



POWERING INNOVATION THAT DRIVES HUMAN ADVANCEMENT

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# Download Center Combined Product Documentation



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# Table of Contents

<b>1. Understanding the Combined Info Documentation</b> .....	1
<b>2. Selecting a Package</b> .....	3
<b>3. Download Center Info - Acoustics</b> .....	5
<b>4. Download Center Info - Automated Installer</b> .....	13
<b>5. Download Center Info - CADNexus</b> .....	29
<b>6. Download Center Info - CAE Data Interfaces for EKM</b> .....	31
<b>7. Download Center Info - Collaboration</b> .....	33
<b>8. Download Center Info - Discovery</b> .....	35
<b>9. Download Center Info - Documentation</b> .....	37
9.1. Installing Local Help .....	38
<b>10. Download Center Info - Dynamic ROM Preprocessing for Mechanical</b> .....	41
<b>11. Download Center Info - Electronics</b> .....	43
<b>12. Download Center Info - Electronics Documentation</b> .....	53
<b>13. Download Center Info - EMC Plus and Charge Plus</b> .....	55
<b>14. Download Center Info - Enterprise Licensing</b> .....	59
<b>15. Download Center Info - SCADE License Manager</b> .....	61
<b>16. Download Center Info - Fluids</b> .....	63
<b>17. Download Center Info - Fluids and Structures</b> .....	67
<b>18. Download Center Info - Forming</b> .....	75
<b>19. Download Center Info - GCC Compiler</b> .....	77
<b>20. Download Center Info - ISO</b> .....	79
<b>21. Download Center Info - Language Packs</b> .....	87
21.1. Ansys Language Pack Local Help Installation .....	88
21.2. Language Pack Known Issues and Limitations .....	91
21.2.1. Displaying Languages .....	91
21.2.2. Uninstalling Language Packs .....	91
21.3. Included Translated Products .....	92
<b>22. Download Center Info - License Manager</b> .....	97
<b>23. Download Center Info - Materials</b> .....	99
<b>24. Download Center Info - Granta MI Enterprise Documentation</b> .....	105
<b>25. Download Center Info - Materials Supplementary</b> .....	107
<b>26. Download Center Info - Modal Field ROM Extraction for Mechanical to Twin Builder</b> .....	111
<b>27. Download Center Info - Modeler Files For CATIA v5</b> .....	113
<b>28. Download Center Info - multiPlas</b> .....	115
<b>29. Download Center Info - nCode</b> .....	117
<b>30. Download Center Info - Nuhertz Filter Solutions</b> .....	119
<b>31. Download Center Info - optiSLang</b> .....	121
<b>32. Download Center Info - Perceive EM</b> .....	123
<b>33. Download Center Info - Photonics</b> .....	125
<b>34. Download Center Info - PrepPost</b> .....	129
<b>35. Download Center Info - Rocky</b> .....	133
<b>36. Download Center Info - ROM Builder Preprocessing for Fluent</b> .....	137
<b>37. Download Center Info - RSM</b> .....	139
<b>38. Download Center Info - Safety and Cybersecurity</b> .....	141
<b>39. Download Center Info - Embedded Software</b> .....	143
<b>40. Download Center Info - SCADE Certification Data</b> .....	147
<b>41. Download Center Info - SCADE Compiler Verification Kit</b> .....	153
<b>42. Download Center Info - SCADE Rapid Prototyper</b> .....	155
<b>43. Download Center Info - SpaceClaim</b> .....	159

<b>44. Download Center Info - Optical .....</b>	<b>161</b>
<b>45. Download Center Info - SPM Extraction for Mechanical to Twin Builder .....</b>	<b>171</b>
<b>46. Download Center Info - Optical Libraries .....</b>	<b>173</b>
<b>47. Download Center Info - Static ROM Preprocessing for AEDT Maxwell and Icepak .....</b>	<b>175</b>
<b>48. Download Center Info - Static ROM Preprocessing for Mechanical .....</b>	<b>177</b>
<b>49. Download Center Info - Statistics on Structures .....</b>	<b>179</b>
<b>50. Download Center Info - Structures .....</b>	<b>181</b>
<b>51. Download Center Info - Twin Builder Linux Redistributable .....</b>	<b>187</b>
<b>52. Download Center Info - Twin Builder Model Export for Fluent .....</b>	<b>191</b>
<b>53. Download Center Info - Twin Builder Modelica Libraries .....</b>	<b>197</b>
<b>54. Download Center Info - Twin Deployer .....</b>	<b>199</b>
<b>55. Download Center Info - Verification Manual Files - Additive Manufacturing .....</b>	<b>201</b>
<b>56. Download Center Info - Verification Manual Files - Design .....</b>	<b>203</b>
<b>57. Download Center Info - Verification Manual Files - CFX .....</b>	<b>205</b>
<b>58. Download Center Info - Verification Manual Files - Forte .....</b>	<b>207</b>
<b>59. Download Center Info - Verification Manual Files - Fluent .....</b>	<b>209</b>
<b>60. Download Center Info - Verification Manual Files - LS-Dyna .....</b>	<b>211</b>
<b>61. Download Center Info - Verification Manual Files - Mechanical .....</b>	<b>213</b>

---

# List of Tables

21.1. Included languages by pack: ..... 87  
21.2. Products with translated documentation: ..... 92



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# Chapter 1: Understanding the Combined Info Documentation

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This document contains the info docs for all current release packages.

## **Ansys Release:**

2024 R1





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# Chapter 2: Selecting a Package

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## Why Select a Specific Package?

### Primary Packages

If one of the primary packages contains everything you need, select this option. This will give you the smallest download size.

Click the  icon, associated with each selection, for detailed iso and package contents.

### ISO Images

Select ISO images, if you need a combination of any of these packages:

- Structures
- Fluids
- PrepPost
- Discovery

---

#### **Note:**

The Ansys Electronics product is not included in the ISO images. If you wish to install the Electronics package, download the stand-alone package from **Customer Portal > Current Release > Primary Packages**.

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# Chapter 3: Download Center Info - Acoustics

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## Sound - Package Overview

Ansys Sound is a post-processing tool that enables sounds to be analyzed and optimized with sound quality criteria and listening tests. Innovative time-frequency analysis and processing functions are available for isolating and modifying various sound components, and to assess the influence on perception. Ansys Sound can also be used to reproduce the 3D sound in-simulator and in-vehicle, including tool to tune Active Sound for ICE or EV.

This package is composed of several stand-alone software applications, each of them having its own installation package. You should download and install the packages for each product in Ansys Sound separately

For information on downloading and installing the Ansys Sound - SAS package, see [Ansys Sound - SAS Package Overview \(p. 6\)](#) below.

For information on downloading and installing the Ansys Sound - JLT package, see [Ansys Sound - JLT Package Overview \(p. 8\)](#) below.

For information on downloading and installing the Ansys Sound - CSS package, see [Ansys Sound - CSS Package Overview \(p. 9\)](#) below.

For information on downloading and installing the Ansys Sound - VRS package, see [Ansys Sound - VRS Package Overview \(p. 10\)](#) below.

For information on downloading and installing the Ansys Sound - ASDforEV package, see [Ansys Sound - ASDforEV Package Overview \(p. 11\)](#) below.

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Name:

SOUND<app>\_2024R1\_<platform>.zip

<app>= Application Name

<platform> = WINX64 (for Windows x64)

## Platform Availability and Package Format:

Windows x64 ... zip format

## Applications Supported by this Package:

- Ansys Sound – Analysis & Specification
- Ansys Sound – Jury Listening Test
- Ansys Sound – Car Sound Simulator
- Ansys Sound – VR Sound
- Ansys Sound – ASD for EV

## Required License Manager:

Ansys License Manager

## Also Included in this Package:

Ansys License Manager

## You may also want this Package:

- Ansys Release Documentation
- Ansys Structures Package
- Ansys Fluids Package
- Ansys Fluids and Structures Package

## Ansys Sound - SAS Package Overview

This package contains Ansys Sound –Analysis & Specification (SAS). This program is an acoustic interactive tool for analysis, editing, sound quality and sound design. The advanced time-frequency analysis features give the possibility to “see what you hear” and “hear what you see”. It offers conventional analysis functions, allowing users to study signals in both time domain and frequency domain, as well as featuring innovative time-frequency analysis and processing functions for isolating and modifying various components of the sound to assess their influence on perception.

SAS is the software module in Ansys Sound solutions for sound design and sound analysis, and it can link sound to the other modules and applications like Jury Listening Test, driving simulators, flight simulators and virtual reality platforms. SAS paves the way to target sound definition, brand sound creation, subjective and objective testing, component separation, troubleshooting and sound dataset preparation.

---

## **Ansys Release:**

2024 R1

## **Updates:**

None Available

## **Package Name:**

SOUNDSAS\_2024R1\_<platform>.zip

<platform> = WINX64 (for Windows x64)

## **Platform Availability and Package Format:**

Windows x64 ... zip format

## **Applications Supported by this Package:**

- Ansys Sound – Analysis & Specification

## **Required License Manager:**

Ansys License Manager

## **Also Included in this Package:**

Ansys License Manager

## **You may also want this Package:**

- Ansys Release Documentation
- Ansys Structures Package
- Ansys Fluids Package
- Ansys Fluids and Structures Package
- Ansys Sound – Jury Listening Test
- Ansys Sound – Car Sound Simulator
- Ansys Sound – VR Sound
- Ansys Sound – ASD for EV

## Ansys Sound - JLT Package Overview

This package contains Ansys Sound –Jury Listening Tests (JLT). This program is made for the measurement of sound perception through jury testing experiments. Jury Listening Test was designed for technicians, engineers, and experts in audio and acoustics, as well as for managers, marketing, and communications professionals whatever their level of technical knowledge in acoustics.

With Jury Listening Test, you can reliably get valuable and precise user feedback about the sound of your products including sound quality evaluation, sound preference, selection and validation of sound design solutions, positioning with respect to competitors' sounds, unpleasantness, or comfort studies.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

SOUNDJLT\_2024R1\_<platform>.zip

<platform> = WINX64 (for Windows x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

- Ansys Sound – Jury Listening Tests

### Required License Manager:

Ansys License Manager

### Also Included in this Package:

Ansys License Manager

### You may also want this Package:

- Ansys Release Documentation
- Ansys Structures Package
- Ansys Fluids Package

- 
- Ansys Fluids and Structures Package
  - Ansys Sound –Analysis & Specification
  - Ansys Sound – Car Sound Simulator
  - Ansys Sound – VR Sound
  - Ansys Sound – ASD for EV

## **Ansys Sound - CSS Package Overview**

This package contains Ansys Sound –Car Sound Simulator (CSS). This program is advanced real-time audio synthesis tool for the generation of car-related sounds (powertrain, aerodynamic noise, rolling noise, screeching tires, traffic, ...). 3D sound processing allows an immersive rendering of each sound source. It is designed to receive simulation data through a network, being integrated within driving simulators and virtual reality platforms. Its sound database is open, meaning that customized car-related sounds can be created and integrated.

### **Ansys Release:**

2024 R1

### **Updates:**

None Available

### **Package Name:**

SOUNDCSS\_2024R1\_<platform>.zip

<platform> = WINX64 (for Windows x64)

### **Platform Availability and Package Format:**

Windows x64 ... zip format

### **Applications Supported by this Package:**

- Ansys Sound – Car Sound Simulator

### **Required License Manager:**

Ansys License Manager

### **Also Included in this Package:**

Ansys License Manager

## You may also want this Package:

- Ansys Release Documentation
- Ansys Structures Package
- Ansys Fluids Package
- Ansys Fluids and Structures Package
- Ansys Sound – Analysis & Specification
- Ansys Sound – Jury Listening Test
- Ansys Sound – VR Sound
- Ansys Sound – ASD for EV

## Ansys Sound - VRS Package Overview

This package contains Ansys Sound –VR Sound (VRS). This program is a software tool for the real-time playback and spatialization of sound sources.

It allows the creation of sound scenes in virtual reality platforms and in simulators, in interaction with the user, and highly contributes to the improvement of the realism and immersion feelings.

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Name:

SOUNDVRS\_2024R1\_<platform>.zip

<platform> = WINX64 (for Windows x64)

## Platform Availability and Package Format:

Windows x64 ... zip format

## Applications Supported by this Package:

- Ansys Sound – Car Sound Simulator



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## Required License Manager:

Ansys License Manager

## Also Included in this Package:

Ansys License Manager

## You may also want this Package:

- Ansys Release Documentation
- Ansys Structures Package
- Ansys Fluids Package
- Ansys Fluids and Structures Package
- Ansys Sound –Analysis & Specification
- Ansys Sound – Jury Listening Test
- Ansys Sound – Car Sound Simulator
- Ansys Sound – ASD for EV

## Ansys Sound - ASDforEV Package Overview

This package contains Ansys Sound –Active Sound Design for EV (ASDforEV). This program is the solution for in-vehicle sound design and tuning dedicated to anticipate, test and validate the future soundscape of vehicles in real driving conditions and make sure that they will provide the optimal sound experience.

