



POWERFACTORY

Customising the PowerFactory User Interface

Options for individual and global customisation

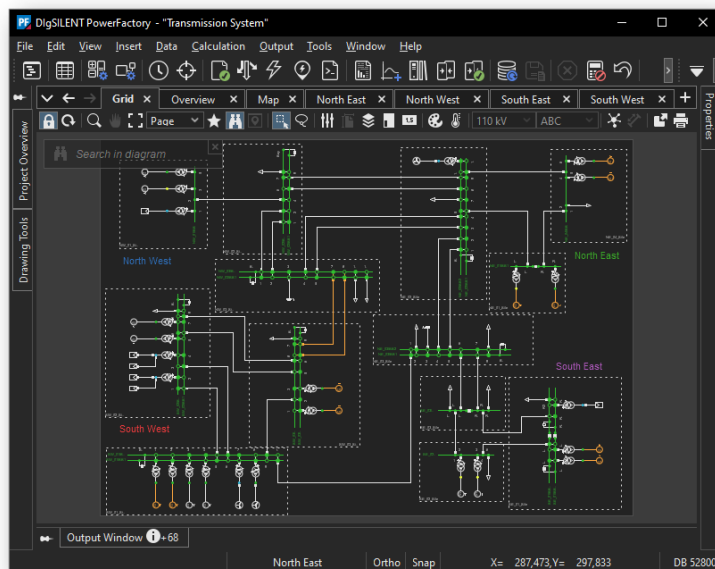
1 Introduction

One of the strengths of *PowerFactory* is its flexibility. Users have their own requirements, their own applications for the software, and their own personal preferences in their ways of working. In large companies such as utilities, there is also the need to ensure that corporate business needs are met, such as standard ways of working and of course data security. In this paper, we look at the features that *PowerFactory* offers for customisation of the graphical user interface (GUI).

For the individual user, many options are available via the User Settings, enabling each person to adapt *PowerFactory* to their own needs.

Some of the options relate to the “look and feel” of the user interface, including the window layout and the use of dark mode, as shown here. There are also possibilities for setting up hot keys and quick access menus.

More general customisation is managed by the Administrator user.



Working with *PowerFactory* in dark mode

For *PowerFactory* users who work with Team Edition, which means that they share a common database, this allows corporate requirements to be managed via global customisation. The Administrator can customise, though the use of profiles, what the users see in the GUI, including icons in the tools bars and menu entries.

