EMPIRE XPU 9.0.0 Release

April, 2024

Enhancements

- General:
    - New Conformal Field Injection: Improved 2D PGA for flat metals
    - New reconnectable remote simulation server
- GUI:
    - New library element for voxel data files
    - Priority concept for mesh hints with overlapping areas
    - Improved transformation setup for farfield superposition
    - Import/Export of simulation setup
    - Show field probe location in 3D Design & 3D Display mode
    - Unification of normalization menus in field monitors
    - Improved compatibility with previous versions
    - Parallel simulation and preprocessing in parameter sweeps
    - Improved layout for variable sliders and values
    - No equation simplification by default in variables
    - Improved arrow input for function "Set Height"
    - Improved wire frame display for zero normal angle in 3D Design
    - Group name display in Infobox in 2D Design mode
    - Improved manual meshing behavior
    - Extended Material Database
    - Import and Export of views in edit modes
    - Improved via fence library element
    - Fix for flat solid extrusion
    - Improved automesh for parametric Boolean objects
    - Mesh hints support for ignore attribute
- Import / Export
    - New Collada 3D data import
    - Fix for GDSII import on Linux
    - Improved ODB++ import
    - Multpile DXF file import avoiding clones
    - Fix for OCC based export
    - IDTF/U3D export fix
    - Improved PCAD export for vias
    - Accelerated Gerber import
- Simulation engine:
    - Support of anisotropic meta materials
    - Improved strategy selection
    - Field source excitation using Far field monitor results
    - Extended CPU recognition
    - Improved field monitor convergence for zero fields
    - Warning for ports embedded entirely in PEC

- Postprocessing
  - Server postprocessing support on local host
  - SAR preprocessing for slave monitors
  - S to Z parameter transformation for imported Touchstone files
- 2D result plotting engine:
  - New plot type "Far field (RCS)" for bistatic scattering cross section
  - Fixed point format option for markers in plots
  - Option to include variant name in legends
  - Improved marker edit using current unit
  - Improved result table for Mimo-ECC
  - Fix for adding sweep plot
- 3D result plotting engine
  - Matching of maximum values in legend and marker at maximum location
  - SAR interpolation improvements for full volume monitors
  - Improved Field Monitor behaviour
  - Accelerated display of huge EM field monitors
- Circuit simulation module and schematic editor:
  - New 4-port transmission line element
- Documentation and Installation
  - Fix for status commands on Linux
  - Silent installation support
  - Automatic copy of field source files in project folder
  - Updated uninstall list
  - Updated Manual, Examples, Tutorials, Application Notes