Ansys Sound - ASDforEV enables the live playback of sets of sounds through the vehicle’s audio system for all types of designed vehicle sounds for driver and passengers:

- Event-related sounds for Ambiance and HMI (welcome sequence, turn indicator sound, unfastened seatbelt alarm, etc.)
- Engine Sound Enhancement (ESE), also known as Active Sound Design (ASD), to enhance the perception of the native ICE engine sounds
- EV dynamic/active sound, referred to as “Speed/Acceleration Feedback” (SAF) sound
- Advance Driver-Assistance System (ADAS) sounds for better driver awareness, including 3D rendering for the localization of events

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Name:

SOUNDSEV\_2024R1\_<platform>.zip

<platform> = WINX64 (for Windows x64)

## Platform Availability and Package Format:

Windows x64 ... zip format

## Applications Supported by this Package:

- Ansys Sound – Active Sound Design for EV

## Required License Manager:

Ansys License Manager

## Also Included in this Package:

Ansys License Manager

## You may also want this Package:

- Ansys Release Documentation
- Ansys Structures Package
- Ansys Fluids Package
- Ansys Fluids and Structures Package
- Ansys Sound – Analysis & Specification
- Ansys Sound – Jury Listening Test
- Ansys Sound – Car Sound Simulator
- Ansys Sound – VR Sound

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# Chapter 4: Download Center Info - Automated Installer

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## Automated Installer Package Overview

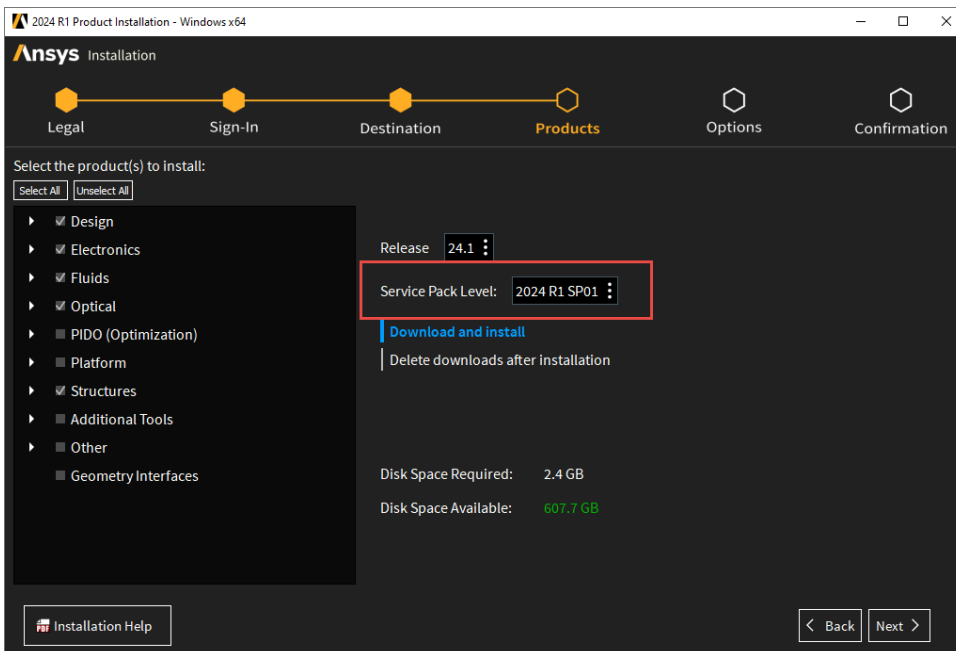
The Ansys Automated Installer provides a product installation experience that is optimized for speed and disk space usage. The initial download of this installer is much smaller and occurs much faster than other options. This installer reduces the download and installation times by simultaneously downloading and extracting only the selected applications. This installer is also less confusing than other options since the applications that are selected by default will be only those for which there are licenses associated with the Ansys account that is used to sign in.

To review the service pack documentation, go to the [Service Pack Details \(p. 18\)](#) section of this guide.

---

### Note:

If you are installing a service pack, the Automated Installer product selection page provides a dropdown menu that allows you to choose any service pack available for the current release.

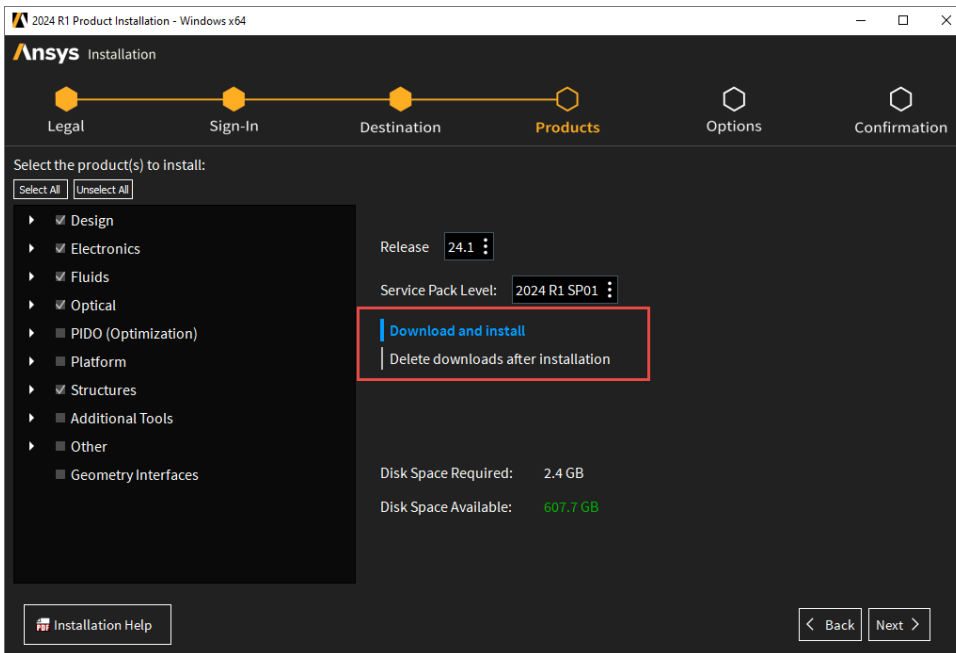


For more information on using the Ansys Automated Installer, visit the **Ansys Help** pages and click **Installation>Ansys Automated Installer Guide**.

---

**Note:**

To share packages with other users, download the appropriate packages to the download directory defined during the installation by selecting the **Download and Install** option from the Automated Installer product selection page. Once downloaded, you can share them manually from this directory. Do not select the **Delete downloads after installation** option. This option deletes the packages from the download directory after the initial installation is complete.



---

**Ansys Release:**

2024 R1

**Updates:**

None Available

**Package Name:**

AnsysInstaller.<exe/sh>

**Products Available for Windows Installations:**

- Ansys Discovery
- Ansys SpaceClaim

- 
- Ansys Sherlock
  - Ansys Autodyn
  - Ansys LS-DYNA
  - Ansys CFD-Post only
  - Ansys CFX (includes Ansys CFD-Post)
  - Ansys Chemkin
  - Ansys Model Fuel Library (Encrypted)
  - Ansys Reaction Workbench
  - Ansys EnSight
  - Ansys FENSAP-ICE
  - Ansys Fluent (includes Ansys CFD-Post)
  - Ansys Forte
  - Ansys Polyflow (includes Ansys CFD-Post)
  - Ansys TurboGrid
  - Ansys ICEM CFD
  - Ansys Motion
  - Ansys Aqwa
  - Ansys Speos
  - Ansys Speos HPC
  - Ansys Speos for NX 1980
  - Ansys Speos for NX 2007
  - Ansys Speos for NX 2206
  - Ansys Speos for NX 2212
  - Ansys Speos for NX 22306
  - Ansys optiSLang
  - Ansys Customization Files
  - Ansys Mechanical Products
  - Ansys Additive

- Ansys Material Calibration App
- Ansys Distributed Compute Services
- Ansys Icepak (includes Ansys CFD-Post)
- Ansys Remote Solve Manager Stand Alone Services
- Ansys Ansys Sound: SAS
- ACIS Geometry Interface
- AutoCAD Geometry Interface
- CATIA, Version 4 Geometry Interface
- CATIA, Version 5 Geometry Interface
- CATIA, Version 6 Geometry Interface
- Creo Elements/Direct Modeling Geometry Interface
- Creo Parametric Geometry Interface (formerly Pro/ENGINEER)
- Inventor Geometry Interface
- JTOpen Geometry Interface
- NX Geometry Interface
- Parasolid Geometry Interface
- Solid Edge Geometry Interface
- SOLIDWORKS Geometry Interface

## **Products Available for Linux Installations:**

- Ansys Autodyn
- Ansys LS-DYNA
- Ansys CFD-Post only
- Ansys CFX (includes Ansys CFD-Post)
- Ansys Chemkin
- Ansys Model Fuel Library (Encrypted)
- Ansys Reaction Workbench
- Ansys EnSight
- Ansys FENSAP-ICE

- 
- Ansys Fluent (includes Ansys CFD-Post)
  - Ansys Forte
  - Ansys Polyflow (includes Ansys CFD-Post)
  - Ansys TurboGrid
  - Ansys ICEM CFD
  - Ansys Motion
  - Ansys Aqwa
  - Ansys Speos HPC
  - Ansys optiSLang
  - Ansys Customization Files
  - Ansys Mechanical Products
  - Ansys Distributed Compute Services
  - Ansys Icepak (includes Ansys CFD-Post)
  - Ansys Remote Solve Manager Stand Alone Services
  - ACIS Geometry Interface
  - CATIA, Version 5 Geometry Interface
  - NX Geometry Interface
  - Parasolid Geometry Interface

## **Required License Manager:**

Ansys License Manager

## **You may also want this Package:**

- Ansys License Manager

## Service Pack Details

This document contains service pack update descriptions for Ansys products included in the unified installation package. Each service pack release for 2024 R1 is listed separately, along with the related issues that have been addressed.

---

### Note:

The current service pack is included in the **Automated Installer** located at the top of the **Download Center Current Releases** page. To install the latest service pack, download and run the Automated Installer package. To review the Automated Installer documentation, go to the **Automated Installer** section above.

---

## Ansys Release:

2024 R1

## Service Pack:

2024 R1.05

## Release Date:

12/11/2024

## Installation Prerequisites:

Ansys Release 2024 R1 must first be installed before installing service pack 2024 R1.05. Detailed product installation instructions are available in the Ansys, Inc. Installation Guide for Windows and Ansys, Inc. Installation Guide for Linux.

## Issues Addressed (by Product):

### Licensing

- Handling LOST in HPC Parametric context where on reconnection consumed more licenses without resetting to start from beginning count. (1041719)
- Cannot record correct user name if it is not correctly configured in /etc/passwd which made it harder to track the usage on the server. (1134037)
- Queuing to check the FNP queued status before reconfiguring to use pool checkout. (1152051)
- License were underused in case of queued checkout getting into re-checkout mode after server restart. (1110627)

## Service Pack:

2024 R1.04



---

## Release Date:

7/17/2024

## Installation Prerequisites:

Ansys Release 2024 R1 must first be installed before installing service pack 2024 R1.04. Detailed product installation instructions are available in the Ansys, Inc. Installation Guide for Windows and Ansys, Inc. Installation Guide for Linux.

## Issues Addressed (by Product):

### Licensing

- This patch corrects the license refresh issue that occurred during long running jobs in the Shared Web work flow. (1040744)

## Service Pack:

2024 R1.03

## Release Date:

5/1/2024

## Installation Prerequisites:

Ansys Release 2024 R1 must first be installed before installing service pack 2024 R1.03. Detailed product installation instructions are available in the Ansys, Inc. Installation Guide for Windows and Ansys, Inc. Installation Guide for Linux.

## Issues Addressed (by Product):

### Chemkin

- An issue discovered on Japanese Windows prevented Chemkin from operating properly. This issue has been resolved in this service pack. (1005796)

### Licensing

- Corrected the issue where the LM\_PROJECT settings was not communicated to the serves in certain checkout calls. (999332)
- Corrected the issue where the Ansys Elastic Licensing environment variable "ANSYS\_ELASTIC\_PROJECT" was not honored. (1012593)

### Mechanical

### Imported Coordinate Systems:

- In release 2024 R1, when you saved a database that included imported coordinate systems from either Model Assembly or External Model, the application automatically added data to the coordinate system definition. This resulted in prolonged save/resume times as well as increased file sizes. This issue has been fixed since 2024 R1 SP2.

### **Named Selections for Assembled Systems:**

- An issue exists in releases prior to 2024 R1 SP03 when assembling Mechanical systems in a downstream analysis. Named Selections do not properly transfer to downstream systems if you make updates to an upstream system and re-read the updates in the downstream system. Instead of rewriting the Worksheet in the downstream system with updated rows of Named Selections, the application adds new to the Worksheet.

This issue does not affect the entities selected by the Named Selections, however, if a large number of new rows of Named Selections are added to the Worksheet as a result of upstream changes, larger and larger amounts of memory is required.

Ansys has corrected this issue, however, if you open a project saved in a release prior to 2024R1 SP03, Ansys recommends that you make a manual change in the upstream system, such as adding and then deleting a Named Selection and then re-read the upstream data in the downstream system to correct any unnecessary worksheet entries.