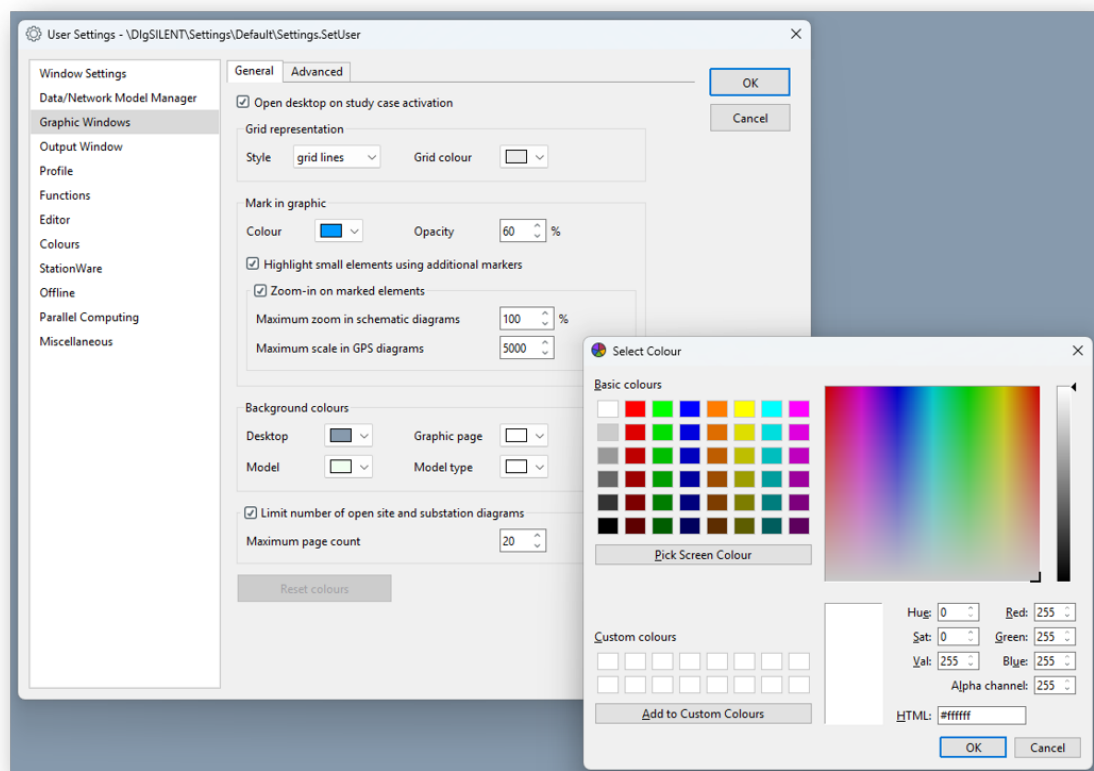
2 Individual Customisation

Individual users have considerable freedom in the way that they use *PowerFactory*. The user settings, in particular, offer options that influence the handling and presentation of data, and the appearance of the GUI.

User settings

The user settings offer the individual user the chance to customise the way in which they use *PowerFactory*. As well as many options regarding data handling and calculations, there are possibilities to customise the user interface. These include:

- A choice between the standard light mode, and a dark mode.
- Customisation of data dialogs, to remove data pages and parameters that are not relevant to the user, thereby simplifying the presentation of data.
- Selecting background colours for the main desktop and for graphic pages.



Changing background colours in the user settings

Windows layout

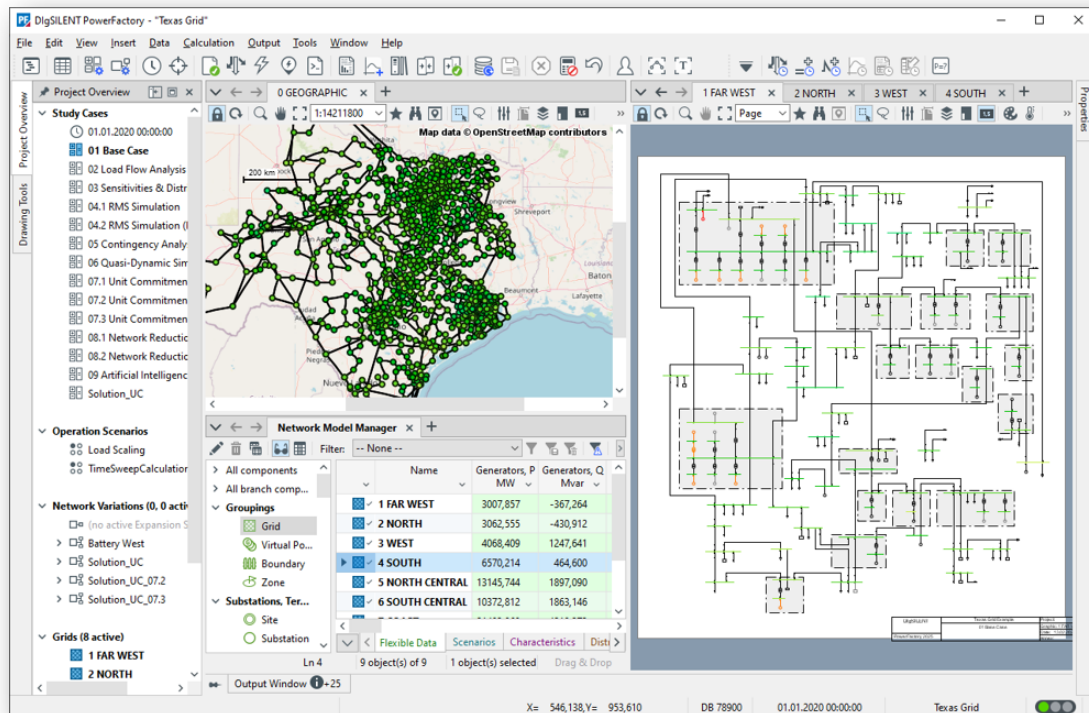
The *PowerFactory* GUI can be viewed on one or multiple screens, and the tabbed window concept also allows the user great flexibility in how the windows within the GUI are viewed.

