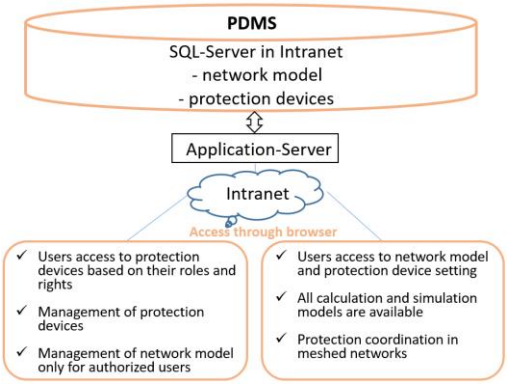
Management & setting of protection devices

NEPLAN Protection Data Management System offers all protection functionalities required in transmission and distribution networks as well as in generation and industrial plants. Protection for all power system equipment such as busbar, overhead line, cable, transformer, generator and motor is supported by NEPLAN. The software helps to increase the selectivity in case of all kind of faults and therefore the reliability of the network. Relay setting coordination in a radial as well as meshed network can be carried out in an easier and intuitive way. The management and setting of protection devices and all other parameters can be handled in a multi-user environment with a client-server architecture and user access rights in an efficient and economic way.

Protection Data Management System (PDMS)

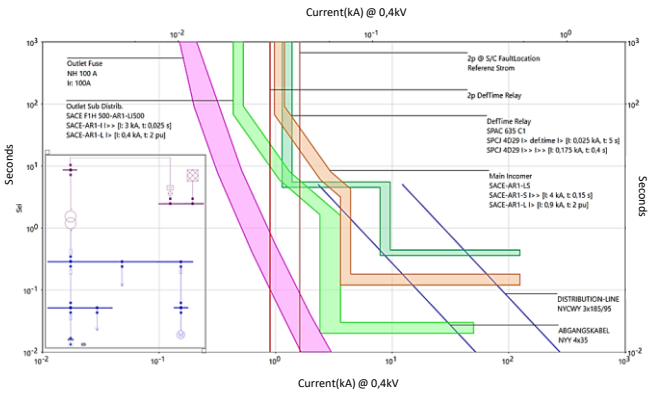
PDMS is a browser-based management software that allows the user to create, modify and delete protection devices, manage or add new protection libraries and keep history of all changes in the master database.
Apart from parameters used for creating characteristics, PDMS also handles additional parameters that ensure the correct behavior of the protection devices in the field. All parameters can be imported from Excel lists or XML files and are accessible through dialogs.



Using a sophisticated user administration scheme, PDMS offers different types of accessibility to the master database that contains the complete network model and all protection devices. Intranet users have direct access to PDMS database. Desktop users store their project in a local database with bidirectional communication with the PDMS database.

Overcurrent protection

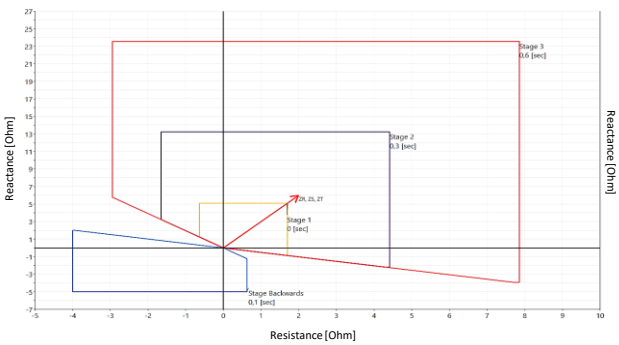
This module is used for the coordination of various overcurrent protection devices in a network. It offers an extensive protection device library of more than 4000 devices. The software handles definite-time, inverse as well as user-defined characteristics. Curves of network elements to be protected, like cables, can be displayed together with those of protection units. NEPLAN facilitates customizable setting reports of fuse, circuit-breaker and relays.



NEPLAN offers easy interaction between the single-line diagram and the selectivity chart which is automatically generated after a short circuit calculation.

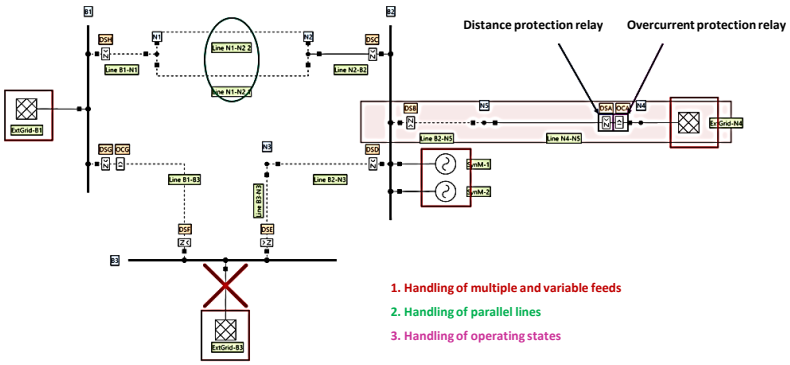
Distance protection

This module allows the user to enter pre- or user-defined distance protection relays with their settings and characteristics and to check the selectivity directly in the single line diagram or with a tripping schedule. During the user-supported setting procedure the in-feeds and line couplings are considered. Libraries simplify the inserting of relays. The tool also offers customizable zone setting reports.



Protection Setting Calculation Tool

NEPLAN addresses the challenge of optimal setting of protection devices under all operating states in radial and meshed networks and for phase-phase and phase-earth faults. Thereby, the distance relay zones and overcurrent relay stages are coordinated together. The optimal setting values are based on the sensitivity and consideration of various operational states, like infeeds and topology as well as the impedance correction factors in case of parallel lines.
The methodology for setting and coordinating the relays is transparent and reproducible and is made comprehensive through the generation of respective reports.



Your advantages

- ✓ Management of any protection devices on the network plan in a multi-user environment
- ✓ Integrated adjustment and coordination of protection devices in meshed networks
- ✓ Predefined and user-defined protection device models and extensive protection device library
- ✓ Storage of any information such as files, manuals and test reports
- ✓ Protection coordination with selectivity diagram and tripping schedule
- ✓ Macro language for protection device modeling for dynamic analysis

Advanced Protection Features

Busbar	Line	Transformer	Generator	Motor
• Differential protection	• Differential protection • Restricted earth fault • Overcurrent protection • Distance protection	• Differential protection • Restricted earth fault	• Differential protection • Power swing protection • Inadvertent energization • Pole slip	• Differential protection • Overload protection

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