### **Meshing**

- A crash may occur during meshing when utilizing the Automatic (PrimeMesh), Layered Tetrahedrons, Pull, Mesh Workflows and Stacker methods, due to an error in validating all supported meshing licenses. The release of 2024R1SP3 addresses this issue by implementing a fix to handle all supported meshing license keys. (989171)

### **Thermal Desktop**

2024 R1 Patch (1/10/2024)

- Fix disconnection of Tee and ports when multiediting pipes (12-18-23)
- Embedded solids calcs updates for putInVTree (12-20-23)
- Add ACCELCON for conversion units for acceleration for GEEF (1-8-24)
- Fix HCH Choke Flow Hysteresis dwg file issue released in 23.2 (1-10-24)
- Fix csr conversion to xlsx when > 1 case set is selected (1-10-24)
- Updates to the SaveX Reader (1-10-24)
- Fix Convection Conductors for PSIG units (1-14-24)
- QMAP fix for unit changes of Capacitance and CSG (also plotting CSG on model) (1-14-24)

2024 R1.03 (3/19/2024)

- Updates to TD Direct (1-14-24)

- 
- Case 34052 Add update of Domain concrete IDs before processing symbols so that Pipes have the centerlines set from the lineDomain into the lines array. (2-6-24)
  - Correct edit forms for Ties when editing defaults to prevent changes in type and allow changes when there are no ids (as a default would have) (2-14-24)
  - Check all NG-Pipe register to call updatePipe if changed. (2-14-24)
  - Fix tie edit forms for defaults issues (2-14-24)
  - Fix QuadraticTriElement edge markers wireframe Case 34397 (2-14-24)
  - Case 34654 - Not displaying tie comments in compartment bay form when no ERN tie is present (unchecked ERN node box). (3-13-24)
  - CASE 34665 - clean up RcCheckConnect command for pipe -port -path connections that get corrupted in older versions. (3-13-24)

## Service Pack:

2024 R1.02

## Release Date:

3/20/2024

## Installation Prerequisites:

Ansys Release 2024 R1 must first be installed before installing service pack 2024 R1.02. Detailed product installation instructions are available in the Ansys, Inc. Installation Guide for Windows and Ansys, Inc. Installation Guide for Linux.

## Issues Addressed (by Product):

### Discovery

Discovery: Parameters Improvements

- A problem has been fixed in which Discovery could not produce a solution after a parameter was updated, but it behaved as though the solution was successful. (946490)
- View controls you set on the Welcome panel are now passed properly to the Navigation > Mouse Mapping settings in the Settings panel. (976923)

### Licensing

- The shared web roaming license checkouts were not honoring the PROJECT or TEAM values set. (974448)
- The HPC\_PARALLEL checkout was not failing over to the second preference set. (975594)
- The HPC\_PARALLEL counts when splitting anshpc\_pack checkouts. (975435)

- ansyslm\_report was not working with lmutil not in the licensing/winx64 directory. (981299)
- Backfit shared web local license caching reset. (970588)
- FNP servers processed as sent by client. (980295)
- Bulk AND was not releasing the checked out keys if one of them failed in an upfront HPC parameteric use case. (987488)

### **Mechanical**

- The issue of the application intermittently not solving when you paste (**Paste from Clipboard** option) objects that use remote points between Mechanical sessions has been resolved. Objects associated with this correction include joints, springs, beam connections, point masses, bearings, moment loads, pretension bolt loads, remote forces, and remote displacements. (860155)
- The issue associated with inaccurate memory allocation that caused the application to close when writing imported external load data, which includes a substantial number of time steps, to the input file has been corrected. The application now allocates the appropriate memory requirements and the input file writes properly. (965270)

### **optiSLang**

- A licensing bug that caused the signal MOP to require an Enterprise license was fixed. (937838)
- LightTrans/VirtualLab was removed from optiSLang. (958947)
- optiSLang About Dialog in Workbench was updated to use proper images. (940806)
- There was an issue where an OMDB with an MOP import into oSP3D caused a crash. This bug has been fixed. (920474)
- Fixed an issue where the remove command would remove a node, but also return an error message. (965660)
- Fixed an issue with path node switching after auto-relocate. (930147)
- When using "Save as", if the Reference File setting is "Keep in separate directory", the .opr file will now be copied to the new directory.
- (982641)
- Fixed an issue where MOP3 FMU export was missing a library on Linux. (957107)
- Fixed an issue on DIM GP signal settings where clicking the apply button would revert the output compression method back to default. (925015)
- Fixed an issue with ETK variables table where base path node would be blank for centrally registered files and users could not select centrally registered files. (980765)
- The library for The Product Instance Manager (PIM) has been updated. (970530)
- In the Optic Studio Connector, you can now use any decimal separator. (922605)

- 
- When using the reference files directory functionality, if multiple files have the same name, an additional sub-directory is now created for each file and an additional warning is posted in the message log. (981669)
  - Updated the Interfaces and Customizations help documentation. (972172)
  - Added Ansys Web Generation Wizard to optiSLang. (952924)

For this item there are the following Known Issues and Limitations:

– Project Setup:

Placeholder type "List of strings" not supported

– Project Monitoring:

Actor Log shows multiline messages in single line

Download of result files not supported

Fine-granular execution control not supported

(Design Point) Visualization

- Fully resets on each update. Consider switching Auto-Update to Off

Status Overview

- Does not react to node/system selection in the workflow component tree
- Context menu actions for fine-granular execution control do not work
- Fully resets on each update. Consider switching Auto-Update to Off

App documentation not accessible in App monitoring UI

– General:

No Linux support

## Speos

- CPU / GPU behavior alignment:
  - Better CPU management of Direct Simulations containing a Human Eye Sensor. Rays with no interaction in the scene are now correctly integrated in the sensor. (966834)
  - Better GPU management of Simulations containing a Camera Sensor with a Speos Lens System Distortion File V2. CPU and GPU spectral irradiance maps now provide the same results. (951805)
- Physical Camera Sensor: placing geometries behind a Physical Camera Sensor no longer spoils the simulation results. (967629)
- Speos now displays a warning whenever a simulation contains a Surface Source defined in Candela with a 0° Lambertian angle as the situation is not physically correct. (976930)

- Inverse Simulations now display a warning message when your system is not correctly set due to sources incorrectly defined (IN / OUT) and no filtering face added (Out Path Faces), according to the location of the sensor. (977666)
- Speos Optimization now works correctly when Optical Part Design (OPD) geometries are used in simulation. Before, the optimization did not consider the OPD geometries from the iteration 2. (977205)

### **Speos for NX**

- CPU / GPU behavior alignment:
  - Better CPU management of Direct Simulations containing a Human Eye Sensor. Rays with no interaction in the scene are now correctly integrated in the sensor. (966834)
  - Better GPU management of Simulations containing a Camera Sensor with a Speos Lens System Distortion File V2. CPU and GPU spectral irradiance maps now provide the same results. (951805)
- Light Expert Sensor Group containing Irradiance Sensors defined as data separated by sequence now generates correct XMP results. (936954)
- Speos for NX now displays a warning whenever a simulation contains a Surface Source defined in Candela with a 0° Lambertian angle as the situation is not physically correct. (976930)
- Inverse Simulations now display a warning message when your system is not correctly set due to sources incorrectly defined (IN / OUT) and no filtering face added (Out Path Faces), according to the location of the sensor. (977666)

### **Service Pack:**

2024 R1.01

### **Release Date:**

2/7/2024

### **Installation Prerequisites:**

Ansys Release 2024 R1 must first be installed before installing service pack 2024 R1.01. Detailed product installation instructions are available in the Ansys, Inc. Installation Guide for Windows and Ansys, Inc. Installation Guide for Linux.

### **Issues Addressed (by Product):**

#### **Additive Manufacturing**

- A screen resolution issue affecting ACT extensions if your graphics resolution scale is not set to 100% has been fixed. (910628) Note that if you still experience screen issues, you may need to set specific resolution settings for the Mechanical application as outlined here for the Workbench application: [Using 4K Displays with Workbench](#) .

#### **BladeModeler**

- 
- The "+" tab (next to SIMULATION) no longer appears when the BladeBuilder addin is enabled in Discovery.

## Discovery

### Discovery: Parameters Improvements

- When parameters are set to update automatically, updating the current defined variation for a fluid flow simulation updates the fluid as expected. (893045)
- When you make a change that should not require confirmation, Discovery no longer prompts you to confirm your action before it executes the action. (928768)
- When parameters are set to update automatically, updating a driving dimension updates the geometry as expected. (934223)

### Discovery: Monitors Improvements

- Monitor values no longer disappear when you navigate between stages. (961293)
- Mesh quality monitors, which are invalid for polyhedral meshing, no longer block the solution of polyhedral mesh. (937251)
- Details monitors are reset as expected if you abort a solution and then re-solve. (940825)
- Radiative heat flux monitor results (Min, Max, and Avg) are consistent in cases where the fluid side of a fluid-solid interface is on the plus side of the underlying child interface zone. (946205)

### Discovery: Other Improvements

- Performance of Hide others has been greatly improved for large assemblies. (929313)
- You can use scripting to create a spring connection between a face and a datum point. (954031)
- An error no longer occurs after you perform many undo operations immediately prior to opening a new document. (940186)

## DPF

- Integrate LIEF library to replace patchelf (947999)
- Rebuild DPF Composites (Linux only) (967349)

## Fluent

- Corrected handling of double-sided walls in VOF-to-DPM and DPM-to-VOF transitions
- Corrected stiff chemistry solver robustness issue inside Fluent's GPU solver
- Provided workaround for hard-stop when variable CP is used with ideal gas in Fluent's GPU solver. With the workaround, the solver will run, but assumes a constant Cp approximation when evaluating static temperature and static pressure at pressure inlets.
- Removed residual jump after restart from hybrid initialization in Fluent's GPU solver

- Disabled SBES (Stress-Blended Eddy Simulation) with any KE model (Standard, Realizable K-Epsilon). This combination is not supported for Fluent's GPU solver. Any SBES case with KE models will be run as SBES with KO model with the conversion being printed in the terminal.

### **Fluent Meshing**

- Corrected an unrecoverable error that could occur when using Transform Volume Mesh with a periodic mesh consisting of multiple regions with the same centroid
- Corrected an unrecoverable error when Hexcore volume meshing is used around a fully-enclosed (i.e. box-in-box) Multizone region.
- Robustness improvements in thin mesh creation with the Thin Volume Meshing (β) task

### **Licensing**

- Corrected an overconsumption of products when using Shared Web technology (961017)
- Corrected an overconsumption of license keys/products with Electronics, Speos and Lumerical applications (961017, 965998, 966689, 941535)
- Corrected license handling with multiple applications consuming licenses in parallel with Shared Web workflow (923705)
- Corrected a license performance issue with WorkBench startup when using Shared Web technology (929445)
- Corrected licensing layer so that it did not depend on the FNP LM Server settings when using borrowed FNP licenses (936763)
- Corrected handling user names with special characters when using Elastic technology (937941)
- Corrected Applications not going into Timeout mode when disconnected with Elastic technology (963077)

### **Mechanical**

- The DesignLife Add-on is now only supported for Mechanical Enterprise or Enterprise PrePost users.
- Distortion Compensation Add-on: For iterative distortion compensation simulations using the user-defined reference geometry option (Use Reference Geometry File = Yes), the defect that required the Support Reference File Units field on the Iterative Compensation object to be set to meters has been corrected. The field can now be set to millimeters or any other unit that is correct for the specified support stl. (957210)

### **Mechanical NVH Toolkit Add-on**

- The Pre-Test Calculator now includes a Proximity between Sensors property, which allows removal of nodes based on distance at each EIM (Effective Independence Method) iteration.
- The Pre-Test Worksheet now allows direct Addition of sensors to the analysis and has Show and Hide functions for all sensors and exciters. The AutoMAC table is updated dynamically when performing any of these actions.



- 
- Several additional enhancements have been made to the Pre-Test Calculator. These include an option to scale exciter and sensor icon size, a rank column in both the sensor and exciter tables, removal of the DPFRR graph, an option to create a Named Selection from a list of sensors and exciters and an option to avoid exciter calculation when needed. The EIM efficiency algorithm has also been improved.
  - The MAC Calculator now includes Filter Options to reduce the number of nodes selected for matching and mapping. This functionality is similar to the Pre-Test Calculator, but also considers nodes on edges.
  - For RST-to-RST cases, the MAC Calculator now allows cyclic optimization, similar to the RST-to-UNV case.
  - The FRF Calculator now includes an option to calculate the inverse of the physics (Compliance/Dynamic Stiffness, Mobility/Mechanical Impedance, Accelerance/Dynamic Mass).
  - An FRF Comparison feature has been added, which allows comparison of two sets of FRF data in both graphical (magnitude and phase) and worksheet format.

