

Developing Network Visualization Tools Using WPF

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Abstract

The traditional graphical technologies like Windows Forms and Open GL has been widely used to develop electrical network modeling and visualization tools. These technologies present good results. However, new technologies are constantly emerging.

The objective of this purposed discussion is to present the Microsoft's Windows Presentation Foundation (WPF) as an alternative for the development of graphical user interfaces of EMS/DMS software.

A brief review of WPF will be presented, as well the differences between WPF and other traditional render technologies like Windows Forms and Open GL, with especial attention to some characteristics like separation between user interface and business logic, device independent unit vectorial system, easiness of creation and maintenance of rich and customized symbols libraries, portability between stand alone and web based applications and data binding of the graphical elements and electrical objects. Some examples will also be presented to illustrate the application of such characteristics in real EMS/DMS software.