment	String representing unique identifier of the Parent Comment
body	string	Yes	The content of the comment	Object of format { "content": "html or plain text" }

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Returns

HTTP Status Code	Description
201	Success. Returns unique identifier of the comment created
400	Invalid POST body. Further details in response body.
401	Missing or invalid authentication.
403	User doesn't have permissions to view the note
404	Note not found

7.10.2. Get Comments

GET /research/irn/v1/notes/{noteId}/comments

Description

This endpoint gets list of comments of a Note based on user permissions. Any user with read permissions on the note can view its comment.

Request and Response Content

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.
Content-Type	Standard HTTP header. Value needs to specify application/JSON (i.e., caller needs to specify that the body is in JSON format).

Request Query Params

The request body accepts JSON-formatted content with available parameters as follows:

Parameter Name	Data Type	Required	Description	Format
noteId	string	Yes	Unique Identifier of the note	Should be a non-empty string

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Response Body

Property Name	Description

id	Unique Identifier of the comment
userId	Unique Identifier of the author
createdAt	Created timestamp; YYYY-MM-DD HH:MM:SS; UTC
subComments	The sub comments of the comment

Returns

HTTP Status Code	Description
200	Success. Returns list of comments
401	Missing or invalid authentication.
403	User doesn't have permissions to view the note
404	Note not found

7.10.3. Get Comment

GET /research/irn/v1/notes/{noteId}/comments/{commentId}

Description

This endpoint gets a comment of a Note based on user permissions. Any user with read permissions on the note can view its comment.

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.
Content-Type	Standard HTTP header. Value needs to specify application/JSON (i.e., caller needs to specify that the body is in JSON format).

Request Query Params

The request body accepts JSON-formatted content with available parameters as follows:

Parameter Name	Data Type	Required	Description	Format
noteId	string	Yes	Unique Identifier of the note	Should be a non-empty string
commentId	String	Yes	Unique Identifier of the comment of note	Should be a non-empty String

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Response Body

Property Name	Description
id	Unique Identifier of comment
authorId	Unique identifier of the author
parentCommentId	Unique identifier of the parent comment
body	The contents of the comment
createdAt	Created timestamp; YYYY-MM-DD HH:MM:SS; UTC
attachments	The attachment summaries of the comment
subComments	The sub comments of the comment

Returns

HTTP Status Code	Description
200	Success. Returns details of the comment
401	Missing or invalid authentication.
403	User doesn't have permissions to view the note
404	Note or Comment not found

7.10.4. Edit Comment

PATCH /research/irn/v1/notes/{noteId}/comments/{commentId}

Description

This endpoint edits a comment of a Note based on user permissions. Any user with edit permissions on the note can edit its comment.

Request and Response Content

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.

Content-Type	Standard HTTP header. Value needs to specify application/JSON (i.e., caller needs to specify that the body is in JSON format).

Request Query Params

The request body accepts JSON-formatted content with available parameters as follows:

Parameter Name	Data Type	Required	Description	Format
noteId	string	Yes	Unique Identifier of the note	Should be a non-empty string
commentId	String	Yes	Unique Identifier of the comment of note	Should be a non-empty String

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Returns

HTTP Status Code	Description
200	Successfully edits the comment
401	Missing or invalid authentication.
403	User doesn't have permissions to edit the comment
404	Note or Comment not found

7.10.5. Delete Comment

DELETE /research/irn/v1/notes/{noteId}/comments/{commentId}

Description

This endpoint deletes a comment of a Note based on user permissions. Any user with delete permissions on the note can delete its comment.

Request and Response Content

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.
Content-Type	Standard HTTP header. Value needs to specify application/JSON (i.e., caller needs to specify that the body is in JSON format).

Request Query Params

The request body accepts JSON-formatted content with available parameters as follows:

Parameter Name	Data Type	Required	Description	Format
noteId	string	Yes	Unique Identifier of the note	Should be a non-empty string
commentId	String	Yes	Unique Identifier of the comment of note	Should be a non-empty String

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Returns

HTTP Status Code	Description
200	Successfully deletes the comment
401	Missing or invalid authentication.
403	User doesn't have permissions to delete the comment
404	Note or Comment not found

7.10.6. Get Comment Attachments

GET /research/irn/v1/notes/{noteId}/comments/{commentId}/attachments

Description

This endpoint lists all the attachments of a comment belonging to a note. Any user with read permissions on the note can view all its comment attachments.