## Meshing

- When you import Catia model and apply Multizone Method for meshing, Multizone fails to create mesh on the model. Now, Mutizone Method is enhanced to support Catia model and create successful mesh.(957963)
- When you run stand-alone Mechanical in batch mode, MultiZone Body Fitted Cartesian Method fails to generate mesh on the model. Now, MultiZone Body Fitted Cartesian Method is enhanced to generate mesh on the model while running in batch mode.(959284)

## Motion

- Fixed a bug in the FFT (Fast Fourier Transform) operation to return the exact, expected frequency increments. (925914)
- Fixed a bug that applies the scaling value incorrectly to a rigid-body rotation term when calculating shape animation data. (958143)

## RBD

- Addressed potential undefined behaviors or crashes in the Mechanical Rigid Dynamics transient and configure operations, which may occur in the 24R1 version of the software. (959942)

## Speos

---

### Note:

After installing SP1, go to the SCDM directory in an Admin command prompt, and issue these two commands:

```
gacinstall -u SpaceClaim.Foundation.dll
```

```
gacinstall -i SpaceClaim.Foundation.dll
```

---

## Speos Catia V5 Import

- Hidden surfaces in Catia V5 documents are now imported correctly when "Import hidden components and geometry" option is activated (933683)
- Fixed import of Catia V5 geometries with scaling applied (933683)
- Artifacts of geometry appearing on some data when toggling to heavyweight are now fixed (925164)
- Geometric set from Catia V5 documents is now correctly imported in lightweight (650255)
- Fixed meshing preview (936805)
- Texture mapping applied to subcomponents is now previewed (945275)
- Improved projection on 3D texture patterns on geometry edges (945854)
- Some multiphysics projects with Workbench and Speos now update correctly (943798)

#### Speos Solver

- Tangent faces with texture applied are now correctly handled during simulation (878683, 853805)
- In rare cases, 3D texture simulations were very slow. This issue has been fixed (934897)
- Fixed issue on coated surfaces coefficient that caused the Physical Camera results to be wrong (969062)
- Fixed an issue that generated large log files during simulations (924152)
- Improved performance on simulation using a source defined with an XMP Intensity distribution with a sampling of 5nm or less (924651)
- Fixed an issue on exported simulation using camera sensor(s) defined with a binary distortion file that could not run (943126)
- Better alignment of GPU simulation with respect to CPU in case of volume conflicts (922134)
- Simulations using CIE Standard Overcast Sky source now generate correct results whatever the date, time and location of the simulation run (928867)

#### Speos Viewers

- Elastic licensing no longer takes extra tokens when several Speos viewers are executed.

#### Speos for NX

- Part Families no longer need to be reselected in simulation (936551)
- Fixed an error preventing radiometric irradiance sensors with polarization layers to be used (937642)
- Trimming ratio is now correctly applied on Light Guides (937767)

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# Chapter 5: Download Center Info - CADNexus

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## CADNexus Package Overview

This package includes the CADNexus interface which allows Workbench applications to interface with CATIA V5 geometry in a bidirectional, associative manner.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

CADNEXUS\_V4.00.0\_WINX64.zip

<platform> = WINX64 (for Windows x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

- Interfaces
  - CADNEXUS/CAPRI CAE Gateway for CATIA V5

### Required License Manager:

Ansys License Manager

### Also Included in this Package:

N/A

### You may also want this Package:

- Ansys License Manager



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# Chapter 6: Download Center Info - CAE Data Interfaces for EKM

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## CAE Data Interfaces for EKM Package Overview

This package contains the CAE Data Interfaces for Ansys EKM that can be used to add and manage supported non-Ansys file formats to EKM.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

CAEDATA\_2024R1\_<platform>.<zip/tgz>

<platform> = WINX64 (for Windows x64)

<platform> = LINX64 (for Linux x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

Linux x64 ... tgz format

### Applications Supported by this Package:

- CAE Data Interfaces for Ansys EKM

### Required License Manager:

N/A

### Also Included in this Package:

N/A

## You may also want this Package:

N/A

---

# Chapter 7: Download Center Info - Collaboration

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## Discovery Collaboration Services Package Overview

This package contains Ansys Discovery Collaboration Services, which is an add-on package for Ansys Discovery. This allows organizations to leverage their O365 networks to enable features in Ansys Discovery that provide simulation collaboration services for users. It also contains the Ansys Discovery Web Application. The installation should be performed by an IT administrator. Please see the PDF files within the package for detailed installation instructions.

The package includes:

- Ansys Discovery Collaboration Services
- Ansys Discovery Web Application

## Ansys Release:

2024 R1

## Prerequisites:

- Ansys Discovery Collaboration Services
  - Machine with at least 2 CPUs and 16 GB RAM to support 50 concurrent users
  - .NET 6.0
  - PowerShell 7
  - An SSL certificate on the host machine with a private key
- Ansys Discovery Web Application
  - .NET 6
  - IIS with URL re-write module
  - An SSL certificate on the host machine with a private key
- Permissions
  - IT administrative rights to Azure AD
  - Rights to issue an internal or external certificates
  - Rights to manage firewall policies

- Ability to create a virtual machine

### **Updates:**

None Available

### **Package Name:**

COLLABORATION\_2024R1\_WINX64.zip

### **Platform Availability and Package Format:**

Windows x64 ... zip format

### **Applications Supported by this Package:**

- Ansys Discovery

### **Required License Manager:**

N/A

### **Also Included in this Package:**

N/A

### **You may also want this Package:**

N/A



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# Chapter 8: Download Center Info - Discovery

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## Discovery Package Overview

This package contains Ansys Discovery which is an integrated solution for 3D engineering simulation encompassing the breadth of Ansys physics in a single, modern user environment.

The package includes:

- Ansys Discovery
- Ansys Geometry Interfaces

## Ansys Release:

2024 R1

## Prerequisites:

Microsoft .NET Framework 4.6.2 is required for this package. If your computer does not have .NET 4.6.2 installed, the package installation program installs .NET 4.6.2 as a prerequisite and may require a system restart after exiting the installation and before running any Ansys products.

## Updates:

None Available

## Package Name:

DISCOVERY\_2024R1\_WINX64.zip

## Platform Availability and Package Format:

Windows x64 ... zip format

## Applications Supported by this Package:

- Ansys Discovery
- Geometry Modeling
  - Ansys DesignModeler
  - Ansys SpaceClaim

- HPC
  - Ansys HPC
  - Ansys HPC Pack
- HPC Parametric
  - Ansys HPC Parametric Pack
- Multiphysics PrepPost/Solver Bundles
  - Ansys AIM Pro
- Multiphysics Options
  - Ansys Customization Suite
  - Ansys DesignXplorer

### **Required License Manager:**

Ansys License Manager

### **Also Included in this Package:**

- Ansys License Manager
- Ansys Product Documentation
- RSM

### **You may also want this Package:**

- Ansys Release Documentation

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# Chapter 9: Download Center Info - Documentation

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## Documentation Package Overview

There are three documentation packages that can be downloaded:

- **Release:** Release documentation (includes: Installation Guides, Licensing Guides, Release Notes, Known Issues and Limitations, etc.)
- **Product:** This package contains the full Ansys documentation in PDF format for most Ansys products at the time of release. Because our documentation is updated on a regular basis, the most current Ansys product documentation can be found on our internet help site.
- **Local Help:** Ansys product documentation is now online, directly linked from the products. With online documentation, you have access to the best and latest content, updated as soon as it is available. If you do not have Internet access, or if you want to run help locally, you can download this installable version of our product documentation. For Local Help installation instructions, see [Installing Local Help \(p. 38\)](#) at the end of this document.

**Note:** Documentation for the Electromagnetics Suite is available via the normal methods.

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Names:

- ANSYSRELEASEDOC.7z
- ANSYSPRODUCTPDFDOC\_232.zip
- ANSYSLOCALHELP\_2024R1\_WINX64.zip
- ANSYSLOCALHELP\_2024R1\_LINX64.tgz

## Platform Availability and Package Format:

Windows x64 ... zip format

Linux x64 ... tgz format

## Applications Supported by this Package:

N/A

## Required License Manager:

N/A

## Also Included in this Package:

N/A

## You may also want this Package:

N/A

## 9.1. Installing Local Help

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**IMPORTANT NOTE:** IF you have already set the ANSYS\_INTERNET\_DOC environment variable for testing earlier pre-release versions, you will need to unset it before running the local install. The environment variable will take precedence over the local install and prevent the installation from correctly configuring your system.

### Windows Installation Steps

1. Download the Local Help package from:

*Download Center>Tools>Documentation>Local Documentation Installation*

2. Extract the package to a working directory of your choice.
3. Run **<working directory>\setup.exe** as administrator.

The Ansys, Inc. Installation Launcher appears.

4. Click the **Install Ansys Products** option.

The license agreement appears.

5. Read the agreement, and if you agree to the terms and conditions, select **I Agree**. Click **Next**.
6. The directory where you installed the Ansys, Inc. products is shown in the **Install Directory** field. You can install the products into any directory you want, but you must have write permissions to the directory you choose. Note that if you select a directory other than the directory where the Ansys products are installed, you will have additional post-installation steps. Do not change any other options on this page.

When you have selected your installation directory, click **Next**.

7. Select "Ansys, Inc. Documentation Only" on the product selection screen and click **Next**.

8. A summary of the selected installation packages appears. Review the information carefully, and if correct, click **Next** to continue the installation.
9. When the installation is done, the product installation window reappears with a message noting that the installation is complete.
10. Depending on your installation scenario, run the appropriate configuration described below:
  - a. If you installed the documentation to the same directory as your product installation, or if you installed the documentation on a machine with no product installation, you can now run the help normally. No further configuration is needed.

**Note:** If there are multiple users accessing the help, each additional user must point to the help installation directory by performing the steps described below.
  - b. If you have an existing product installation but installed the documentation to a directory other than the product installation, or the user account used to install the local help is not the end user:
    - i. Run **Start>All Programs>Ansys 2024 R1>Ansys Help Configuration 2024 R1**.
    - ii. Select the **Ansys Local Help** option.
    - iii. Click **Browse** and locate the \commonfiles\help directory where you installed the help files. (**Example:** C:\Local doc\Ansys Inc\v241\commonfiles\help)
    - iv. Click **Select Folder**.

The message "**Help files found. Click Save to use these files.**" is displayed.
    - v. The language for the application and viewer help defaults to the operating system regional language setting. If you need to change the language, select the appropriate language from the available dropdown menu. The appropriate language pack must be installed prior to performing this step. **Note:** When displaying a language in the help, the order of selection precedence is: A) the language set in the Ansys Help Configuration Tool, B) the language supplied by the product and C) the operating system regional settings language.
    - vi. After completing the configuration, click **Save**.

You can now run the help normally.

## Linux Installation Steps

1. Download the Local Help package from:

*Download Center>Tools>Documentation>Local Documentation Installation*
2. Extract the package to a working directory of your choice.
3. Run **<working directory>/doonly/linux/INSTALL**.
4. The Ansys, Inc. Installation Launcher appears.
5. Click the **Install Ansys Products** option.

The license agreement appears.

6. Read the agreement, and if you agree to the terms and conditions, select **I Agree**. Click **Next**.
7. The directory where you installed the Ansys, Inc. products is shown in the **Install Directory** field. You can install the products into any directory you want, but you must have write permissions to the directory you choose. Note that if you select a directory other than the directory where the Ansys products are installed, you will have additional post-installation steps. Do not change any other options on this page.

When you have selected your installation directory, click **Next**.

8. Select "Ansys, Inc. Documentation Only" on the product selection screen and click **Next**.
9. A summary of the selected installation packages appears. Review the information carefully, and if correct, click **Next** to continue the installation.
10. When the installation is done, the product installation window reappears with a message noting that the installation is complete.
11. Depending on your installation scenario, run the appropriate configuration described below:
  - a. If you installed the documentation to the same directory as your product installation, or if you installed the documentation on a machine with no product installation, you can now run the help normally. No further configuration is needed.

**Note:** If there are multiple users accessing the help, each additional user must point to the help installation directory by performing the steps described below.

- b. If you have an existing product installation but installed the documentation to a directory other than the product installation, or the user account used to install the local help is not the end user:
  - i. Issue the following command from the v232 directory to configure the new help location:  

```
Tools/mono/Linux64/bin/mono commonfiles/help/HelpViewer/ANSYSHelpConfigurationTool.exe
```
  - ii. Select the **Ansys Local Help** option.
  - iii. The language for the application and viewer help defaults to the operating system regional language setting. If you need to change the language, select the appropriate language from the available dropdown menu. The appropriate language pack must be installed prior to performing this step. **Note:** When displaying a language in the help, the order of selection precedence is: A) the language set in the Ansys Help Configuration Tool, B) the language supplied by the product and C) the operating system regional settings language.
  - iv. After completing the configuration, click **Save**.

You can now run the help normally by issuing following command from the v241 directory:

```
Tools/mono/Linux64/bin/mono commonfiles/help/HelpViewer/ANSYSHelpViewer.exe
```

---

# Chapter 10: Download Center Info - Dynamic ROM Preprocessing for Mechanical

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## Dynamic ROM Preprocessing Package Overview

The Dynamic ROM Preprocessing package contains an extension that can be added to Ansys Workbench so that Mechanical Transient Thermal or Structural results can be exported as a learning scenario in the dedicated format for Dynamic Rom Builder.

Licenses for Ansys Twin Builder and Ansys Mechanical must be purchased separately.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

DRB\_MECHANICAL\_2024R1\_<platform>.zip

<platform> = WINX64 (for Windows x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

- Ansys Workbench

### Required License Manager:

Ansys License Manager

### Also Included in this Package:

N/A

## You may also want this Package:

- Ansys License Manager



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# Chapter 11: Download Center Info - Electronics

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## Electronics Package Overview

The Ansys software contained in this package provides the ability to design integrated circuits (ICs), printed-circuit boards (PCBs), communication infrastructures, and electromechanical systems. It includes the Ansys flagship products listed below.

For information on downloading and installing the Ansys Motor-CAD package, see the [Ansys Motor-CAD Package Overview \(p. 50\)](#) below.

