



# **Simcenter™ FLOEFD™**

# **Release Highlights**

Software Version 2312  
December 2023

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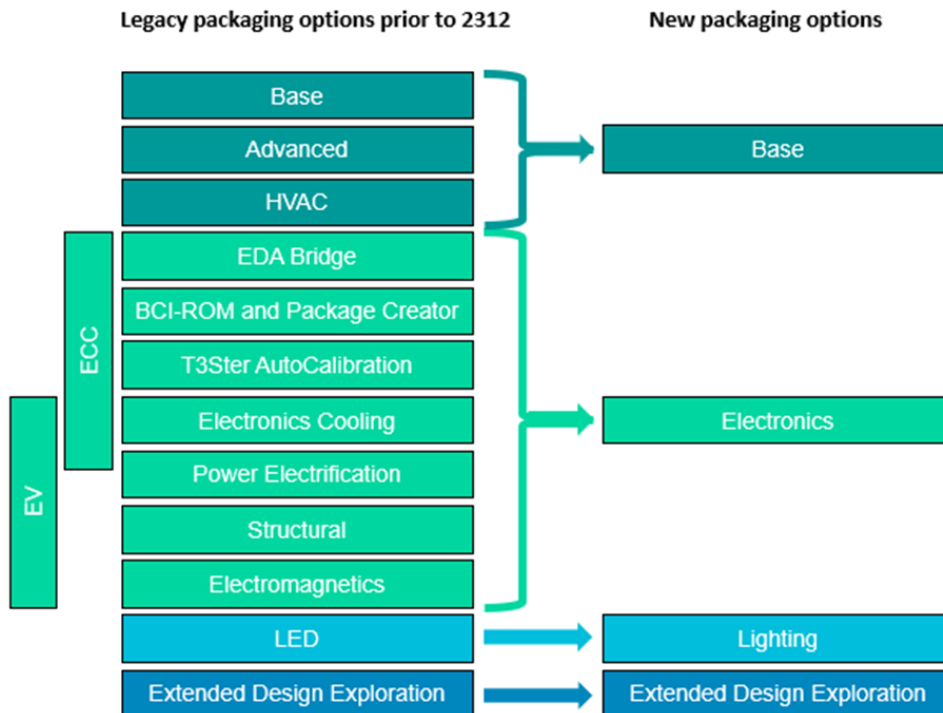
# Introduction

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

- **EDA Bridge update.** Thermal territories can be created independently from components. You can record, edit and play scripts to reapply the same set of settings to different design cases easily.
- **Package Creator update.** Additional component templates are available now as well as accessibility improvements and UX update.
- **Reflow oven process simulation.** You can use the new Reflow project template to create a reflow oven project, then automate the reflow parameters definitions using scripts made with the new FLOEFD API.
- **Non-linear materials.** Elastoplasticity option is now available for solid materials in the Engineering database, which allows specification of Engineering Stress-Strain curves.
- **Large strain option.** Large strains can be considered during calculation of a non-linear structural analysis.
- **Mesh Boolean Operation for Structural.** Mesh Boolean mode of Geometry recognition is now supported for structural analysis.
- **General contacts.** Contacts can appear and disappear during a non-linear structural analysis due to bodies' deformation.
- **X-Ray leakage analysis.** The range of wavelengths for wavelength dependent radiation properties is expanded now, with the new lower limit set to 0.01 nm instead of 100 nm.
- **FLOEFD API.** New FLOEFD API is available now. It allows your applications to run the Simcenter™ FLOEFD™ products, create projects and features, access and adjust their parameters, run calculations and get access to the analysis results.
- **Batch results processing without CAD.** Resulting pictures, scenes, reports and spreadsheets can be exported without a Simcenter FLOEFD product being open on Windows or Linux server side.
- **Mesher speed up for convergent/faceted/STL.** Mesh for convergent/faceted/STL geometry can be generated significantly faster.
- **Speed/accuracy of Smart PCB calculation improvement.** Calculation of analyses with Smart PCBs is improved now. The default value for the number of Tiles per longest side of PCB is increased from 100 to 300. More accurate results can be achieved faster with the new version using the new default value.
- **Export of FLOEFD fields to SCD5.** Steady state or transient pressure and temperature fields can be exported to Simcenter 3D using binary file format: SCD5.

- **SCD5 file as an input mesh for CGNS export.** You can export steady state or transient pressure and temperature fields to CGNS file using SCD5 mesh file as input data.
- **Export scenes in JT format.** FLOEFD scenes can be exported in JT file format.
- **Common color bar.** New common color bar is now available to compare graphics plot between different Simcenter software.
- **Repackaging Simcenter FLOEFD.** A streamlined offering of Simcenter FLOEFD products will be introduced in Q1 of 2024, consolidating its capabilities into a simpler set of purchasing and license options (see Figure 1).



The new packaging options will become available in the first quarter of 2024. The legacy modules will continue to be supported by Simcenter FLOEFD and are available for existing customers only to continue to use and to purchase or renew subscriptions as desired.

## Licensing

This release uses Siemens Advanced Licensing Technology (SALT) 2.2.0.0 with Mentor Standard Licensing (MSL) or Common Licensing Toolkit (CLT), mgcld/ugslmd vendor daemon and licenses.

When Simcenter FLOEFD starts it first checks for a CLT license, if it is not found then it checks for a MSL license. Only license features from one system can work at the same time.

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

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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 Siemens EDA 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](https://account.sw.siemens.com/licenses)

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

## Supported Platforms

- 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 8.8, SUSE SLES 12 SP5
- Microsoft Office 365, Microsoft Office 2019, Microsoft Office 2016, Microsoft Office 2013
- 8 GB RAM minimum, more recommended
- 2 GB of free hard disk space, more required for simulation models
- Localized languages: French, German, Japanese, Korean, Simplified Chinese, Russian.

## Compatible releases

- HyperLynx SI PI Thermal v2.11, v2.12 and v2.13
- CGNS file format 4.3 and hdf 1.14

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- Simcenter Nastran 2021.2, 2022.1, 2206, 2212, 2306 and 2312

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