

Release Note for EMPIRE XPU™ 7.70

New Features

- QTEM Ports: accurate and easy-to-use quasi-TEM ports based on eigenmodes
- Virtual Model Inspection Module: Visualize model and fields on virtual reality glasses (add-on module for HTC Vive)
- In-Plane averaging of near fields, e.g. power density averaging
- MIMO DCF (Display Correlation Factor) as alternative for MIMO ECC
- New optimizers based on evolutionary algorithms
- Simultaneous Simulation: Broad band phase delay support
- Support of symmetry (magnetic walls) for ports
- Object Library: New helical element
- Circuit Simulation: New 5-port coupler element (0, 90, 180, 270 degrees)
- U3D export for creating 3D-PDFs from Empire models
- BREP STEP export using Spatial's new Polyhedra plug-in available
- Point source support
- Grid angle adjustable in polar plots

Changes

- Menu for Multi-PC / On-disk simulation
- Additional Space to boundary for Structure Type: Waveguide Antenna
- Improved ODB++ Import
- Anisotropic material support for HFSS import
- Default Background material: Air instead of Vacuum
- Improved Wire Port default values and meshing
- Fixes for Boolean history
- Gain and efficiency calculation with equations in superposition
- Mouse wheel support for group list
- Special character support in Gerber imports
- Improved CST project import, mapping material to groups
- Convection and radiation default values for thermal simulation
- Easy-to-use impedance calculator for feed-line ports
- New plot types for field path integrations, reference impedance
- Improved two-sided loss models, for e.g. ground planes
- Display of Gabriel material parameters in Property editor
- Updated CAD-Interface to Spatial InterOp 2018.1.0.2
- Various stability and usability improvements
- Line Templates with new QTEM ports