## Ansys Release:

2024 R1

## Updates:

### 2024 R1.01

#### Update Package Name:

ELECTRONICS\_2024R1.01\_<platform>.<zip/tgz>

#### Resolved Issues

##### 3D Layout

- Running a project with an encrypted component on a Linux cluster no longer hangs prior to generating the initial mesh.
- For parallel adaptive meshing, an error reading the bpsm file no longer occurs.
- For parallel adaptive meshing, a generic meshing error no longer occurs.
- The Save button now functions as expected.
- For parallel adaptive meshing, an error creating interface ports no longer occurs.
- Archived projects can now be restored without stalling.
- An issue with solderballs not appearing when merging an IC mode design onto a 3D Layout design has been resolved.
- The Select Physically Connected function now selects the expected components.
- Plotting fields on components works as expected when the stackup is encrypted.

- A meshing error when mesh seeding and TSV were enabled has been resolved.
- An error no longer occurs when clicking Analyze > Add Custom HFSS Setup.
- Component terminals within zones sometimes caused a meshing failure; the issue has been resolved.
- For IBIS components, the Bit Pattern Data dialog now opens as expected.
- Importing GDS files now completes import successfully on Windows.
- When copying and pasting a design with parallel adapt partitions, the partitions are now pasted into the new design as expected.
- Promoting a port from a 3D MCAD to a Layout design now occurs in the expected duration.
- Mesh operations in the .NET EDB API now contain the SolveInside parameter.
- Q3DPreProc did not handle an MCAD terminal having ref terminal on ECAD, which is fixed now.
- After solving a RaptorX case, the results are now saved as expected.
- Cutout information is now stored in the EDB file.
- RaptorX simulation results now display text labels exported by GDSII and Netlist for RaptorX ports correctly.
- An error in which a 3D component is missing after using the Save As function has been resolved.

### **Circuit**

- Components missing from the Component Libraries panel have been restored.

### **Circuit UI**

- A crash no longer occurs when switching a circuit model design to a receiver ODT.

### **Desktop**

- When the legacy view navigation is enabled, the legacy zoom controls now function as expected.
- A licensing error when using High Performance Computing with a command line no longer occurs.
- Animating an E/H field plot with "Phase" no longer produces crash.
- You can now enable legacy optimetrics tools using the command line `oDesktop.SetRegistryInt("Desktop/Settings/ProjectOptions/EnableLegacyOptimetric-sTools", 1)`.

- 
- A 3D Polar Plot for a case with a large number of sweep points in the far field radiation sphere now rotates, pans, and zooms at the expected speed.
  - The Pan movement now functions as expected for 2D plots.
  - The installation of pyAEDT in Electronics Desktop is now directed to the pyAEDT website.
  - Using the Alt and/or Shift keys while clicking and dragging in the 3D Modeler window now results in the expected viewpoint changes.
  - An issue causing javascript to fail for some scripting commands has been resolved.

### **Digital Twin Solver**

- Slower simulation speeds for Average IGBT and MOSFET models has been addressed.

### **Digital Twin UI**

- A licensing issue no longer occurs when exporting twins as FMU or FLSIM format.

### **EMIT**

- Imported s-parameter coupling data is no longer truncated at -200.0 dB.

### **HFSI Field Circuit Solver**

- The CPA solver now calculates inductance accurately.

### **HFSS Solver**

- An issue with background processes running after a simulation completes has been resolved.
- Shared memory and distributed memory matrix solvers now use the same perturbation settings.
- The memory estimate for sparse partial solve is improved.
- A file transfer error no longer occurs when running Electronics Desktop and the COM engine on different hosts.
- A case running adaptive passes no longer stalls during the first pass.
- For certain cases, Auto HPC now configures the expected amount of parallel frequencies during a frequency sweep.
- HFSS high performance computing on AMD machines now uses the correct number of cores.
- Discreet sweeps can now be run successfully with the Composite subgroup in network analysis beta feature enabled.
- Extremely low frequencies are now borrowed from an original sweep during a subsequent sweep as expected.

- First order basis functions are now used in metals when using mixed order basis functions.
- An error no longer occurs while performing sweeps using Ansys Cloud Direct.

### **Icepak**

- For models containing power maps, solver initialization duration is now faster.
- The Run TEC toolkit now functions as expected.

### **Maxwell UI**

- A meshing error in which a Maxwell Transight APhi solution would refine mesh at the start of each analysis has been resolved. Now the mesh refinement will only be applied to the initial mesh.

### **MCAD**

- 3D component names can now begin with numbers as long as no datasets are present in the source design and project.
- A bug causing duplicate IDs after copying and pasting objects in some situations was fixed.

### **QA**

- The HFSS example project CISPR 25 has been corrected and is now set up properly with respect to the antenna pin.

### **Slwave Solver**

- A PSI AC sweep now produces accurate voltage and current distribution results.

### **Slwave UI**

- Pin loop inductance map values are now displayed accurately.
- Respect net display filter when highlighting vias with specific current flow values.
- A memory access error no longer occurs when running a SYZ simulation.
- Launching PI Advisor no longer causes Slwave to crash.
- When exported to Q3D, the wirebond z-axis height is now correct in Q3D.
- False DC short errors are no longer reported during validation check.
- When an SIWAVE\_IGNORE\_UNCONNECTED\_PIN\_GROUPS environment variable is set to 1, pin groups without sources, ports or terminals are ignored (i.e., represented as individual, ungrouped pins) during simulation.
- Bondwire RLC values are now displayed in the electrical properties.
- Slwave now displays the correct Windows version (Windows 11).

- 
- Simulation results from siwave\_ng-generated project archive files (.siwz) are now properly restored when unarchived in the SIwave UI.
  - In the MTTF Location Table dialog box, the MTTF/Hours column for vias is now populated as expected.
  - SIwave zoom in/out mouse wheel behavior tracks the setting in Electronic Desktop's Tools > Options > General Options > User Interface panel.
  - SIwave no longer stalls after modifying PCB circuit element parameters on complex boards.

## Package Name:

ELECTRONICS\_2024R1\_<platform>.<zip/tgz>

<platform> = WINX64 (for Windows x64)

<platform> = LINX64 (for Linux x64)

## Platform Availability and Package Format:

Windows x64 ... zip format\*\*

Linux x64 ... tgz format

\*\* Twin Builder® is only available on Windows

## Applications Supported by this Package:

- High-Frequency (HF) & Signal Integrity (SI), and Electronics Thermal Management
  - Ansys EMIT
  - Ansys HFSS
  - Ansys HFSS SBR+ Solver
  - Ansys Icepak
  - Ansys Q3D Extractor
  - Ansys RF Option
  - Ansys Savant
  - Ansys SIwave DC
  - Ansys SIwave PI
  - Ansys SIwave
- Maxwell

- Ansys Maxwell 2D
- Ansys Maxwell QS
- Ansys Maxwell
- Ansys RMaxprt
- Ansys PExprt (Windows Only)
- HF, SI & Maxwell Solvers
  - Ansys HFSS-IE Solver
  - Ansys HFSS Solver
  - Ansys HFSS-TR Solver
  - Ansys Q3D Extractor 3D Solver
  - Ansys SIwave PSI Solver
  - Ansys Electronics Desktop 2D Solver
- HF, SI & Maxwell PrePost
  - Ansys Electronics Desktop PrepPost
  - Ansys Electronics Desktop 2D Core
  - Ansys HFSS Pre/Post Processor
  - Ansys Q3D Extractor Pre/Post Processor
  - Ansys SIwave Pre/Post Processor
  - Ansys Maxwell 3D Pre/Post Processor
  - Ansys Designer Pre/Post Processor
- HF, SI & Maxwell Options
  - Ansys RF Option
  - Ansys SI Option
  - Ansys 2D Extractor Option
  - Ansys Optimetrics (For HFSS, Q3D Extractor, Maxwell)
  - Ansys Distributed Solve (DSO)
- High-Frequency (HF) & Signal Integrity (SI) [Windows only]
  - Ansys HFSS SBR+ Solver

- 
- Ansys Savant
  - Ansys EMIT
  - Ansys RF Option
  - Twin Builder®
    - Ansys Twin Builder Pro
    - Ansys Twin Builder Premium
    - Ansys Twin Builder Enterprise
  - MCAD/Geometry Interfaces
    - Ansys ALinks for EDA
    - Ansys ALinks for MCAD
    - Ansys ALinks for MCAD CATIA
    - Ansys ALinks for MCAD NX
    - Ansys ALinks for MCAD Parasolid
  - Electronics HPC
    - Ansys Electronics HPC
    - Ansys Electronics HPC Pack
  - Multiphysics PrepPost/Solver Bundles
    - Ansys Mechanical CFD Maxwell 3D

Important Note: Download Structures, Fluids, and Electronics packages or ISO and Electronics packages

- Ansys Mechanical Emag with Maxwell 3D

Important Note: Download Structures, and Electronics packages or ISO and Electronics packages

## **Required License Manager:**

Ansys License Manager

## **Also Included in this Package:**

N/A

## **You may also want this Package:**

- Ansys License Manager

## Ansys Motor-CAD Package Overview

The Ansys Motor-CAD software contained in this package provides the ability to efficiently calculate electromagnetic, thermal and mechanical performance of an electrical machine over the complete operating cycle.

---

### Note:

The 2024 R1 release of Motor-CAD is fully integrated with Ansys License Manager in addition to the earlier Motor-CAD license server. To use Motor-CAD with Ansys License Manager, you must get a new license file.

---

## Ansys Release:

2024 R1

## Updates:

### 2024 R1.03

#### Update Package Name:

MOTORCAD\_2024R1\_3\_WINX64.zip

- Fix for DXF import failure through user interface.
- Fix for Motor-CAD to Mechanical force export for Mechanical 2024R1.
- Fix for adaptive templates subtraction failure with parented regions.
- Square wave calculated currents DC bus current calculation correction for cases where more than one high side switch is active.
- Enabled form wound winding AC loss calculation.

## Package Name:

MOTORCAD\_v14.1.17\_WINX64.<zip>

## Platform Availability and Package Format:

Windows x64 ... zip format

## Applications Supported by this Package:

- Ansys Motor-CAD
  - Ansys Motor-CAD PM
  - Ansys Motor-CAD IM



- 
- Ansys Motor-CAD SYNC
  - Ansys Motor-CAD Enterprise

**Required License Manager:**

N/A

**Also Included in this Package:**

N/A

**You may also want this Package:**

N/A



---

# Chapter 12: Download Center Info - Electronics Documentation

---

## Electronics Documentation Package Overview

The Electronics documentation is now online, directly linked from the products. With online documentation, you have access to the best and latest content, updated as soon as it is available. If you do not have Internet access, or if you want to run help locally, you can download this installable version of the electronics documentation. For Local Help installation instructions, see the installation steps document contained in the download package.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Names:

- ELECTRONICS\_LOCAL\_HELP\_2024R1.zip

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

N/A

### Required License Manager:

N/A

### Also Included in this Package:

N/A

## You may also want this Package:

N/A

---

# Chapter 13: Download Center Info - EMC Plus and Charge Plus

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## EMC Plus Package Overview

The Ansys EMC Plus software contained in this package is an electromagnetic tool used to solve cable harness applications installed on complex platforms such as aircraft and automobiles. It is critical for EMI/EMC certification especially in Aerospace and Defense and Automotive markets.

For information on the Ansys Charge Plus package, see the [Charge Plus Package Overview \(p. 56\)](#) below.

For information on the Ansys SynMatrix Filter package, see the [Ansys SynMatrix Filter Package Overview \(p. 56\)](#) below.

### Ansys Release:

2024 R1

### Package Name:

EMA3D\_2024R1.zip

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

- Ansys HPC (All Products)

### Required License Manager:

Ansys License Manager

### Also Included in this Package:

- Ansys SpaceClaim Deisign Modeler
- INTEL MPI

## You may also want this Package:

None

## Charge Plus Package Overview

Charge Plus is a nonlinear FDTD code used to simulate spacecraft charging as well as dielectric breakdown and electric arc within high-voltage devices.

## Ansys Release:

2024 R1

## Package Name:

EMA3D\_Charge\_2024R1.zip

## Platform Availability and Package Format:

Windows x64 ... zip format

## Applications Supported by this Package:

- Ansys HPC (All Products)

## Required License Manager:

Ansys License Manager

## Also Included in this Package:

- Ansys SpaceClaim Design Modeler
- INTEL MPI

## You may also want this Package:

None

## Ansys SynMatrix Filter Package Overview

The Ansys SynMatrix software contained in this package is an all-in-one platform that enables users to design, optimize, and manufacture RF filters.

## Ansys Release:

2024 R1

---

## Updates:

None Available

## Package Name:

ANSYS\_SYNMATRIX\_FILTER\_2024R1.zip

## Platform Availability and Package Format:

Windows x64 ... zip format

## Applications Supported by this Package:

- Ansys SynMatrix Filter
- Ansys SynMatrix Filter AI+

## Required License Manager:

Ansys License Manager

## Also Included in this Package:

N/A

## You may also want this Package:

N/A





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# Chapter 14: Download Center Info - Enterprise Licensing

---

## Enterprise Licensing Package Overview

The Enterprise Licensing Package contains the same release of the Ansys License Manager as the Ansys License Manager download selection. Use the Enterprise Licensing Package if you are an Enterprise IT license administrator with excellent FlexNet knowledge and system administration skills and have a uniquely customized licensing environment. Neither an installation program nor license administration tools are provided with this package.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

ENTERPRISELICENSING\_2024R1\_<platform>.<zip/tgz>

<platform> = WINX64 (for Windows x64)

<platform> = LINX64 (for Linux x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

Linux x64 ... tgz format

### Applications Supported by this Package:

N/A

### Required License Manager:

N/A

## Also Included in this Package:

N/A

## You may also want this Package:

- Ansys Release Documentation

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# Chapter 15: Download Center Info - SCADE License Manager

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## ESTEREL License Manager Package Overview

This package contains the ESTEREL License Manager for SCADE products.

