



Simcenter™ Flotherm™ Release Highlights

Software Version 2404
April 2024

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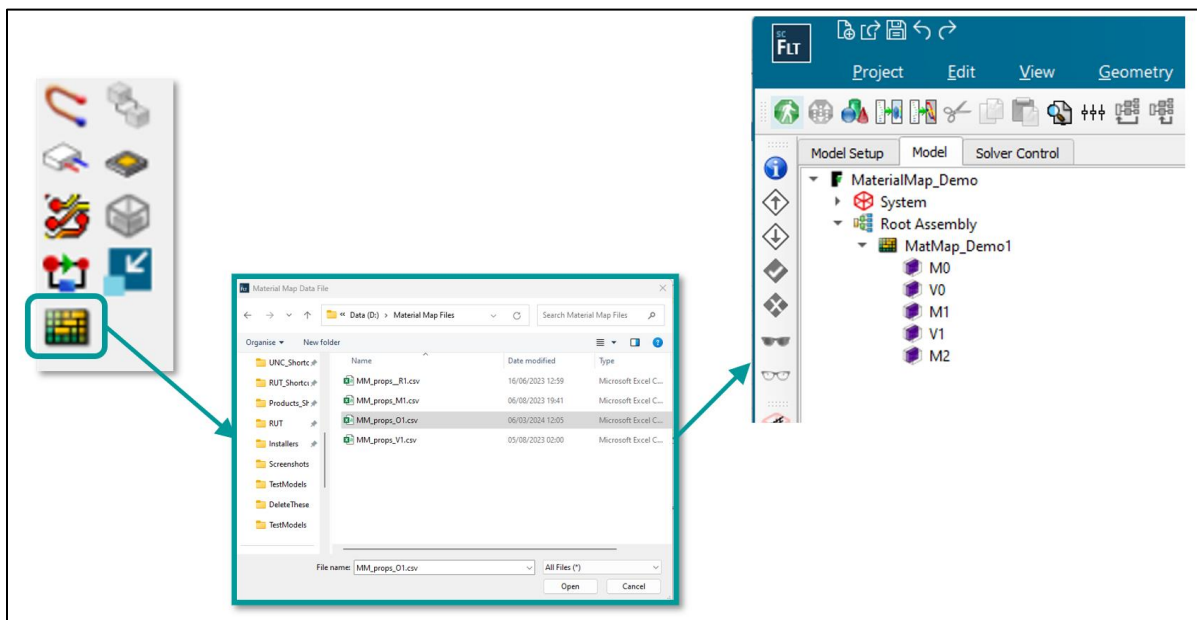
Introduction

This document provides a high-level summary of this release of Simcenter™ Flotherm™ software. 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.

New Features

The following new features are available in this release:

- **Model the Complexity – Material Map SmartPart.**
 - The Material Map SmartPart is a lightweight method to model high-fidelity representations of the material variations inside printed circuit boards, package substrates, and dies.
 - Create using SmartPart palette and import text file to describe Material Map



- Text file contains:
 - Header with version, units etc.
 - Series of Regions defined by size a location detailing full material properties on a tile by tile like basis.

```

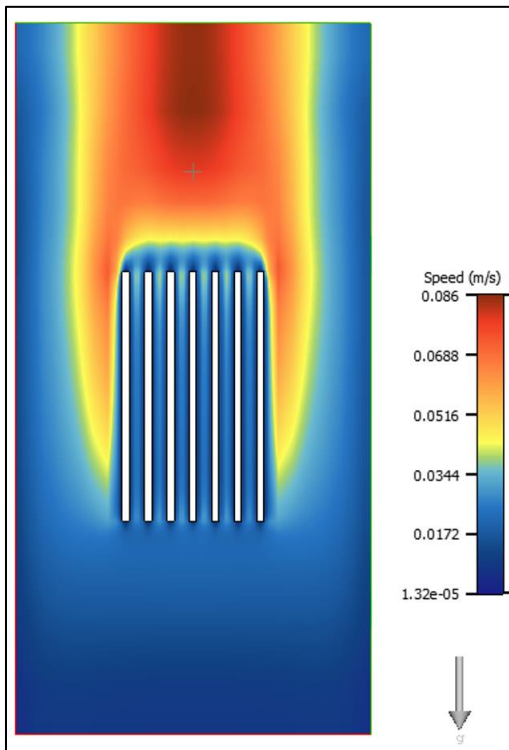
1  NAME,MATERIAL_MAP_DEMO
2  VERSION,1.0
3  NUMBER_OF_SF,8
4  ENCRYPTED,0
5  DISTANCE UNIT,mm
6  .REGION,Top
7  .REGIONSIZE
8  0,0.01,0,0.01,0,1e-06
9  .RESOLUTION
10 3,2
11 .FIELD,X_CONDUCTIVITY
12 400,400,400,1,1,1
13 .FIELD,Y_CONDUCTIVITY
14 400,400,400,1,1,1
15 .FIELD,Z_CONDUCTIVITY
16 400,400,400,1,1,1
17 .FIELD,SPECIFIC_HEAT
18 390,390,390,750,750,750
19 .FIELD,DENSITY
20 9000,9000,9000,2200,2200,2200
21 .REGION,Bottom
22 .REGIONSIZE
23 0,0.01,0,0.01,1e-06,3e-06
24 .RESOLUTION
25 2,4
26 .FIELD,X_CONDUCTIVITY
27 1,2.3222867,1.6274407,1,1,1,1,1
28 .FIELD,Y_CONDUCTIVITY
29 1,2.3222867,1.7346814,1,1,1,1,1
30 .FIELD,Z_CONDUCTIVITY
31 1,160.6,40.9,1,1,1,1,1
32 .FIELD,SPECIFIC_HEAT
33 750,606,714,750,750,750,750,750
34 .FIELD,DENSITY
35 2200,4920,2880,2200,2200,2200,2200,2200

