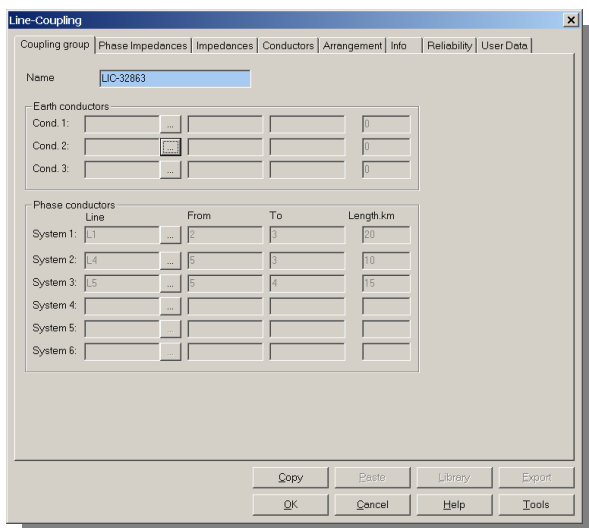
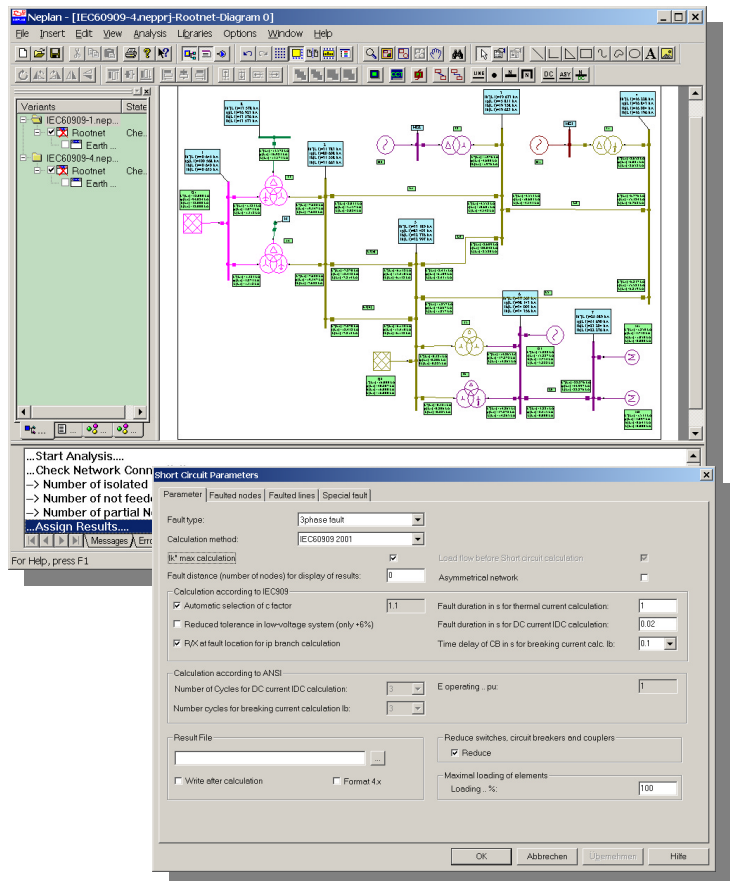


## General Characteristics

- Standards IEC 60909, ANSI/IEEE C37.10/C37.13
- IEC 61363-1 for off-shore/ship plants, IEC 61660 for DC networks
- 3-phase, 2-phase and 1-phase AC system or DC networks
- Superposition method with consideration of pre-fault voltages from a load flow.
- Computation of single-, two- (with and without earth connection) and three-phase faults.
- Option for computing user-defined fault types (e.g. double earth fault, fault between two voltage levels).
- Option for computing line faults (fault location on line user-selectable).
- Computable fault current types: initial symmetrical short-circuit current and power, peak, breaking, steady state, thermal and asymmetrical breaking current, plus DC component.
- Computation of minimum/maximum short-circuit current.
- Accurate model for transformer earthing connection.
- Petersen coil tuning in resonance earthed networks
- Current limiting due to circuit breakers and MOV.



## Line Coupling

- Mutual impedances and capacitances in the positive and negative-sequence systems are allowed for in short-circuit current computation.
- Circuit and coupling parameters of the overhead lines are computed from the conductor configuration.
- Overhead lines with up to 6 3-phase systems and 3 earth wires can be computed (earthing of 3-phase systems considered).
- Unrestricted number of overhead lines can be entered.
- Parameters and conductor configuration are saved in an SQL database.

## Results

- Automatic display of results.
- Move and delete function for result boxes.
- Self-defined result output in regard to units, formats and fault current types.
- Results can be inserted either at the beginning and/or end node, or also in the element's center.
- In the event of a short-circuit, all overloaded pieces of equipment (current transformers, voltage transformers, circuit-breakers, etc.) are highlighted.
- Results can be saved in a result file (ASCII file) and in an SQL database.
- Result lists can be saved in text files.
- List output: sorted by voltage levels. Short-circuit impedance and all computable fault currents are output as phase values or as symmetrical components.