### ANSYS Release:

2024 R1

### Updates:

None Available

### Package Name:

ETLICMAN\_11.14.0.2.zip

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

- All SCADE Products

### Required License Manager:

NA

### Also Included in this Package:

N/A

### You may also want this Package:

N/A



---

# Chapter 16: Download Center Info - Fluids

---

## Fluids Package Overview

The Ansys software contained in this package includes the CFD tools available from Ansys. These tools give you the ability to predict the impact of fluid flow and related physics on your products. It includes the Ansys flagship fluids products listed below.

### Ansys Release:

2024 R1

### Prerequisites:

Microsoft .NET Framework 4.6.2 is required for the Windows version of this package. If your computer does not have .NET 4.6.2 installed, the package installation program installs .NET 4.6.2 as a prerequisite and may require a system restart after exiting the installation and before running any Ansys products.

### Updates:

### Package Name:

FLUIDS\_2024R1\_<platform>.<zip/tgz>

<platform> = WINX64 (for Windows x64)

<platform> = LINX64 (for Linux x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

Linux x64 ... tgz format

### Applications Supported by this Package:

- Fluids PrepPost/Solver Bundles
  - Ansys FLUENT
  - Ansys CFD Enterprise
  - Ansys CFD Premium

- Ansys CFD-Flo
- Fluids Solvers
  - Ansys CFD Enterprise Solver
  - Ansys CFD Premium Solver
  - Ansys FLUENT Solver
- Fluids PrepPost
  - Ansys CFD PrepPost
  - Ansys EnSight
  - Ansys EnSight Enterprise
  - EnVison Pro
- Fluids Modules
- Fluids CAD Embedded options
  - Fluent for CATIA V5
  - Fluent for CATIA V5 Pre
- TurboMachinery Applications
  - Ansys BladeModeler
  - Ansys Vista TF
- Combustion and Chemical Reactions
  - Ansys Collaborator License
- Electronic Thermal Design Products
  - Ansys Icepak
- Polymer Processing and Glass Forming Products
- Geometry Modeling
  - Ansys Discovery
  - Ansys DesignModeler
  - Ansys SpaceClaim
  - Ansys SpaceClaim Catia V5 Interface
- Meshing

- 
- CAD/Geometry Interfaces
    - Geometry Interface for JT
    - Ansys Geometry Interface for Creo Parametric
    - Ansys Geometry Interface for Autodesk
    - Ansys Geometry Interface for Solid Edge
    - Ansys Geometry Interface for SolidWorks
    - Ansys Geometry Interface for Creo Elements/Direct Modeling
    - Ansys Geometry Interface for SAT
    - Ansys Geometry Interface for CATIA V5
    - Ansys Geometry Interface for CATIA V6
    - Ansys Geometry Interface for NX
    - Ansys Geometry Interface for Parasolid
  - PDM Interfaces
    - Ansys Interface for TeamCenter
  - HPC
    - Ansys HPC
    - Ansys HPC Pack
  - HPC Parametric
  - EKM and CAE Interfaces
    - Ansys EKM Analyst
    - Ansys EKM Shared
  - Multiphysics PrepPost/Solver Bundles
    - Ansys Mechanical CFD Maxwell 3D
      - Important Note: Download Structures, Fluids, and Electronics packages or ISO and Electronics packages
    - Ansys Mechanical CFD
      - Important Note: Download Structures and Fluids packages or ISO packages
  - Multiphysics Options
    - Ansys Customization Suite

- Ansys DesignXplorer
- EnSight Options
  - Ansys EnSight
  - Ansys EnSight Enterprise
  - Ansys EnSight JT Exporter
  - Ansys EnSight MR
  - Ansys EnSight VR

### **Required License Manager:**

Ansys License Manager

### **Also Included in this Package:**

- Ansys License Manager
- Ansys Product Documentation
- RSM
- Ansys Workbench Platform
- Ansys Viewer (Windows Only)

### **You may also want this Package:**

- Ansys Release Documentation



---

# Chapter 17: Download Center Info - Fluids and Structures

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## Fluids and Structures Package Overview

The Ansys software contained in this package provides the ability to perform:

- Structural (static & dynamic) physics simulations
- Fluid flow physics simulations
- Fluid-structural interaction simulations

## Ansys Release:

2024 R1

## Prerequisites:

Microsoft .NET Framework 4.6.2 is required for the Windows version of this package. If your computer does not have .NET 4.6.2 installed, the package installation program installs .NET 4.6.2 as a prerequisite and may require a system restart after exiting the installation and before running any Ansys products.

## Updates:

None Available

## Special Instructions:

There are two components that make up this selection:

- The Fluids and Structures download package
- The PrepPost download package

## Package Name:

- Fluids and Structures Package
  - FLUIDSSTRUCTURES\_2024R1\_<platform>.<zip/tgz>
    - <platform> = WINX64 (for Windows x64)
    - <platform> = LINUX64 (for Linux x64)

- PrepPost Package
  - PREPPOST\_2024R1\_<platform>.<zip/tgz>  
<platform> = WINX64 (for Windows x64)  
<platform> = LINX64 (for Linux x64)

## **Platform Availability and Package Format:**

Windows x64 ... zip format

Linux x64 ... tgz format

## **Applications Supported by this Package:**

- Fluids PrepPost/Solver Bundles
  - Ansys CFD Pro
  - Ansys CFD Enterprise
  - Ansys CFD Premium
  - Ansys CFD-Flo
- Fluids Solvers
  - Ansys CFD Enterprise Solver
  - Ansys CFD Premium Solver
  - Ansys CFD Pro
- Fluids PrepPost
  - Ansys CFD PrepPost
  - Ansys EnSight
  - Ansys EnSight Enterprise
  - EnVison Pro
- Fluids Modules
- Fluids CAD Embedded options
  - Fluent for CATIA V5
  - Fluent for CATIA V5 Pre
- TurboMachinery Applications

- 
- Ansys BladeModeler
  - Ansys Vista TF
  - Combustion and Chemical Reactions
    - Ansys Collaborator License
  - Electronic Thermal Design Products
    - Ansys Icepak
  - Polymer Processing and Glass Forming Products
  - Geometry Modeling
    - Ansys Discovery
    - Ansys DesignModeler
    - Ansys SpaceClaim
    - Ansys SpaceClaim Catia V5 Interface
  - Meshing
  - CAD/Geometry Interfaces
    - Geometry Interface for JT
    - Ansys Geometry Interface for Creo Parametric
    - Ansys Geometry Interface for Autodesk
    - Ansys Geometry Interface for Solid Edge
    - Ansys Geometry Interface for SolidWorks
    - Ansys Geometry Interface for Creo Elements/Direct Modeling
    - Ansys Geometry Interface for SAT
    - Ansys Geometry Interface for CATIA V5
    - Ansys Geometry Interface for CATIA V6
    - Ansys Geometry Interface for NX
    - Ansys Geometry Interface for Parasolid
  - PDM Interfaces
    - Ansys Interface for TeamCenter
  - HPC

- Ansys HPC
- Ansys HPC Pack
- HPC Parametric
- EKM and CAE Interfaces
  - Ansys EKM Analyst
  - Ansys EKM Shared
  - Ansys CAE Interface for ABAQUS
  - Ansys CAE Interface for NASTRAN
  - Ansys CAE Interface for SAMCEF
- Multiphysics PrepPost/Solver Bundles
  - Ansys Mechanical CFD Maxwell 3D

Important Note: Download Structures, Fluids, and Electronics packages or ISO and Electronics packages

- Ansys Mechanical Emag with Maxwell 3D

**Important Note:** Download Structures, and Electronics packages or ISO and Electronics packages

- Ansys Mechanical CFD

Important Note: Download Structures and Fluids packages or ISO packages

- Multiphysics Options
  - Ansys Customization Suite
  - Ansys DesignXplorer
- EnSight Options
  - Ansys EnSight
  - Ansys EnSight Enterprise
  - Ansys EnSight JT Exporter
  - Ansys EnSight MR
  - Ansys EnSight VR
- Mechanics PrepPost/Solver Bundles
  - Ansys Mechanical Enterprise
  - Ansys Mechanical Pro

- 
- Ansys Mechanical Premium
  - Ansys Structural
  - Ansys Professional NLS
  - Ansys Professional NLT
  - Ansys DesignSpace
  - Ansys Autodyn
  - Ansys Explicit STR
  - Ansys Rigid Body Dynamics
  - Ansys Additive Suite
  - Mechanics Solvers
    - Ansys Mechanical Enterprise Solver
    - Ansys Structural Solver
  - Mechanics PrepPost
    - Ansys Mechanical Enterprise PrepPost
    - Ansys Autodyn PrepPost
    - Ansys Composite PrepPost
  - Mechanics Modules
    - Ansys Fatigue Module
  - LS-DYNA
    - Ansys LS-DYNA
    - Ansys LS-DYNA HPC
  - AQWA
    - Ansys Aqwa Suite
    - Ansys Aqwa Suite with Coupled Cable Dynamics
  - Ansys Additive
    - Ansys Additive Prep
  - Ansys SpaceClaim
  - Ansys Sherlock

## Academic Products Supported by this Package:

- Academic Associate
  - Ansys Academic Associate Mechanical and CFD
  - Ansys Academic Associate CFD
  - Ansys Academic Associate HPC
- Academic Research
  - Ansys Academic Research Mechanical and CFD
  - Ansys Academic Research Mechanical
  - Ansys Academic Research LS-DYNA
  - Ansys Academic Research CFD
  - Ansys Academic Research POLYFLOW
  - Ansys Academic Research HPC
  - Ansys Academic Research LS-DYNA HPC
- Academic Teaching
  - Ansys Academic Teaching Mechanical and CFD
  - Ansys Academic Teaching Mechanical
  - Ansys Academic Teaching CFD
- Academic Toolbox
  - Ansys Academic Preprocessing Tools
  - Ansys Academic Fuel Cell Tools
  - Ansys Academic EKM Shared
  - Ansys Academic Composite Tools
  - Ansys Academic SpaceClaim Tools (Windows only)
- Ansys Sherlock

## Required License Manager:

Ansys License Manager

---

## **Also Included in this Package:**

- Ansys License Manager
- Ansys Product Documentation
- RSM
- Ansys Workbench Platform
- Ansys Viewer (Windows Only)

## **You may also want this Package:**

- Ansys Release Documentation





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# Chapter 18: Download Center Info - Forming

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## Forming Package Overview

This package contains the files for the Ansys Forming product. Ansys Forming is a dedicated simulation code for stamping analysis. It includes the GUI, the solver (Windows SMP double and Single), material database from Tiwaquest and BAOSTEEL.

For installation instructions, see [Appendix A: Installing Ansys Forming on a Windows System \(p. 76\)](#)

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Name:

FORMING\_2024R1\_<platform>.zip

<platform> = WINX64 (for Windows x64)

## Platform Availability and Package Format:

Windows x64 ... zip format

## Applications Supported by this Package:

- Ansys Forming

## Required License Manager:

Ansys License Manager

## Also Included in this Package:

N/A

## You may also want this Package:

N/A

## Appendix A: Installing Ansys Forming on a Windows System

Be aware that Windows 10 uses a feature called User Account Control (UAC) to control privileges and automatically reduce the potential of security breaches in the operating system. However, UAC limits your accessibility to system areas and can cause unpredictable behavior in Ansys products. Because of this limitation, we strongly recommend performing the installation with full administrative options.

### Recommended Installation:

- UAC should be turned off and installation performed with full administrative privileges (using **Run as Administrator** from the context menu). Follow your operating system instructions for disabling UAC.
1. Installing Ansys Forming requires that no Ansys processes are running on your computer. Close all Windows applications and ensure that no Ansys processes are running before continuing.
  2. Make sure you are logged on as an administrator and have full administrative privileges.
  3. Right click **setup.exe** and choose **Run as administrator** to start the installation.
  4. Click **Install Ansys Products**.
  5. The License Agreement screen appears. Read the license agreement, and if you agree, click **I Agree** to accept the terms and click **Next**. You must select **I Agree** to continue with the installation.
  6. Enter the Release 2024 R1 installation directory and click **Next**.
  7. The product selection dialog appears. Verify that Ansys Forming is selected.

The amount of disk space required and the disk space available appear at the bottom of the window. If the disk space required exceeds the disk space available, be sure that you have sufficient space before continuing.

Click **Next**.

8. A summary of the selected products for installation is displayed. Information shown includes platform, installation directory, and products. Review the information carefully, and if correct, click **Next** to begin the installation.
9. The installation window displays the individual actions as they occur. When the installation is complete, click **Next**.
10. The window displays any installation errors or warnings. Review this information carefully. Click **Exit** to complete the installation.

---

# Chapter 19: Download Center Info - GCC Compiler

---

## GCC Compiler Package Overview

This package contains the GNU GCC compiler 8.2.0 for use with User Programmable Features (UPF), User Defined Functions (UDF), or other customization options for Ansys Mechanical APDL and Autodyn on Linux platforms.