Screen splitting

The main graphical window can be split both vertically and horizontally. Not just diagrams but also other windows such as data managers and reports can be moved into these tabbed groups.

Controlling visibility within the GUI

Some parts of the GUI can be made visible by pinning, or be collapsed in order to free up space. For example, the output window (where information and warning/error messages are output) is by default collapsed, but can be pinned if the user wants it to be normally visible.



Split screen showing diagrams and Network Model Manager

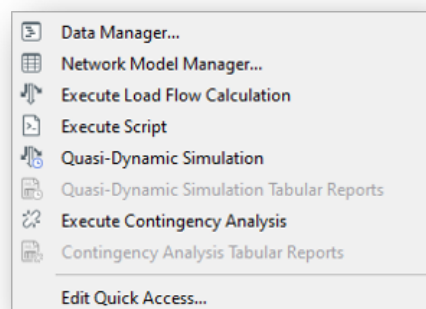
Hot keys and quick access

Hot keys

Hot keys can be used as short cuts for many actions. These are programmed by default within the software, but the user has the possibility to add to these, and customise the existing options.

Quick Access

The Quick Access menu is another option for speeding up work. Users can create their own menu of frequently used commands and actions.



Quick Access menu

3 Global Customisation

The role of the *PowerFactory* Administrator user is wide-ranging, and plays a key role in particular when users share a common multi-user database (so-called Team Edition). In addition to managing the creation/deletion of users within the database, and the administration of access to licence modules, the Administrator can also make use of *PowerFactory*'s user groups and profiles to customise the user interface to suit different groups of users. The customisation described in this section is particularly useful for users of Team Edition, but is also available via the Administrator account in a local database.

User groups

By default, every user in a multi-user database belongs to a single group called *Everybody*. The Administrator can add additional groups and freely assign users to these groups. Any individual user can be assigned to multiple groups, as required.

What are these user groups for?

- Users can share their data with other users in the database. This is done by sharing their *PowerFactory* projects with one or more user groups. They might simply share with *Everybody*, but could instead just share within their own team, for which a user group might be created.
- User groups can be used to give access to certain licence modules (as an alternative, or in addition to, allocating access on an individual basis). For example, if only a limited number of the protection licence module is available, users in *Everybody* would not be given access, but the user group *Protection Team* could be given that access.
- User groups can be used in conjunction with profiles, to provide customised GUIs. Once profiles have been set up, as described below, different user groups are given access to one or more profiles. This means that the profiles available for any one individual user are determined by which user group(s) that user is in.

Profiles

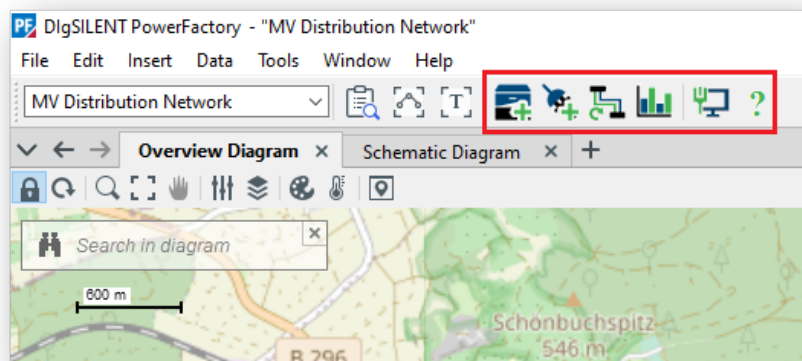
Profiles can be used to configure a number of aspects of the Graphical User Interface, such as toolbars, menus, dialog pages, and dialog parameters. *PowerFactory* comes with two inbuilt profiles: Standard and Base Package. The Standard package allows the user to see all available icons, menu items etc., whereas the Base Package profile is configured in such a way that icons and menu items etc. relating to modules and functions not available within the Base Package are not shown.

