Process Event Analytics
Product Sheet

Process Event Analytics (PEA) is a cloud-based application, combining advanced data analytics with standards and guidelines such as IEC-62682 and EEMUA-191 to help you evaluate and improve the performance of the Alarm System of your Distributed Control System (DCS) in order to protect profitable production.

Prerequisites

Subscription	A valid MindSphere Capability Package (Basic/Standard/Premium) subscription is required. Additionally, a valid subscription to a PEA application extension (1 PEA License Unit/3 PEA License Units/6 PEA License Units/12 PEA License Units) is needed for Event analysis of your Alarm System within PEA.
Data acquisition case 1 (PCS 7 V7.1 SP2 to V9.0 all SPs)	When using PCS 7 data, it is your responsibility to install and to configure the Data Collector and to provide the collected data continuously.
Data acquisition case 2 (3rd party system or PCS 7 older than version 7.1 SP2)	If PEA shall be used for a non-PCS 7 system or PCS 7 older than version 7.1 SP2, this must be clarified in advance with us on a case-by-case basis. For transmission of the required data of your Alarm System, you must provide the data in the format defined by us. Our confirmation of the suitability of your data is a necessary condition for provisioning of the PEA.
Data transmission	PEA requires that the data is transmitted by you to us. • **For Data acquisition (case 1)**: ▪ The Collected Data can be uploaded by you regularly (e.g. daily or weekly) within the PEA application. ▪ The Collected Data can be automatically uploaded using the MindSphere Connector. It is your responsibility to install and to configure this software. • **Data acquisition (case 2):** You have to provide manually all required data in a .csv file per Alarm System on a monthly basis. To begin manual data transmission, a notification e-mail about available new data must be sent to a mailbox defined by us (please refer to Support). We will provide the necessary upload login information by e-mail. You are responsible for sending the data.

	PEA needs the following data (provided manually or using Data Collector) for the analysis and assessment of the Alarm System ("Collected Data"):
	• Required:
	  ▪ **Message Date and Time**: Timestamp of the Event status change
	  ▪ **Message Number**: Unique id of the Event
	  ▪ **Priority**: Priority value of the Event
	  ▪ **Message Type Name**: Type of the Event
	  ▪ **Instance Name**: Name of the tag which produce the Event
	  ▪ **Area Name**: Name of area where the tag is situated
	  ▪ **Message Text**: Text of the Event
	  ▪ **Status Text**: Status of Event (incoming, outgoing, acknowledged)
	  ▪ **Duration**: Duration of Event between incoming and outgoing status
	• Optional (based on availability):
	  ▪ **Milliseconds**: Additional information to the attribute "Message Date and Time"
	  ▪ **Message Class ID**: Class id of the Event (PCS 7 specific attribute)
	  ▪ **Message Class Name**: Class name of the Event (PCS 7 specific attribute)
	  ▪ **Message Type ID**: Type id of the Event
	  ▪ **Instance Type Name**: Type of the associated tag
	  ▪ **Status ID**: Status id of Event

Web browser	An HTML5 capable Internet browser with latest version is required (e.g. Google Chrome). The recommended screen resolution is 1024x768 or higher. PEA is optimized for Google Chrome.

Description

PEA analysis features	The PEA provides an analysis of an Alarm System for one month of data. The analysis results are shown as Key Performance Indicators (KPIs) broken down across several categories. The analysis results are exclusively available within PEA. Please refer to our user manual (available within user interface of PEA application) for further details about the analysis and provided KPIs.
PEA recommendation	Based on the Event pattern, possible causes are listed and recommendations for correction are provided. In the case of unspecific error patterns or unknown causes, it is advisable to consult an expert to investigate the problems in more detail.