This compiler does not replace any compiler currently on your system. It can be installed in addition to any compiler you currently have on your system.

Refer to the installation steps in [Appendix I - Installing the GCC Compiler \(p. 78\)](#)

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Name:

linux-toolchain-8.2.0-01.zip

## Platform Availability and Package Format:

Linux x64 ... zip format

## Applications Supported by this Package:

- Mechanical APDL
- Autodyn

## Required License Manager:

N/A

## Also Included in this Package:

N/A

## You may also want this Package:

N/A

## Appendix I - Installing the GCC Compiler

1. Click the GCC Compiler download option.
2. Select your desired download directory and click **Save**.

This downloads the compressed tar file linux-toolchain-8.2.0-01.zip.

3. Extract the file (tar xzf linux-toolchain-8.2.0-ANSL001.tar.gz) to a location on your system and add the location to your PATH, or set ANS\_GCC\_PATH for access to the GCC 8.2.0 compiler.

### For example:

#### MAPDL and Autodyn Settings:

```
setenv PATH <installed_location>/bin:$PATH (for csh/tcsh shell)
export PATH=<installed_location>/bin:$PATH (for sh/bash shell)
```

#### MAPDL Only Settings:

```
setenv ANS_GCC_PATH <installed_location>/bin (for csh/tcsh shell)
export ANS_GCC_PATH=<installed_location>/bin (for sh/bash shell)

gcc --version
```

The GCC version should display gcc (Ansys-20190911) 8.2.0

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---

# Chapter 20: Download Center Info - ISO

---

## ISO Package Overview

This selection is the combination of the Structures, Fluids, PrepPost, and AIM primary physics packages.

## Ansys Release:

2024 R1

## Prerequisites:

Microsoft .NET Framework 4.6.2 is required for the Windows version of this package. If your computer does not have .NET 4.6.2 installed, the package installation program installs .NET 4.6.2 as a prerequisite and may require a system restart after exiting the installation and before running any Ansys products.

## Updates:

None Available

## Package Name:

- Windows x64
  - ANSYS2024R1\_WINX64\_Disk1.iso
  - ANSYS2024R1\_WINX64\_Disk2.iso
  - ANSYS2024R1\_WINX64\_Disk3.iso
- Linux x64
  - ANSYS2024R1\_LINX64\_Disk1.iso
  - ANSYS2024R1\_LINX64\_Disk2.iso
  - ANSYS2024R1\_LINX64\_Disk3.iso

## Platform Availability and Package Format:

Windows x64 ... ISO format

Linux x64 ... ISO format

## What do I do with an ISO Image?

An ISO image is a disc image containing the file contents that would be found on an installation DVD. To install from an ISO Image, download the packages and do one of the following:

- Burn each ISO Image to a DVD and install from the DVDs
- Windows - Extract the contents of the ISO file to a temporary directory, using an archiving utility such as Winrar, Winzip, or 7zip. Run setup.exe from the top level folder.
- Linux - Mount the image, using "mount -o loop -t iso9660 filename.iso /mnt/iso" command. Run "./INSTALL" from the top level folder.

## Applications Supported by this Package:

- Mechanics PrepPost/Solver Bundles
  - Ansys Mechanical Enterprise
  - Ansys Mechanical Pro
  - Ansys Mechanical Premium
  - Ansys Mechanical CFD
  - Ansys Structural
  - Ansys Professional NLS
  - Ansys Professional NLT
  - Ansys DesignSpace
  - Ansys Autodyn
  - Ansys Explicit STR
  - Ansys Rigid Body Dynamics
- Mechanics Solvers
  - Ansys Mechanical Enterprise Solver
  - Ansys Structural Solver
- Mechanics PrepPost
  - Ansys Mechanical Enterprise PrepPost
  - Ansys Autodyn PrepPost
  - Ansys Composite PrepPost
- Fluids PrepPost/Solver Bundles

- 
- Ansys CFD
  - Ansys FLUENT
  - Ansys CFX
  - Ansys CFD Professional
  - Ansys CFD Enterprise
  - Ansys CFD Premium
  - Ansys CFD-Flo
  - Fluids Solvers
    - Ansys CFD Solver
    - Ansys CFD Enterprise Solver
    - Ansys CFD Premium Solver
    - Ansys FLUENT Solver
    - Ansys CFX Solver
    - Ansys CFD-Flo Solver
  - Fluids PrepPost
    - Ansys CFD PrepPost
    - Ansys EnSight
    - EnVison Pro
  - Fluids Modules
    - Ansys Fluent V2F Module (2 Processes)
    - Ansys Fluent V2F Module (Unlimited)
    - Ansys FLUENT Fuel Cell Module
    - Ansys CFD MHD
    - Ansys CFX-RIF Flamelet Library Generator
    - Ansys RBF-Morph Module
    - Ansys FENSAP-ICE
  - Fluids CAD Embedded options
    - Fluent for CATIA V5

- Fluent for CATIA V5 Pre
- Fluent for CATIA V5 Analyst
- TurboMachinery Applications
  - Ansys TurboGrid
  - Ansys BladeModeler
  - Ansys Vista TF
- Combustion and Chemical Reactions
  - Ansys FORTE CFD
  - Ansys Collaborator License
  - Ansys CHEMKIN-PRO
  - Ansys CHEMKIN-PRO HPC
  - Ansys CHEMKIN Enterprise
  - Ansys Reaction Workbench Add-on
  - Ansys ENERGICO
  - Ansys ENERGICO Add-on
- Electronic Thermal Design Products
  - Ansys Icepak
- Polymer Processing and Glass Forming Products
  - Ansys POLYFLOW
  - Ansys POLYFLOW Solver
- Mechanics Modules
  - Ansys Fatigue Module
- LS-DYNA
  - Ansys LS-DYNA
  - Ansys LS-DYNA HPC
- AQWA
  - Ansys Aqwa Suite
  - Ansys Aqwa Suite with Coupled Cable Dynamics



- 
- Geometry Modeling
    - Ansys DesignModeler
    - Ansys SpaceClaim (Windows Only)
    - Ansys SpaceClaim Catia V5 Interface (Windows Only)
  - Meshing
    - Ansys Meshing
    - Ansys Extended Meshing
    - Ansys ICEM CFD Hexa
    - Ansys ICEM CFD Tetra/Prism
  - CAD/Geometry Interfaces
    - Geometry Interface for JT
    - Ansys Geometry Interface for Creo Parametric
    - Ansys Geometry Interface for Autodesk
    - Ansys Geometry Interface for Solid Edge
    - Ansys Geometry Interface for SolidWorks
    - Ansys Geometry Interface for Creo Elements/Direct Modeling
    - Ansys Geometry Interface for SAT
    - Ansys Geometry Interface for CATIA V5
    - Ansys Geometry Interface for CATIA V6
    - Ansys Geometry Interface for NX
    - Ansys Geometry Interface for Parasolid
  - PDM Interfaces
    - Ansys Interface for TeamCenter
  - HPC
    - Ansys HPC
    - Ansys HPC Pack
  - HPC Parametric
    - Ansys HPC Parametric Pack

- EKM and CAE Interfaces
  - Ansys EKM Analyst
  - Ansys EKM Shared
  - Ansys CAE Interface for ABAQUS
  - Ansys CAE Interface for NASTRAN
  - Ansys CAE Interface for SAMCEF
- Multiphysics PrepPost/Solver Bundles
  - Ansys AIM Pro
- Multiphysics Options
  - Ansys Customization Suite
  - Ansys DesignXplorer
- Ansys Sherlock
- Optical Products
  - ANSYS SPEOS Enterprise (Windows Only)
  - ANSYS SPEOS Premium (Windows Only)
  - ANSYS SPEOS Pro (Windows Only)
  - ANSYS SPEOS Optical Part Design (Windows Only)
  - ANSYS SPEOS Optical Sensor Test (Windows Only)
  - ANSYS SPEOS HUD Design & Analysis (Windows Only)
  - ANSYS SPEOS Far Infrared Extension (Windows Only)
  - SPEOS for NX (Windows Only)
  - SPEOS for NX Enterprise (Windows Only)
  - SPEOS for NX Premium (Windows Only)
  - SPEOS for NX Pro (Windows Only)
  - SPEOS for NX Optical Part Design (Windows Only)
  - SPEOS for NX Optical Sensor Test (Windows Only)
  - SPEOS for NX HUD Design & Analysis (Windows Only)
  - SPEOS for NX Far Infrared Extension (Windows Only)

- 
- SPEOS for NX Optical Design Optimizer (Windows Only)
  - SPEOS for Creo Parametric (Windows Only)
  - SPEOS for Creo Parametric Enterprise (Windows Only)
  - SPEOS for Creo Parametric Premium (Windows Only)
  - SPEOS for Creo Parametric Pro (Windows Only)
  - SPEOS for Creo Parametric Optical Sensor Test (Windows Only)
  - SPEOS for Creo Parametric Far Infrared Extension (Windows Only)
  - SPEOS for Creo Parametric Optical Design Optimizer (Windows Only)
  - ANSYS SPEOS Solver
  - ANSYS OPTIS HPC

## **Academic Products Supported by this Package:**

- Academic Research
  - Ansys Academic Research Mechanical and CFD
  - Ansys Academic Research Mechanical
  - Ansys Academic Research LS-DYNA
  - Ansys Academic Research CFD
  - Ansys Academic Research POLYFLOW
  - Ansys Academic Research HPC
  - Ansys Academic Research LS-DYNA HPC
- Academic Teaching
  - Ansys Academic Teaching Mechanical and CFD
  - Ansys Academic Teaching Mechanical
  - Ansys Academic Teaching CFD
- Academic Toolbox
  - Ansys Academic Preprocessing Tools
  - Ansys Academic Fuel Cell Tools
  - Ansys Academic EKM Shared
  - Ansys Academic Composite Tools

- Ansys Academic SpaceClaim Tools

## **Required License Manager:**

Ansys License Manager

## **Also Included in this Package:**

- Ansys License Manager
- Ansys Product Documentation
- RSM
- Ansys Workbench Platform

## **You may also want this Package:**

- Ansys Release Documentation

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# Chapter 21: Download Center Info - Language Packs

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## Language Package Overview

The Ansys Language Packs contain translated documentation for one or more languages. These packs can be installed locally, allowing you to view the Ansys help for specific products in your preferred language without internet access. For Local Help installation instructions, see [Ansys Language Pack Local Help Installation \(p. 88\)](#) at the end of this document. For known issues and limitations, see [Language Pack Known Issues and Limitations \(p. 91\)](#).

**Table 21.1: Included languages by pack:**

Language Pack	Available Languages
European Language Pack 1	Dutch, French, German, Italian
European Language Pack 2	Czech, Hungarian, Polish, Russian
Asian Language Pack 1	Chinese Simplified, Chinese Traditional
Asian Language Pack 2	Japanese, Korean
South American Language Pack	Portuguese, Spanish

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Names:

- EUROPEAN1\_LANGUAGEPACK\_2024R1\_<platform>.<zip/tgz>
- EUROPEAN2\_LANGUAGEPACK\_2024R1\_<platform>.<zip/tgz>
- ASIAN1\_LANGUAGEPACK\_2024R1\_<platform>.<zip/tgz>
- ASIAN2\_LANGUAGEPACK\_2024R1\_<platform>.<zip/tgz>
- SOUTHAMERICAN1\_LANGUAGEPACK\_2024R1\_<platform>.<zip/tgz>

## Platform Availability and Package Format:

<platform> = WINX64 (for Windows x64)

<platform> = LINUX64 (for Linux x64)

Windows x64 ... zip format

Linux x64 ... tgz format

## 21.1. Ansys Language Pack Local Help Installation

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**IMPORTANT NOTE:** If you have already set the ANSYS\_INTERNET\_DOC environment variable, you will need to unset it before running the local install. The environment variable will take precedence over the local install and prevent the installation from correctly configuring your system.

### Windows Installation Steps

1. Download the appropriate Ansys Language Pack from:

*Download Center>Tools>Documentation>Language Packs*

2. Extract the package to a working directory of your choice.
3. Close all Windows applications and ensure that no Ansys processes are running before continuing.
4. Run <working directory>\setup.exe as administrator.

The Ansys, Inc. Installation Launcher appears.

5. Click the **Install Ansys Products** option.

The license agreement appears.

6. Read the agreement, and if you agree to the terms and conditions, select **I Agree**. Click **Next**.

7. The directory where you installed the Ansys, Inc. products is shown in the **Install Directory** field. You can install the products into any directory you want, but you must have write permissions to the directory you choose. If you select a directory other than the directory where the Ansys products are installed, you will have additional post-installation steps. Do not change any other options on this page.

When you have selected your installation directory, click **Next**.

8. The languages available from this package are displayed. Select your desired language and click **Next**.
9. A summary of the selected installation packages appears. Review the information carefully, and if correct, click **Next** to continue the installation.
10. When the installation is done, the product installation window reappears with a message noting that the installation is complete.
11. Depending on your installation scenario, run the appropriate configuration described below:
  - a. If you installed the documentation to the same directory as your product installation, you can now run the help normally. No further configuration is needed.

