



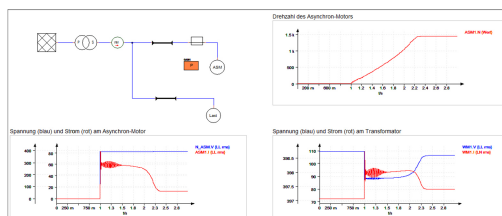
## Cerberus - Version 10.0

### Product Information

**Adapted Solutions** has expanded the functionalities of its network calculation software **CERBERUS** by means for performing simulations in the time domain and analysing the selectivity of the protection devices in the schematic. The new version **CERBERUS 10.0** comes with new models and additional functions for defining and analysing the power grid.

### Calculations in the Time Domain

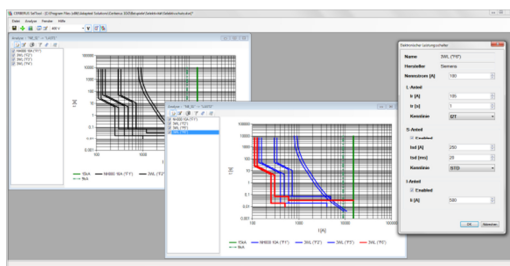
A fundamental revision of the numerical kernel used in **CERBERUS** has led to new features as the simulation in the time domain ("dynamic" or "transient" simulation). The used algorithms – developed in cooperation with the "University of Applied Sciences Mittweida" – allow for an ideal combination of accuracy and simulation speed. Whereas transients are calculated using small step sizes, steady-state operation over a longer time period can be calculated very quickly within few calculation steps. Possible applications of the new analysis are transient processes as the start-up of machines, simulations using load and power generation profiles, the analysis of battery systems and systems with components as grid controllers or adjustable transformers.



The new analysis comes with a new model library comprising components for modelling time sequences and controls by blocks, time functions and state machines. New powerful display elements complete the means for calculations in the time domain.

### Selectivity Analysis

Another new module available with **CERBERUS 10.0** is dedicated to the selectivity analysis of protection devices. Based on the **CERBERUS** circuit diagram, the tripping characteristics of all protection devices within a freely selectable current path can be displayed and (in parts) modified. Selectivity analysis is based on an advanced protection device model. By now, this model supports fuses (NH, HH), electronic power switches, definite-time overcurrent protection and user-defined data sets.



### Expanded Functionalities

Beside the new functions described above, **CERBERUS 10.0** comes with a number of new features as for example the calculation of the zero-sequence impedances of cables and more functions for adapting the display of calculation results in the schematic or in the result protocol.

**CERBERUS 10.0** is fully compatible with previous versions. The software supports the operating systems Windows® 7, Windows® 8 and Windows® 10.