```

- Full Material Map can be moved, rotated copied etc. but regions inside cannot.
- Tabular and graphical post processing available.
- **Model the Complexity – removal of restrictions with certain modeling workflows.**
 - Removed restriction on Embeddable BCI-ROM touching the solution domain or cutouts.
 - Removed grid restrictions from Power Map SmartPart – these no longer need to be within a single local grid space.

- **Post Processing**

- Added a new Blue-Yellow-Red color map to give a consistent approach across Simcenter tools.



Licensing

This release uses Mentor Standard Licensing (MSL) for the Siemens Advanced Licensing Technology (SALT) 2.4.0, mgcl/saltd vendor daemon and licenses.

SALT is a new Siemens licensing solution based on FlexNet licensing technology. SALT 2.4.0 requires FLEXnet license server running at version 11.19.0.1 or higher. 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>

If you are currently using the environment variable MGLS_LICENSE_FILE then you need to set a new environment variable SALT_LICENSE_SERVER with the same value. MGLS_LICENSE_FILE can remain set to support older versions.

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*

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 Siemens EDA Products*.

Product Installation

Since Simcenter Flotherm 2310 the installer no longer provides the option for a Volunteer only installation. To access the Volunteers functionality, install the whole software product.

Product Transition

Starting with Release 2404 there is a new set of license bundles offering access to a combination of software:

- 297640 Electronics Cooling Flexx 3 – NX
Gives access to Simcenter Flotherm, Simcenter Flotherm XT and Simcenter FLOEFD (NX) with Electronics Module.
- 297638 Electronics Cooling Flexx 3 – Creo
Gives access to Simcenter Flotherm, Simcenter Flotherm XT and Simcenter FLOEFD (CREO) with Electronics Module.

For further information, please contact your sales representative.

New Cloud-Based Documentation Access Since Simcenter Flotherm 2310 Release

Since the Simcenter Flotherm 2310 release an improved method to access your Siemens Digital Industries Software product documentation has been provided. The default option serves your product documentation from Support Center, giving you immediate access to the latest release-specific documentation, enhanced search of HTML and PDF files, and (if you use translated documentation) full multi-language search. This new method also eliminates the requirement to install product documentation as part of the local software installation.

For easy access, we offer an option to view Support Center documentation using a documentation proxy on your network. This documentation proxy removes the need for your

users to have a Support Center account or to log into Support Center to view documentation.

We understand that some customers use our products on restricted networks without internet access. You have the option to download the documentation and set up a Siemens Documentation Server to view the documentation package on your local network.

See “Configuring Documentation Access” in the *Simcenter Flotherm 2404 Installation Instructions* for instructions to set up the documentation proxy or the documentation server.

Supported Platforms

Supported Operating Systems (Full Software)

- Microsoft Windows 10 Version 22H2 (64 Bit Pro and Enterprise).
- Microsoft Windows 11 Versions 22H2 and 23H2 (64 Bit Pro and Enterprise).
- Microsoft Windows Server 2019 Version 1809, (64 Bit Standard Edition).
- Microsoft Windows Server 2022 (64 Bit Standard Edition)

Supported Operating Systems (Solver Only)

- Linux RHEL 7.8 x64
 - Please note that this will be the last version to support Linux RHEL 7.8 x64
- Linux RHEL 7.9x64
 - Please note that this will be the last version to support Linux RHEL 7.9 x64
- Linux RHEL 8.8 x64
- Linux SUSE SLES 12.5 x64
 - Please note that this will be the last version to support Linux SUSE SLES 12.5
 - Next version will Support SUSE SLES 15.5 x64.

