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ABSTRACT

OVERVIEW: Intelligent Electronic Devices (IEDs) are becoming increasingly popular as an automation tool in electrical substations. These devices can be used to monitor, control, and protect complex power grids while collecting data for further analysis. Researchers at Texas A&M University are currently developing programs that can monitor and analyze data collected from IEDs.

STUDENT PROJECT: The majority of the summer project consisted of developing user documentation for one of these programs. This was done by creating HTML pages and using Microsoft Help Workshop to create a single Windows help file. The end product will be included in several different projects that are currently under development at Texas A&M.

My research has also focused on section six of the IEC 61850 standard, which describes an XML-based means for describing substation topology known as the Substation Configuration Language (SCL). Specifically, I have been evaluating programs that can create SCL files from a substation diagram. These files will eventually be used by analysis applications like those described above. Provided that the programs are compliant with the IEC standard, they will be able to analyze a variety of substation configurations without having to be recompiled.