

INGEDRIVE

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energyfactory

INGESYS

Ingeteam Technology is pleased to announce the release of energyFactorySuite 2.0 - a comprehensive suite of tools for modeling, configuring and commissioning IEC 61850 and IEC 61400-25 systems.

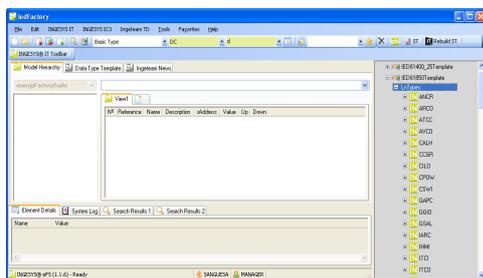
energyFactorySuite 2.0 is a comprehensive suite of tools designed to simplify IEC 61850 and IEC 61400-25 system engineering, configuration and commissioning.

Unlike any other SCL (Substation Configuration Language) engineering tool on the market, **energyFactorySuite** focuses on providing you with the means to create, modify and configure information models quickly and easily. **energyFactorySuite** not only hides the XML syntax behind the SCL files, but also provides advanced mechanisms to manage complex information models. This article describes the key features of **energyFactorySuite**.

IED¹ modeling: iedFactory

- **Dictionary with complete set of information model templates.**

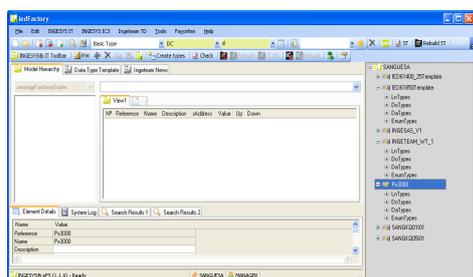
INGESYS[®] eFS² includes all of the logical nodes, and data types defined in IEC 61850-7-3, IEC 61850-7-4, IEC 61850-7-410, IEC 61850-7-420 and IEC 61400-25-2. Hence, you not need to manually type in any data type that already exists in these standards.



- **IED database for reusing models in new devices.**

You can create new IEDs by using the data type templates of other devices in the database. **INGESYS[®] eFS** allows two IEDs to share data type templates and also lets you create new types based on existing ones.

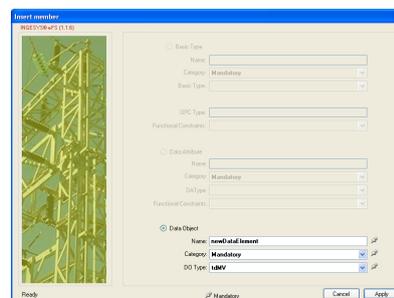
You can use drag and drop or copy and paste logical devices, logical nodes and/or datasets inside one IED or between IEDs.



1 IED: Intelligent Electronic Device acronym.
2 eFS: energyFactorySuite.

- **Information model extensions**

INGESYS[®] eFS allows you to create new data types or to modify existing ones with new non-standard elements.



- **Importing IEDs from ICD, CID or SCD files.**

INGESYS[®] eFS allows to import SCL files to create new IEDs or to update existing IEDs in the database.

You can configure the importing process options to select which sections of the SCL file must be imported: initial values, control blocks, datasets, etc.

The importing process can highlight differences between an existing IED in the database and the new SCL file to import. Hence, you have complete control of IED updates based on SCL file modifications.

- **Exporting IEDs to ICD or CID files**

Once the device has been modeled, you can decide which SCL elements should be included in the exported file.

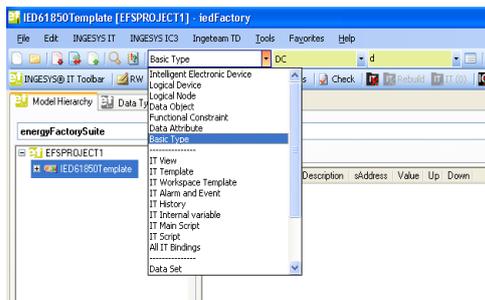
IED configuration: iedFactory

INGESYS® eFS offers a set of features for slashing configuration times:

- **Advanced filtering mechanisms.**

Information models hold several types of information depending on their use: set-points, status values, measurements, configuration, descriptive attributes, etc..

INGESYS® eFS provides different filter mechanisms: type (IED, logical device, logical node, etc.) and name of the element to filter. For instance, getting all the descriptive information of a logical node can be performed by applying a “basic type” filter with functional constraint DC.