Although many users are quite happy to work with the Standard or Base Package profiles, there can be various reasons why the Administrator might want to create additional profiles and make these available to users. For example, a certain user group might be provided with customised toolboxes that allow easy access to frequently used functions. For other groups, the priority might be to streamline the GUI by removing icons and options that are not needed.

Customisation via Profiles

Some of the various areas where customisation can be made via user profiles are described below.

- **User-defined Tools toolbox (scripts):** In the main *PowerFactory* menu, the standard toolboxes for the many modules and functions can be selected. This selection also includes a User-defined Tools toolbox, where the Administrator can make scripts available to users. The icons within the toolbox are also customisable.
- **Toolbars:** The main toolbar and the toolbox toolbars can be customised to add or remove icons. Great flexibility is offered, with the possibility to define new toolboxes containing whatever selection of functions is required.
- **Menus:** It is also possible to modify the context menus that are presented in *PowerFactory* when the user right-clicks on graphical objects or on items in the hierarchical Data Manager display, for example. This type of customisation can be used to restrict available actions or simply remove options that are not of interest to the users.
- **Dialog pages and parameters:** Objects in *PowerFactory* can be edited via a dialog that presents the object attributes. Such dialogs are often quite complex, with multiple pages and tabs. These dialogs can be simplified to remove pages that are not of interest, or even remove individual attributes from display. The scope of this customisation is greater than that available to the individual user via the User Settings.



Customised toolbar

4 Customisation of Network Representation

In addition to the possibilities described in the two sections above, which affect the general “look and feel” of the *PowerFactory* user interface, there are many options for customisation within each *PowerFactory* project. For the diagrammatic representations of networks, these include:

- **Geographic diagram maps:** As an alternative to selecting one of the standard maps to use in geographic diagrams, *PowerFactory* supports the use of user-configured map services based on the standardised WMS/WMTS protocol. The WMS are defined by the Administrator user.
- **Element symbols:** All network elements in *PowerFactory* come with standard symbols for their graphical representation, but users can also create their own symbols, using a graphical editor.

- **Diagram colouring:** Many diagram colouring options come as standard, and the colouring configuration can be set according to the type of calculation executed. However, there is also the possibility for users to customise the diagram colouring to suit their own requirements, using user-defined filters.

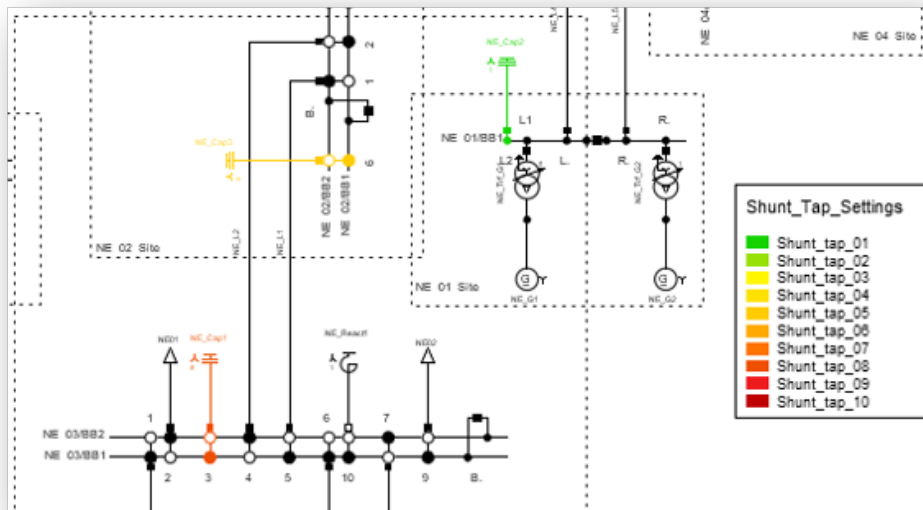


Diagram colouring using user-defined filters

5 Summary

PowerFactory offers different levels of customisation of the user interface, according to users' requirements. Some options are immediately available to individual users via their User Settings; others are only implemented by the Administrator user, which allows companies who use a multi-user database (Team Edition) to manage the changes centrally.



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