Márcio Egydio da Silva Rondon

"Representação de Dados de uma Subestçãoa De Energia Elétrica Utilizando um Modelo Padronizado "

The integration of a new electrical susbstation in the control centre of an electrical utility is usually beset with delays. The latter frequently arise from the heterogeneous format and terminology used by different manufacturers to identify the configuration of the points to be used for supervision and control. This heterogeneity leads to inconsistencies and dubious interpretations during the configuration phase. This report presents an extension of the existing model (CIM - Common Information Model) that describes the main objects normally employed in the EMS (Energy Management System) environment of an electrical utility. The primary purpose of the CIM is to consolidate standards and nomenclatures for representing the information, as well as to establish a stable platform that can be extended in order to support other power system applications. In particular, the extension proposed in this dissertation is based on the inclusion of some classes and attributes, which allow the configuration of the points to be supervised and controlled by the SCADA (Supervisory Control and Data Acquistion) susbsytem. The proposed model aims to establish a standard document that describes unambiguously the points to be integrated into the SCADA. The standardization allows the automatic generation of the configuration files, which are required to integrate new substations in the EMS database.