Request and Response Content

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.
Content-Type	Standard HTTP header. Value needs to specify application/JSON (i.e., caller needs to specify that the body is in JSON format).

Request Query Params

The request body accepts JSON-formatted content with available parameters as follows:

Parameter Name	Data Type	Required	Description	Format
noteId	string	Yes	Unique Identifier of the note	Should be a non-empty string
commentId	String	Yes	Unique Identifier of the comment of note	Should be a non-empty String

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Response Body

Property Name	Description
id	Unique Identifier of attachment
fileName	Name of the attachment file
mimeType	Mime Type of the attachment

Returns

HTTP Status Code	Description
200	Gets list of all the attachments
401	Missing or invalid authentication.
403	User doesn't have permissions to view the note
404	Note or Comment not found

7.10.7. Add Comment Attachment

POST /research/irn/v1/notes/{noteId}/comments/{commentId}/attachments

Description

This endpoint adds an attachment to already existing comment of the note. Attachments are posted as multipart/form-data. Any user with read permissions on the note can create an attachment for that note comment.

Note that:

- The name of multipart/form-data parameter that contains attachment must be *file.*
- The maximum attachment size for a single attachment is 50MB.

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.
Content-Type	Standard HTTP header. Value needs to specify application/JSON (i.e., caller needs to specify that the body is in JSON format).

Request Query Params

The request body accepts JSON-formatted content with available parameters as follows:

Parameter Name	Data Type	Required	Description	Format
noteId	string	Yes	Unique Identifier of the note	Should be a non-empty string
commentId	String	Yes	Unique Identifier of the comment of note	Should be a non-empty String

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Returns

HTTP Status Code	Description
200	Gets list of all the attachments

401	Missing or invalid authentication.
403	User doesn't have permissions to view the note
404	Note or Comment not found
413	The request exceeded maximum upload limit

7.10.8. Download Comment Attachment

GET /research/irn/v1/notes/{noteId}/comments/{commentId}/attachments/{attachmentId}/download

Description

This endpoint downloads attachment of a comment belonging to a note. Any user with read permissions on the note can download its comment attachment.

Request and Response Content

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.
Content-Type	Standard HTTP header. Value needs to specify application/JSON (i.e., caller needs to specify that the body is in JSON format).

Request Query Params

The request body accepts JSON-formatted content with available parameters as follows:

Parameter Name	Data Type	Required	Description	Format
noteId	string	Yes	Unique Identifier of the note	Should be a non-empty string
commentId	String	Yes	Unique Identifier of the comment of note	Should be a non-empty String
attachmentId	string	Yes	Unique Identifier of the attachment	Should be a non-empty string

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Returns

HTTP Status Code	Description
200	Gets list of all the attachments
401	Missing or invalid authentication.
403	User doesn't have permissions to view the note
404	Note or Comment or Attachment not found

7.11. Identifier Handling

7.11.1. Get Identifiers

GET /research/irn/v1/identifiers

Description

This endpoint gets identifier details of a given comma separated list of primary or related identifiers.

Request Headers

Header Name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format.
Content-Type	Standard HTTP header. Value needs to specify application/JSON (i.e., caller needs to specify that the body is in JSON format).

Request Query Params

The request body accepts JSON-formatted content with available parameters as follows:

Parameter Name	Data Type	Required	Description	Format
identifiers	string	Yes	Comma separated identifiers	Should be a non-empty string

Response Headers

Header Name	Description
Status	Standard HTTP Status Code.
Location	Standard HTTP header. Contains URL to check status of the request.

