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User Interfaces

PSS®NETOMAC

PSS®NETOMAC, one of the world's leading programs for simulating all kinds of dynamic phenomena in electrical power systems with decades of experience and with a wide variety of applications, is a modularly structured tool. This high-end simulation engine can be employed by different graphic user interfaces (GUI), by efficient automation scripts in a Microsoft Windows environment and even within co-simulation with other simulation software and hardware.

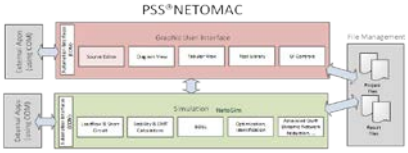

Figure 1: Modular structure of PSS®NETOMAC

Any text-editor can be utilized to enter the network and model data as well as to configure the simulation parameters. The complete data set is described by means of well-structured ASCII-files, which are interpreted by the PSS®NETOMAC calculation engine.

In general, PSS®NETOMAC contains an easy to use interface with many valuable features for the definition of input data and the analysis of results. It facilitates the user a very high degree of freedom in model definition. Furthermore, in order to provide the user with diverse input possibilities, the network can be graphically defined and analyzed in PSS®SINCAL, accessing the high-performance PSS®NETOMAC engine.

PSS®SINCAL GUI

This GUI provides a comprehensive and seamless integration of PSS®NETOMAC. All network data is entered and processed graphically in PSS®SINCAL and is stored in a database. PSS®NETOMAC's comprehensive simulation methods are part of the PSS®SINCAL user interface.

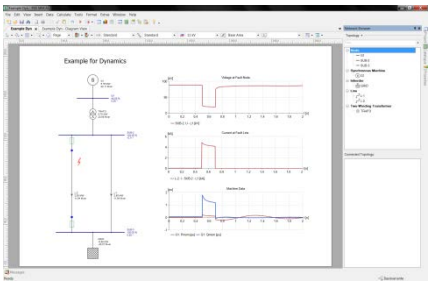

Figure 2: GUI of PSS®SINCAL

The results of PSS®NETOMAC calculations are displayed in the PSS®SINCAL graphical user interface – they can even be displayed directly in the network diagram. PSS®SINCAL provides these results as diagrams for further processing and evaluation.

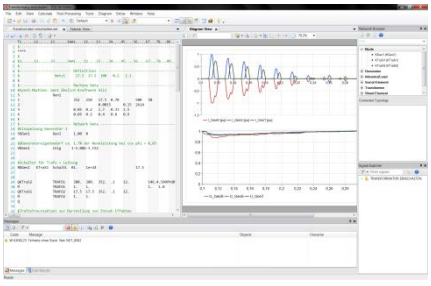

Figure 3: GUI of PSS®NETOMAC

PSS®NETOMAC GUI

This GUI includes a valuable text editor, which is optimized for the appropriate data format and for an efficient handling of the calculation engine. Furthermore, it offers miscellaneous analysis functions to display and evaluate the results.

Besides the definition of network models, it enables the user to model any type of controllers in Block-Oriented Simulation Language (BOSL). This contains various pre-defined transfer and mathematical functions as well as the possibility of user-defined FORTRAN statements. Moreover, the integrated Graphical Model Builder (GMB) enables a user-friendly graphical input for any type of controllers existing in PSS®NETOMAC. The modern GMB contains all standard editing possibilities and various analysis functions, which efficiently support the user within the modelling and control design process.

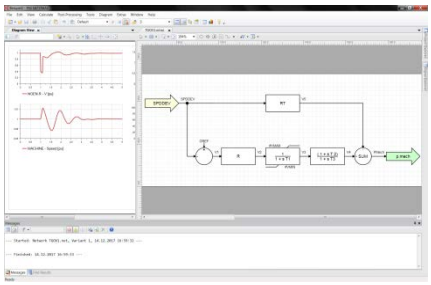

Figure 4: Graphical Model Builder (GMB)

Published by
Siemens AG 2018

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AL=N ECCN=EAR99

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