



Simcenter™ FLOEFD™

Release Highlights

Software Version 2306
June 2023

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Introduction

This document provides a high-level summary of this release. It includes a summary of the new features in this release, any authorization code changes required, any major installation changes, and any transitioning issues you should be aware of before installing. Additionally, any last minute issues found in the final stages of testing are included.

New Features

The following new features are available in this release:

- **IGBT compact model.** New IGBT compact model based on a 2R model with its power determined by non-linear temperature dependent Current-Voltage relationships is available.
- **BCI-ROM update.** BCI-ROM version in Simcenter FLOEFD has been updated.
- **BCI-ROM Reference Temperature.** You can specify a reference temperature value and Simcenter FLOEFD will use temperature dependent material property values at the specified temperature automatically for ROM extraction.
- **Component Explorer: Export and import thermal list.** You can export a table of all components with their thermal properties and thermal models to an Excel spreadsheet, edit it and import it back to apply changes to a project.
- **Simcenter 3D NASTRAN non-linear solver connection.** A non-linear subtype of structural analysis provided by the Simcenter 3D NASTRAN solver is available now. You can change the subtype of a structural analysis to non-linear, set up the analysis, run the solver and process the results in the Simcenter FLOEFD window as usual without file export and import.
- **Structural: Large displacement option.** Large displacements can be taken into account for structural analyses (available for Simcenter 3D NASTRAN non-linear solver only).
- **Structural: Tolerance based contacts.** Tolerance values are available in the Contact dialog now. You can create a contact even if there is a gap between components.
- **Structural: User defined maximum aspect ratio in local mesh.** The maximum aspect ratio for a structural hex-dominant mesh can be changed for a component, allowing you to significantly decrease the element count needed for modeling very thin plates. The maximum aspect ratio had been limited to 1:4 in prior versions.
- **Structural: Goals for frequency analysis.** Eigenvalues for a modal analysis can be set as analysis goals.
- **EFD-API: Improve API and automation.** A new automatically generated EFD-API is available to cover all existing Simcenter FLOEFD features (new API available as a BETA feature, please open a support case if you would like to use it).

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- **Mesher scalability improvement.** Mesh generation time is reduced significantly as additional cores are used (up to 32).
 - **EDA Bridge import and Smart PCB generation speed increase.** Smart PCB import and mesh generation time as well as time to update after editing Smart PCB features is significantly reduced.
 - **FMU: Run on Linux.** All necessary data including geometry and mesh can be included in an FMU, making it platform independent and usable on a Linux computer. It is also possible to run the Simcenter FLOEFD solver coupled with an FMU generated by other software on a Linux system remotely if FMU supports it.

For a detailed list of new features, refer to Installation Instructions manual, available in the installed software tree or on Support Center.

Licensing

This release uses Siemens Advanced Licensing Technology (SALT) 2.2.0.0 with Mentor Standard Licensing (MSL), mgcld vendor daemon and licenses.

SALT is a new Siemens licensing solution based on FlexNet licensing technology version 11.19.0. If you use server-based licenses, you will need to update the license server accordingly. Download the latest Siemens License Server Installer and licensing documentation from Support Center:

<https://support.sw.siemens.com/en-US/product/1586485382>

For more information on SALT and Siemens License Server refer to [Knowledge Base article MG612613](#) “Getting Started with Siemens Advanced Licensing Technology (SALT) and the Siemens License Server (SLS)”, [Knowledge Base article MG612618](#) “Siemens Advanced Licensing Technology (SALT) Migration Guide for Mentor Products” on Support Center and new licensing documentation: Siemens Digital Industries Software License Server Installation Instructions and Siemens Digital Industries Software Licensing Manual for Mentor Products.

Authorization Codes

No changes to authorization codes are required for this release.

You can download your existing authorization codes from Support Center -> Account Center -> Licenses:

account.sw.siemens.com/licenses

For additional information on licensing, refer to the *Siemens Digital Industries Software Licensing Manual for Mentor Products*.

Supported Platforms and software

- Microsoft Windows 10 Pro or Enterprise 64-bit (tested with v1909), Microsoft Windows 11 Pro 64-bit (tested with v21H2)
- For solver: Microsoft Windows Server 2012, Microsoft Windows Server 2012 R2, Microsoft Windows Server 2016, Microsoft Windows Server 2019, Microsoft Windows Server 2016 with HPC Pack 2016, Microsoft Windows Server 2019 with HPC Pack 2019, RHEL 7.9, RHEL 8.4, SUSE SLES 12 SP5
- Microsoft Office 365, Microsoft Office 2019, Microsoft Office 2016, Microsoft Office 2013
- HyperLynx SI PI Thermal v2.12
- CGNS file format 4.3
- 8 GB RAM minimum, more recommended
- 8 GB of free hard disk space, more required for simulation models
- Localized languages: French, German, Japanese, Korean, Turkish, Simplified Chinese, Russian

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