Response Body

Property Name	Description

identifierType	Indicates type of identifer i.e Custom or Factset Entity
instrumentMetadata	Following details are returned in case of Factset Entity. **name** Name of the instrument **entityId** FactSet Entity ID **ticker** Unique regional ticker **sedol** Unique SEDOL (Stock Exchange Daily Official List) identifier **cusip** CUSIP (Committee on Uniform Security Identification Procedures) **isin** ISIN (International Securities Identifying Number) identifier
customSymbolDetails	Following details are returned in case of Custom Symbol. **symbolCode** Code assigned by the user at time of creation **symbolName** Name given by the user for this symbol
query	The original passed in identifier

Returns

HTTP Status Code	Description
200	Success. Returns details of the identifier
400	No identifiers provided

8. Examples

Valid Request

Request

```
GET https://api.factset.com/research/irn/v1/notes?startDate=2019-09-01&endDate=2019-10-01
```

Response

HTTP 200 - Success

```
[
  {
    "id": "5ca213f9-c2c5-4265-8e73-145d5b8da549",
    "date": "2019-09-04",
    "createdAt": "2019-09-04 10:53:24Z",
    "authorId": "445614c3-a822-4688-a09d-3a41b304e749",
    "contributorId": "de5614c3-a822-4688-a09d-3a41b304e867",
    "title": "Notes on QQ-GB",
    "identifier": "QQ-GB",
    "subjectId": "8d9bb330-d0f2-46a3-abd3-974cbc899423",
    "isPersonal": false,
    "relatedSymbols": []
  },
  {
    "id": "ce463b3f-49d8-4893-8ee7-75a082044b27",
    "date": "2019-09-19",
    "createdAt": "2019-09-19 10:59:56Z",
    "authorId": "445614c3-a822-4688-a09d-3a41b304e749",
    "contributorId": "de5614c3-a822-4688-a09d-3a41b304e867",
    "title": "Notes with attchment. ",
    "identifier": "FDS-US",
    "subjectId": "8d9bb330-d0f2-46a3-abd3-974cbc899423",
    "isPersonal": false,
    "relatedSymbols": []
  }
]
```


Invalid Request

Request

```
GET https://api.factset.com/research/irn/v1/notes?startDate=2019-22-09&endDate=2019-22-10
```

Response

HTTP 400 – Error

Response Body

```
"Invalid Date format provided. Expected Date Format: yyyy-MM-dd"
```

Response Headers

```
api-supported-versions: 1
content-type: application/json; charset=utf-8
date: Thu, 10 Oct 2019 07:30:35 GMT
status: 400
```

Request

DELETE https://api.factset.com/research/irn/v1/notes/4B884FD3-4A52-4E08-A9C9-33A2993D74AE/

Response

HTTP 200 Success

Request

PATCH https://api.factset.com/research/irn-api/v1/notes/4B994FD3-4A52-4E08-A9C9-33A2993D74AE/

Request Body

```
[
  {
    "path": "title",
    "op": "replace",
    "value": "change title"
  },
  {
   "path": "customFieldValues/-",
   "op": "add",
   "value": {"code": "ESG_RATING", "optionValue": "Above Average"}
  },
  {
    "path": "relatedSymbols/2",
    "op": "remove"
  }
```

```
]
```

Response

HTTP 200 Success

Request

```
PATCH https://api.factset.com/research/irn-api/v1/notes/4B994FD3-4A52-4E08-A9C9-33A2993D74AE/
```

Request Body

```
[
  {
    "path": "path",
    "op": "invalidop",
    "value": "value"
  }
]
```

Response

HTTP 400 - Error

Response Body

```
"Invalid operation invalidop"
```

9. Troubleshooting

The following steps are recommended to troubleshoot errors from any of the different APIs:

- Record the X-DataDirect-Request-Key response header so that FactSet's API engineering team can analyze your specific request/response.
- Record the response body when the response is an error response. All HTTP status codes equal to and greater than 400 are considered error responses.
- Reach out to your account team with the above information for assistance.

10. Version Upgrade

FactSet will support previous API versions for a limited time. The actual support time will depend on the API and the release stage (i.e. beta or production). This support schedule may evolve in the months following upon the release of these APIs.

- FactSet supports the two (current and previous) most recent beta releases.
- FactSet supports the four (current and three previous) most recent production releases.

All breaking changes, functionality additions, and bug fixes across earlier versions will be documented in the changelog. FactSet's API engineering team will work with the clients to ensure smooth transition to newer versions.