

# Description of Script „ConvertLoadElements“

## 1 Basic functionality

- New variation is created to store changed load elements
- Replaces ElmLod/ElmLodmv/ElmLodlv elements with each other, both in network data and as graphical objects
- Conversion of parameters and characteristics:
  - Basic data (e.g. Owner, Site, Foreign Key, ...) and balanced load flow parameters (rated power, power factor, load scaling factor ...)
  - Conversion of parameters for different input types (e.g. P, cos(phi) -> E, cos(phi))
  - Aggregation of parameters such as load and generation of ElmLodmv to a single value if ElmLodmv is converted to ElmLod/ElmLodlv
- Comparison of element parameters before and after conversion for validity check
- Comparison of load flow results before and after conversion for validity check

## 2 Input parameters

Name	Type	Description
clNmAct	string	Default class name of load elements to be changed
clNmTgt	string	Default target class name that elements should be converted to
nmNewVar	string	Name of new variation that will be created
runLdf4Validation	integer	0: No load flow will be executed 1: Load flow will be executed before and after conversion to check validity
checkUserInput	integer	0: All elements of class "clNmAct" will be converted to elements of type "clNmTgt" with default settings 1: User can select class, input mode and specific load elements for conversion at beginning of script execution
deactNewVar	integer	0: New variation will be active after execution 1: New variation will be deactivated after script execution
selectAllLoads	integer	0: Select specific load elements during user input 1: Skip selection of load elements
useLodDesAsLog	integer	0: Description text (attribute "e:desc") of load elements will be transferred without changes 1: Description text of newly created load elements will contain information about conversion process

### 3 Main scripts and subscripts

<p>ConvertLoadElements. ComDpl</p>	<p>Main script containing routines and subscripts for user input handling, replacement of load elements, transfer of load parameters and replacement of graphical objects.</p>
<p>TransferLoadParameters. ComDpl</p>	<p>Subscripts of "ConvertLoadElements.ComDpl" to transfer parameters from old load element to new one.</p> <p>Input:</p> <ul style="list-style-type: none"> <li>• Old load element, new load element (as objects)</li> <li>• Preferred input mode for new load element</li> </ul> <p>Functionality:</p> <ul style="list-style-type: none"> <li>• Conversion of characteristics (ChaTime, ChaDisctime, ChaProfile, ChaVec, ChaMat, ChaScale)</li> <li>• Conversion and scaling of parameter values</li> <li>• Conversion of different input parameters</li> <li>• Aggregation of parameters</li> <li>• Validity check after conversion</li> </ul>
<p>HandleUserInput. ComDpl</p>	<p>Subscript of "ConvertLoadElements.ComDpl" to handle user input.</p> <p>Functionality:</p> <ul style="list-style-type: none"> <li>• Select initial and target classes for load conversion</li> <li>• Select preferred input type of new load elements</li> <li>• Select specific elements for conversion</li> </ul> <p>Output:</p> <ul style="list-style-type: none"> <li>• User selections as integer flags</li> </ul>