

Developing Program system (SEAIEC) for Support Substations Configuration according to "IEC-61850"

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Abstract

As intelligent electronic devices (IEDs) are widely used to perform the required functions (protection, local and remote monitoring and control, etc.) using specific proprietary communication protocols developed by each manufacturer, the need arose for efficient communication among the IEDs, especially for a standard protocol.

The paper presents an overview of the IEC 61850 standard, terms and definitions, substation configuration description Language, and method of Substation Configuration according to IEC-61850. Through our research, we developed program system SEAIEC (Substation Editing According to IEC-61850) that allows editing single line diagram. This program system has been programmed in base of XML and linked with HELINKS-STTS program to configure the substation and build the required files according to "IEC-61850"Standard.

Keywords: Substation Automation Systems, Standards, IEC-61850, IEDs, Communication Protocol, Substation Configurations, Logical Device, XML, Logical Node.

For the paper in Arabic see pages (285-309)

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