- **Quick creation of complex datasets**

With a simple drag and drop, you can create datasets with all the status or measurement information of a logical device or logical node.

- **Different model views**

You can select the information that needs to be modified by choosing an element from the information model tree and expanding its content in the main information panels.

- **Quick assignment of initial values**

Once the information is filtered, initial values can be directly modified from the main panel view, thus facilitating the management of large information models.

- **Importing and exporting from EXCEL files**

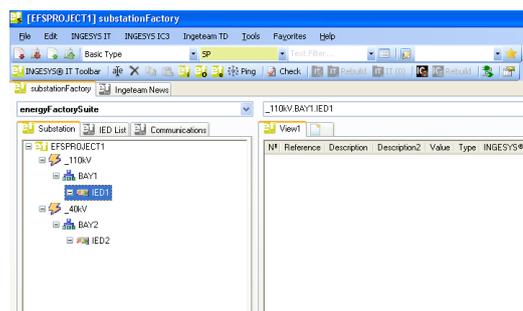
INGESYS® eFS offers mechanisms to store and retrieve configuration information from Microsoft EXCEL files.

System configuration: substationFactory

substationFactory allows you to do the following:

- Define the substation topology: voltage levels, bays and IEDs,
- Define the communication topology: sub-networks, access points, etc.
- Create the list of IEDs included in the system, by selecting them from the IED database created with iedFactory,
- Modify the configuration of the IEDs in the system: by changing initial values, settings, datasets, etc.
- Export the SCD or CID files of specific devices.

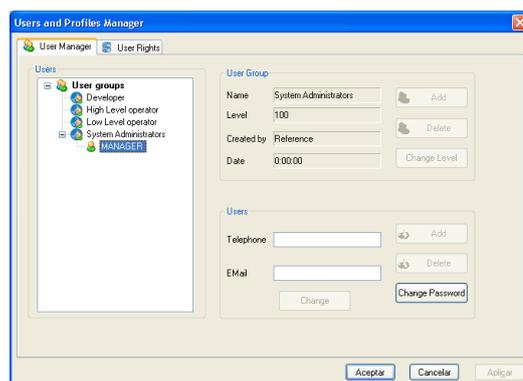
All the features used to filter the information model inside iedFactory are also available in substationFactory.



Multiple projects and users

energyFactorySuite lets you assign different roles and actions to different users.

Using projectFactory, you can create, delete or change the active project. With this tool, you can also import/export projects created on the same or different workstations.



INGESYS® eFS extensibility - Add-ins

SCL defines procedures to add private sections to the configuration files, including vendor specific information.

INGESYS® eFS provides a powerful mechanism to create small programs that can access the information model and edit the private sections, modify the configuration or even generate vendor specific configuration file formats.

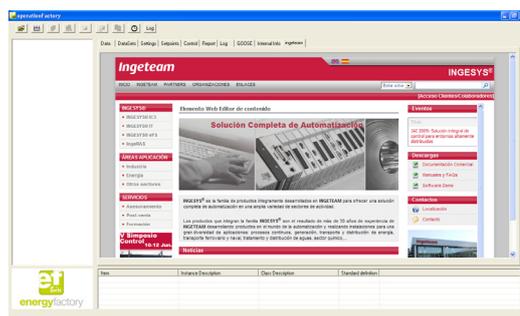
This feature makes INGESYS® eFS the best tool for integrating IEC 61850 information models into any device or system.

Ingeteam uses the INGESYS® eFS add-in functional feature to integrate IEC 61850 equipment into its systems which include INGESYS® IT (SCADA system) or INGESYS® IC3 (Substation Control Unit or Remote Terminal Unit)

System commissioning: operationFactory and emulationFactory

INGESYS® eFS not only enhances the creation of SCL models, but also lets you validate the system before it is completely deployed.

- Using operationFactory, you can connect to any existing device to monitor its data, activate reporting, request commands, modify settings or even receive GOOSE³ messages.



- Using emulationFactory, you can emulate the behavior of any device using its CID configuration file. emulationFactory lets you modify data values, qualities etc. by sending reports or goose messages according to the configuration.

Try and purchase energyFactorySuite

energyFactorySuite is distributed within different packages to fulfill different user requirements.

You can download a trial version of energyFactorySuite from the INGESYS® web page.

For more information, please visit:
<http://www.ingesys.ingeteam.com>

³ GOOSE: Generic Object Oriented Substation Event: special messages sent to Ethernet multicast addresses to inform of data changes to multiple subscribers at the same time.