

## Portunus 3.2

New powerful features expand the application range of the simulation package **Portunus** by **Adapted Solutions** and make its use even more user-friendly.

The new **Fast Data Storage technology** developed by **Adapted Solutions** allows for a very fast storage and loading of simulation results within the schematic file. There are virtually no limits since Portunus is now able to handle data sizes up to Terabytes.

The capability of managing **multiple pages** is a key feature of Portunus 3.2 in order to structure the modelling of technical systems and the display of simulation results even more conveniently. Multiple pages are complementary to the already introduced sub-sheet technology. While sub-sheets allow for the introduction of levels, multiple pages let the user cut the system into parts and offer the possibility of having extra sections for documentation and visualisation.

The power electronics simulation capabilities of Portunus are expanded by a **new electro-thermal model of an IGBT with free-wheeling diode**. By using analytic functions for the calculation of switching losses rather than looking into the details of switching transients, the fast coupled simulation of the electrical and thermal behaviour of power electronic devices is now possible. Through co-operation with manufacturers the user does not have to spend time on finding appropriate model parameters but may simply load pre-defined parameter sets. As a starting point, more than 100 models provided by **Infineon** are already available.

These new features come together with the support of the IEEE package "Std\_logic\_1164" by the VHDL-AMS compiler, improved numerical stability due to the implementation of symbolic mathematics and further improvements in the graphical user interface.

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