Note that supported operating systems may change. For most up to date information please refer to Support Center documentation.

Localized Languages

- Japanese
- Simplified Chinese

Hardware Requirements

The following minimum hardware is required to run Simcenter Flotherm 2404:

- 64-bit capable AMD processor or an Intel processor with EM64T.
- 2 GB system memory (RAM) minimum, 8 GB recommended.
- Graphics card supporting hardware accelerated OpenGL version 2.0 or later.

Compatible releases

The following releases are compatible with Simcenter Flotherm 2404:

Link to HEEDS.

- HEEDS 2310

Note: To support a particular version of Simcenter Flotherm the portal setting in HEEDS need to be adjusted to use the appropriate Simcenter Flotherm files.

- In HEEDS go to File \ Options \ Analysis Portals.
- Select Simcenter Flotherm.
- Set "Solver Install" to correct location.
 - For Simcenter Flotherm 2404 the default location following installation is:
"C:\Program Files\Siemens\SimcenterFlotherm\2404\WinXP\bin\flotherm.bat"

Power Map Import.

- HyperLynx PI V8.2.1 through VX2.11.
 - **Note that VX2.12, VX2.13, and VX2.14 are not supported.**

File Imports and Exports

Supported ECAD Files (Import only via EDA Bridge)		
ODB++ Directory		Versions 7 and 8
ODB++ Archive	*.tar.gz, *.tgz, *.tar	Version 7 and 8
IDF	Board definition *.emn, *.bdf, *.brd, Component definition *.emp, *.idf, *.lib, *.pro	Version 2.0 and 3.0
Allegro ⁽¹⁾	*.floeda	PCB Designer 17.2 or later
APD ⁽¹⁾	*.floeda	Allegro Package Designer 17.2 or later
Boardstation ⁽¹⁾	*.floeda	Boardstation PCB 2005BST and 2006BSXE or later
CR5000 ⁽¹⁾	*.floeda	CR-5000 Board Designer 9.0 or later
Xpedition ⁽¹⁾	*.floeda	Xpedition Enterprise EEVX 1.1 or later

(1) Plugins for EDA software to create *.floeda files available within the installation directory .\SimcenterFlotherm\2404\eda_interfaces.

Supported CAD Files (Via MCAD Bridge)		
Importing CAD Files		
Siemens NX	*.ptr	Up to version 2212
Siemens Solid Edge	*.prt, *.asm	Up to version 2212
Parasolid	*.x_t, *.x_b, *.xmt_txt, *.xmt_bin	Up to version 35.0
JT	*.jt	Version 9.5
PLMXML	*.plmxml	Schema version 6
XTXML	*.xtxmla	Exported from Simcenter Flotherm XT 2304 Exported from Simcenter Flotherm Package Creator up to version 2310
IGES	*.iges	Up to version 5.3
STEP	*.stp	AP203, AP214, AP242
PTC Creo	*.prt.*, *.asm.*	Pro/E 2000i to Creo Parametric 8.0
CATIA V4	*.model, *.exp	Version 4.1.5 to 4.2.5
CATIA V5	*.CATPart, *.CATProduct	Up to V5-6R2021 SP4
SolidWorks	*.sldprt, *.sldasm	Versions 1999 to 2022
ACIS	*.sat, *.sab	Up to version 2021.1.0
Exporting CAD Files		
Parasolid	*.x_t, *.x_b, *.xmt_txt, *.xmt_bin	Version 35.0
JT	*.jt	Version 9.5
PLMXML	*.plmxml	Schema version 6
IGES	*.iges	Version 5.3
STEP	*.stp	AP242
CATIA V4	*.model, *.exp	Version 4.1.9

Support Information

A support contract with Siemens is a valuable investment in your organization's success. With a support contract, you have 24/7 access to the comprehensive and personalized Support Center portal.

Support Center features an extensive knowledge base to quickly troubleshoot issues by product and version. You can also download the latest releases, access the most up-to-date documentation, and submit a support case through a streamlined process.

support.sw.siemens.com/

If your site is under a current support contract but you do not have a Support Center login, register here:

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Simcenter Community

Join Simcenter community of experts to ask questions, solve issues, help others, and submit product ideas.

[Simcenter Flotherm \(siemens.com\)](#)