Pricing Model

Application subscription	Process Event Analytics
Fee	See Order[1]
Billing cycle	Full amount in advance
Application subscription	The application subscription allows access and use of the PEA application. The Data Collector and MindSphere Connector are parts of the application subscription and cannot be ordered or used separately for other purpose. Additionally, PEA License Unit Extension is needed for analysis within PEA.
Subscription Term	The Subscription Term for the application is generally either 12 or 36 months. The Subscription Term shall automatically renew if set forth in the Order.
Co-term (renewal and termination)	The Subscription Term for this application will be co-termed with the Subscription Term for your existing MindSphere Capability Package.
Application Extensions	

Subscriptions	PEA 1 License Unit Extension	PEA 3 License Units Extension	PEA 6 License Units Extension	PEA 12 License Units Extension
	Include 1 PEA License Uni.	Includes 3 PEA License Units	Includes 6 PEA License Units	Includes 12 PEA License Units
Fee	See Order[1]	See Order[1]	See Order[1]	See Order[1]
Billing cycle	Full amount in advance			
Extension subscriptions	Additional fees will be applied for any extension subscription which include 1, 3, 6 or 12 PEA License Units. PEA License Units are needed for analysis of analysis of the DCS Alarm System performance. In order to use the subscribed PEA License Units, activation within PEA application is needed.			
PEA 1 License Unit Extension	Includes 1 PEA License Unit which is enough to analyze one month of alarm data of your DCS Alarm System within the 12 month Subscription Term.			
PEA 3 License Units Extension	Includes 3 PEA License Units which is enough to analyze 3 months of alarm data of your DCS Alarm System within the 12 month Subscription Term.			
PEA 6 License Units Extension	Includes 6 PEA License Units which is enough to analyze 6 months of alarm data of your DCS Alarm System within the 12 month Subscription Term.			
PEA 12 License Units Extension	Includes 12 PEA License Units which is enough to analyze 12 months of alarm data of your DCS Alarm System within the 12 month Subscription Term.			
Subscription Term	The Subscription Term for the extensions is 12 months. The Subscription Term shall automatically renew if set forth in the Order.			
Co-termed (renewal and termination)	The Subscription Term for any extensions will be co-termed with the Subscription Term of this application. In case of different initial Subscription Terms for the application and extensions, price and number of included License Units will be pro-rated. If an application subscription is terminated, the associated extensions will also be terminated at the same time.			
Payment Terms	Fees for Process Event Analytics application subscription and for any of the extensions described herein are fully charged in advance for the entire Subscription Term unless otherwise expressly provided in an Order.			

[1] Subscription-based pricing is set forth in the Order.

General	
Service Level Agreement	The Monthly Availability for this application is at least 95%. Monthly Availability is defined in the Cloud Support and Service Level Framework available at https://www.siemens.com/sw-terms/sla.
Data consistency	We do not check the data sent for accuracy, plausibility or completeness. Your entitlement covers just an analysis of the data sent correctly.
Third-Party Terms	The Third-Party Terms for PEA are made available via the following web link: https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview/Third-Party-Terms.
Support	Support is available in German and English via e-mail PEA.support.industry@siemens.com. Hours of operation are Monday through Friday, 8:00 am to 5:00 pm CET - excluding national and local holidays. Support is available in English and German.

Export Control Regulations

AL	N
ECCN	N

Security Information

General	In order to protect plants, systems, machines and networks against cyber threats, it is necessary that you implement and continuously maintain a holistic, state-of-the-art industrial security concept.

Definitions

Alarm System	An Alarm System as part of a distributed control system describes a system with a functionality of notifying an operator of abnormal occurrences and aiding the operator to quickly resolve those abnormal occurrences with the goal of maintaining proper operation.
Data Collector	Software which is used to collect control loop data from a PCS 7 V7.1 SP2 or higher system. This software is part of the PEA subscription.
Event	An Event is any message recorded and/or shown to the operator. This includes alarms, warnings, operator messages, DCS system messages, status messages and/or operation requests.
MindSphere Connector	Software which can be used to automatically send the Collected Data, collected by Data Collector, into PEA. This is an alternative option to the manual upload initiated by the User. The MindSphere Connector works only with the Data Collector.
PEA License Unit/s	PEA License Units are used within PEA application for analysis of Events of your Alarm System. Example 1: The consumption of a single PEA License Unit enables the analysis of continuous period of 1 month of Event data of your Alarm System.
General	Unless otherwise indicated, capitalized terms used in this document shall have the meaning given to them in this Product Sheet or elsewhere in the Agreement. You may also want to check our Glossary.

https://siemens.mindsphere.io/en/docs/Product-Descriptions-Overview