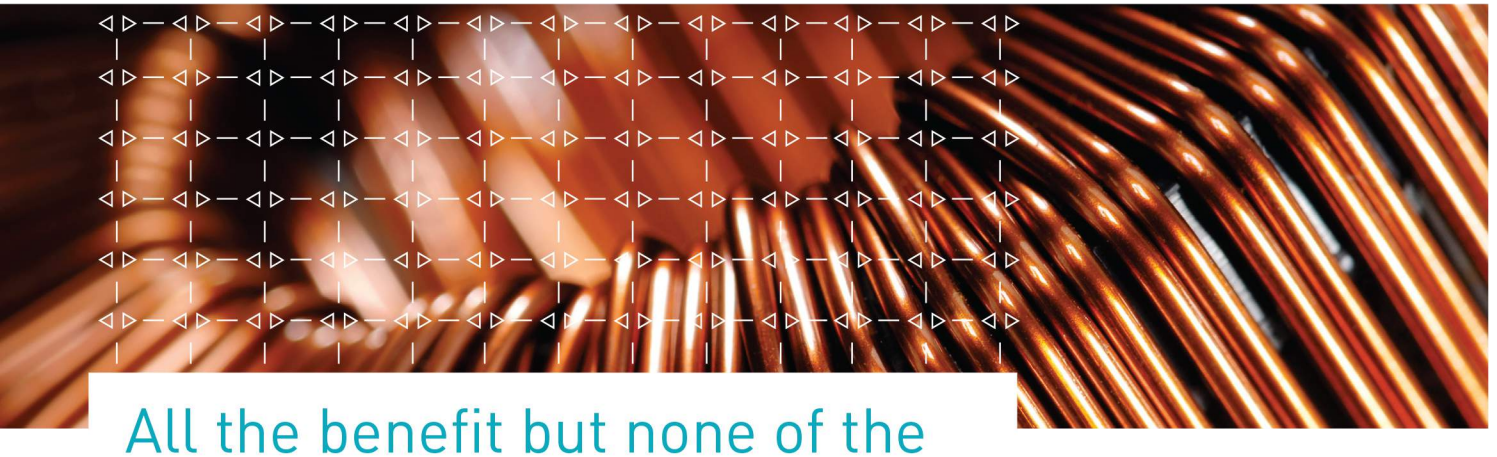
MAGCOUPLER-RT MODULE

PSIM



All the benefit but none of the cost of finite element analysis

The MagCoupler-RT Module provides the interface between PSIM and JMAG-RT data files. JMAG-RT is an add-on function of JMAG software. It generates a JMAG-RT data file which is a behavior model of an electromagnetic device such as an electric machine. The behavior model is another way of modeling electromagnetic devices as compared to a finite element model in JMAG.

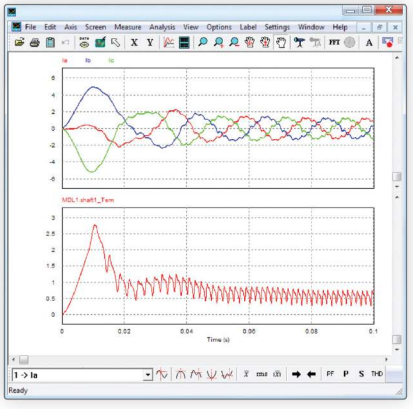
JMAG-RT data files are obtained by running JMAG simulation in advance, and are stored in a lookup table form. During the PSIM simulation, JMAG is no longer needed, and PSIM interfaces directly with the JMAG-RT data.

The main advantage of JMAG-RT is that, since JMAG-RT data are obtained from JMAG simulation, the accuracy of a JMAG-RT model is comparable to that of a dynamic JMAG model. However, since JMAG is not involved in the simulation, the simulation speed is much faster.

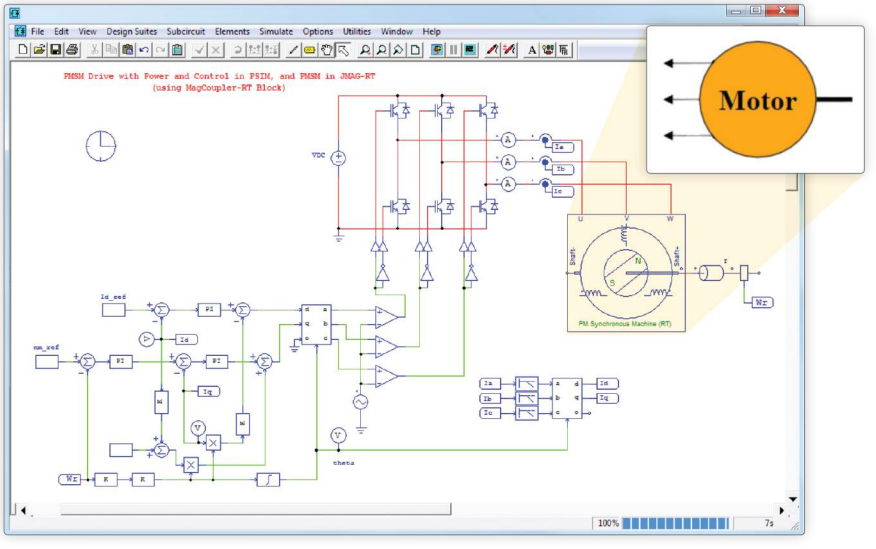
With the MagCoupler-RT Module, one has all the benefit but none of the computational cost of finite element analysis.

FEATURES & BENEFITS

- Easy to set up
- Accurate motor modeling in finite element analysis (FEA)
- Much faster than dynamic link with FEA software



Above: Current and torque waveforms of the **PMSM drive**.



Right: **PMSM drive** with power converter and control in PSIM, and PMSM in JMAT-RT.