

These unique features of NEPLAN® greatly enhance your productivity

1. **The most complete** power system planning tool. No other tool on the market provides so many analysis functions for transmission, distribution, industrial, marine and offshore networks.
2. The most user friendly and powerful graphical user interface. Although NEPLAN offers all calculations needed for power system computation, **it is easier to use than other comparable tools**.
3. Advanced algorithms for **1-phase and (un)balanced 3-phase AC/DC** systems. Included are 4 different load flow algorithms. The “Extended Newton Raphson” is optimal for transmission networks, the “current iteration” algorithm is faster and provides better convergence for distribution networks and additionally NEPLAN has a very fast algorithm for radial asymmetrical distribution networks.
4. Completely open system (import/export to SQL and ASCII). NEPLAN users have full access to their data. Even all graphical information is available in any SQL database.
5. A C/C++ API - the NEPLAN Programming Library (NPL) - allows accessing any data through a user written C/C++ program. No other tool offers the possibility to read, write, add and delete all NEPLAN data (including the single line graphic) directly via a C/C++ user written program. This gives the user the option to make batch procedures, **DMS or SmartGrid** applications or even develop new calculation algorithms.
6. NEPLAN offers extensive model libraries with thousands of elements consisting of relays, motors, exciters, turbines, special controllers for wind power and FACTS, etc.
7. **Risk based analysis** (e.g. network reliability analysis, re-investment strategies, etc.) has become one of the most important task for a planning engineer. NEPLAN offers unrivaled models and algorithms and has therefore become the de facto standard for risk based planning.
8. The **NEPLAN dynamic simulator** has the most modern algorithms implemented and fulfills all dynamic simulation tasks of modern power system networks accurately and efficiently (e.g. renewable energy). No other tool on the market offers so much flexibility in handling as well as the option to simulate in RMS, EMT and the fast PHDYN (phasor dynamics) mode. If you struggle with **initialization of controllers**, you will be very happy with the sophisticated automatic initialization tool of NEPLAN.
9. The **NEPLAN TOOLBOX** makes it easier than ever **for researchers** to develop new models and algorithms. To model new components or control systems directly in Matlab® or Simulink® and simulate in real time within the NEPLAN environment is a feature that researchers have long been waiting for.
10. Last but not least: we listen to our customer wishes. Required new functions are implemented in fast and unbureaucratic way.