**Note:** If there are multiple users accessing the help, each additional user must point to the help installation directory by performing the steps described below.

b. Perform the following steps if any of the following scenarios apply:

- You have an existing product installation but installed the language pack documentation to a directory other than the product installation.
- The account used to install the local help is not the end user's or you have multiple end users.

i. Run **Start>All Programs>Ansys 2024 R1>Ansys Help Configuration 2024 R1**.

The Ansys Help Configuration Tool appears.

ii. Select the **Ansys Local Help** option.

iii. By default, the local help directory corresponds to the installation directory you defined in step #7. If necessary, click **Browse** and locate the \commonfiles\help directory where you installed the help files. (**Example:** C:\Local doc\Ansys Inc\v241\commonfiles\help)

iv. Click **Select Folder**.

The message "**Help files found. Click Save to use these files.**" is displayed.

v. The language for the application and viewer help defaults to the operating system regional language setting. If you need to change the language, select the appropriate language from the available dropdown menu. The appropriate language pack must be installed prior to performing this step.

**Note:** When displaying a language in the help, the order of selection precedence is: A) the language set in the Ansys Help Configuration Tool, B) the language supplied by the product and C) the operating system regional settings language.

vi. After completing the configuration, click **Save**.

You can now run the help normally.

## Linux Installation Steps

1. Download the appropriate Ansys Language Pack from:

*Download Center>Tools>Documentation>Local Documentation Installation*

2. Extract the package to a working directory of your choice.

3. Run **<working directory>/doonly/linux/INSTALL**.

4. The Ansys, Inc. Installation Launcher appears.

5. Click the **Install Ansys Products** option.

The license agreement appears.

6. Read the agreement, and if you agree to the terms and conditions, select **I Agree**. Click **Next**.

7. The directory where you installed the Ansys, Inc. products is shown in the **Install Directory** field. You can install the products into any directory you want, but you must have write permissions to the directory you choose. If you select a directory other than the directory where the Ansys products are installed, you will have additional post-installation steps. Do not change any other options on this page.

When you have selected your installation directory, click **Next**.

8. The languages available from this package are displayed. Select your desired language and click **Next**.
9. A summary of the selected installation packages appears. Review the information carefully, and if correct, click **Next** to continue the installation.

10. When the installation is done, the product installation window reappears with a message noting that the installation is complete.

11. Depending on your installation scenario, run the appropriate configuration described below:

- a. If you installed the documentation to the same directory as your product installation, you can now run the help normally by issuing following command from the v241 directory. No further configuration is needed.

*Tools/mono/Linux64/bin/mono commonfiles/help/HelpViewer/ANSYSHelpViewer.exe*

**Note:** If there are multiple users accessing the help, each additional user must point to the help installation directory by performing the steps described below.

- b. Perform the following steps if any of the following scenarios apply:

- You have an existing product installation but installed the language pack documentation to a directory other than the product installation.
- The account used to install the local help is not the end user's or you have multiple end users.

- i. Issue the following command from the v241 directory to configure the new help location:

*Tools/mono/Linux64/bin/mono commonfiles/help/HelpViewer/ANSYSHelpConfigurationTool.exe*

The Ansys Help Configuration Tool appears.

- ii. Select the **Ansys Local Help** option.

- iii. By default, the local help directory corresponds to the installation directory you defined in step #7. If necessary, enter the /commonfiles/help directory where you installed the help files. (**Example:** /local\_doc/ansys\_inc/v241/commonfiles/help)

- iv. The language for the application and viewer help defaults to the operating system regional language setting. If you need to change the language, select the appropriate language from the available dropdown menu. The appropriate language pack must be installed prior to performing this step.



**Note:** When displaying a language in the help, the order of selection precedence is: A) the language set in the Ansys Help Configuration Tool, B) the language supplied by the product and C) the operating system regional settings language.

- v. Click **Save**.

You can now run the help normally by issuing following command from the v241 directory:

```
Tools/mono/Linux64/bin/mono commonfiles/help/HelpViewer/ANSYSHelpViewer.exe
```

## 21.2. Language Pack Known Issues and Limitations

### 21.2.1. Displaying Languages

#### The Ansys Help Viewer is not displaying the correct language.

When installing the language packs on Windows, the installation program uses the user interface language as the default. If this is not the language you wish to display, perform the following steps:

1. Run **Start>All Programs>Ansys 2024 R1>Ansys Help Configuration 2024 R1**.

The Ansys Help Configuration Tool appears.

2. From the **Language** dropdown menu, select the desired language.

### 21.2.2. Uninstalling Language Packs

#### The Ansys unified product uninstaller will only remove the language help files contained in the last language pack that was installed.

##### For example:

You install the Asian Language Pack 1 (containing Chinese Simplified, Chinese Traditional, Korean) and then subsequently install the European Language Pack 2 (containing Czech, Hungarian, Polish, Russian). The Ansys unified product installer selection menu includes options for the languages installed in both packs, but you will only be able to uninstall the language help files from European Language Pack 2 (Czech, Hungarian, Polish, Russian).

To uninstall the other language help files:

1. Navigate to the `commonfiles\help` directory where you installed the language help files.

In this directory, you will see folders named using language codes (de, fr, ja, zh, etc.).

2. Manually delete the appropriate language code folder. For example, delete the "fr" directory from `commonfiles\help\` to remove the French language help content.

## 21.3. Included Translated Products

**Table 21.2: Products with translated documentation:**

<b>Product</b>	<b>Document</b>	<b>Languages</b>
Ansys Release Documentation	Global Release Notes	Japanese
Additive Manufacturing	Additive Manufacturing Release Notes LPBF Simulation Guide	Japanese
Ansys Sound	Ansys Sound Release Notes Ansys Sound: Analysis and Specification User's Guide	Japanese
Autodyn	Autodyn Release Notes Autodyn User's Manual	Japanese
CAD Integration	CAD Release Notes CAD Integration	Japanese
CFX	CFX Release Notes CFX Introduction CFX-Pre User's Guide CFX-Solver Modeling Guide CFX-Solver Manager User's Guide CFX-Solver Theory Guide CFX Reference Guide	Japanese
Customization Suite	ACT Release Notes ACT Customization Guide for Electronics Desktop ACT Customization Guide for Fluent ACT Customization Guide for Mechanical ACT Customization Guide for Workbench Workbench Scripting Guide	Japanese
DesignModeler	DesignModeler Release Notes Ansys DesignModeler User's Guide	Japanese
DesignXplorer	DesignXplorer Release Notes DesignXplorer User's Guide	Japanese
Discovery	Discovery Release Notes	Japanese

<b>Product</b>	<b>Document</b>	<b>Languages</b>
Discovery	Discovery Documentation	Chinese Simplified, Chinese Traditional, French, German, and Japanese
EnSight	EnSight Release Notes Ansys EnSight User Manual	Japanese
Fluent	Fluent Release Notes Fluent Customization Manual	Japanese
Fluent	Fluent User's Guide Fluent Theory Guide Fluent in Workbench User's Guide	Japanese and Korean
Installation	Ansys, Inc. Installation Guides Ansys Automated Installer Guide Using Remote Display Technologies with Ansys Workbench Products	Japanese
Licensing	Ansys, Inc. Licensing Guide Ansys Licensing Portal Administrator's Guide Ansys Licensing Portal User's Guide Ansys, Inc. License Management Guide Ansys Shared Web Licensing Administrator's Guide Ansys Shared Web Licensing User's Guide	Japanese
LS-DYNA	LS-DYNA User's Guide	Japanese
Mechanical APDL	Mechanical APDL Release Notes Acoustic Analysis Guide Advanced Analysis Guide Ansys Parametric Design Language Guide Basic Analysis Guide Command Reference Connection User's Guide Contact Technology Guide Context Sensitive Help	Japanese

Product	Document	Languages
	Coupled-Field Analysis Guide Cyclic Symmetry Analysis Guide Element Reference Feature Archive Fluids Analysis Guide Fracture Analysis Guide Harmonic Balance Method Analysis Guide Low-Frequency Electromagnetic Analysis Guide Material Reference Modeling and Meshing Guide Multibody Analysis Guide Multistage Cyclic Symmetry Analysis Guide Nonlinear Adaptivity Analysis Guide Operations Guide Parallel Processing Guide Performance Guide Programmer's Reference Rotordynamic Analysis Guide Substructuring Analysis Guide Theory Reference Thermal Analysis Guide Tire Analysis Guide Introductory Tutorials Technology Showcase: Example Problems	
Mechanical APDL	Structural Analysis Guide	Japanese and Korean
Mechanical Application	Mechanical Application Release Notes Scripting in Mechanical Guide	Japanese

Product	Document	Languages
	Explicit Dynamics Analysis Guide Mechanical Add-ons Guide	
Mechanical Application	Mechanical User's Guide Mechanical Object Reference	Japanese and Korean
Meshing	Meshing Release Notes Meshing User's Guide	Japanese
Motion	Motion Release Notes Motion in Workbench User Guide	Japanese
optiSLang	optiSLang Release Notes	Japanese
optiSLang	optiSLang User's Guide optiSLang Tutorials	Japanese and Korean
optiSLang	Methods for Multi-Disciplinary Optimization and Robustness Analysis optiSLang Excel Add-in Guide optiSLang Interfaces and Customization Guide optiSLang Installation and Licensing Guide	Korean
RSM	Remote Solve Manager (RSM) Release Notes Remote Solve Manager User's Guide	Japanese
Sherlock	Sherlock Release Notes Sherlock User's Guide Sherlock Theory Reference	Japanese
SpaceClaim	SpaceClaim Release Notes	Japanese
SpaceClaim	SpaceClaim Documentation	Chinese Simplified, Chinese Traditional, Czech, Dutch, French, German, Hungarian, Italian, Japanese, Korean, Polish, Portuguese, Russian, and Spanish.  <b>Note:</b> The "Meshing" section of the SpaceClaim documentation

Product	Document	Languages
		is translated into these four languages only: Chinese Simplified, French, German, and Japanese
Speos	Speos Release Notes Speos Labs Release Notes Speos HPC Release Notes Speos for NX Release Notes Speos HPC User's Guide Speos for NX User's Guide SPEOS for Creo Parametric User's Guide	Japanese
Speos	Speos User's Guide Speos Labs User's Guide	Japanese and Korean
System Coupling	System Coupling Release Notes System Coupling User's Guide	Japanese
TurboSystem	TurboSystem Release Notes TurboSystem User's Guide	Japanese
Verification Manuals	Ansys Workbench Verification Manual Ansys Mechanical APDL Verification Manual Fluid Dynamics Verification Manual	Japanese
Workbench	Workbench Release Notes Workbench User's Guide Engineering Data User's Guide	Japanese

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# Chapter 22: Download Center Info - License Manager

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## License Manager Package Overview

This package contains the Ansys License Manager. The Ansys License Manager is required to run Ansys products.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

- ANSYSLICMAN\_2024R1\_<platform>.<zip/tgz>  
    <platform> = WINX64 (for Windows x64)  
    <platform> = LINX64 (for Linux x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

Linux x64 ... tgz format

### Applications Supported by this Package:

N/A

### Required License Manager:

N/A

### Also Included in this Package:

N/A

## You may also want this Package:

- [Ansys Release Documentation](#)



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# Chapter 23: Download Center Info - Materials

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## Granta Selector Package Overview

This package contains the Ansys Granta Selector product. Ansys Granta Selector allows you to perform intelligent materials selection and graphical analysis of materials properties. A comprehensive materials data library enables you to use materials to innovate and evolve your products, quickly identify solutions to material issues, confirm and validate your choice of materials and reduce material and development costs.

For information on downloading and installing the Ansys Granta MI Enterprise package, see the [Granta MI Enterprise Package Overview \(p. 101\)](#) below.

For information on downloading and installing the Ansys Granta MI Pro package, see the [Granta MI Pro Package Overview \(p. 102\)](#) below.

For information on downloading and installing the Ansys Granta EduPack package, see the [Granta EduPack Package Overview \(p. 103\)](#) below.

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Name:

GRANTASELECTOR\_2024R1\_WINX64.zip

## Platform Availability and Package Format:

Windows x64 ... zip format

## Applications Supported by this Package:

- Ansys Granta Selector
- Ansys Mechanical
  - Ansys Workbench
- Ansys Discovery

## **Users of the following items should also download and install this package:**

- Ansys Granta Research Selector
- Ansys Granta Research Advanced Materials -Aero
- Ansys Granta Research Advanced Materials -Metals
- Ansys Granta Research Advanced Materials - Polymers
- Ansys Granta Research Advanced Materials -Composites
- Ansys Granta Research Advanced Materials -AdditiveManufacturing
- Ansys Granta Research Advanced Materials -Eco
- Ansys Granta Research Advanced Materials -ESDU
- Ansys Granta Research Advanced Materials - Electromagnetics
- Ansys Granta Research Advanced Materials – High Temperature Alloys

## **Required License Manager:**

Ansys License Manager

## **Also Included in this Package:**

- Ansys Granta Advanced Materials -Aero
- Ansys Granta Advanced Materials -Metals
- Ansys Granta Advanced Materials - Polymers
- Ansys Granta Advanced Materials -Composites
- Ansys Granta Advanced Materials -AdditiveManufacturing
- Ansys Granta Advanced Materials -Eco
- Ansys Granta Advanced Materials -ESDU
- Ansys Granta Research Advanced Materials - Electromagnetics
- Ansys Granta Research Advanced Materials – High Temperature Alloys

## **You may also want this Package:**

- Ansys License Manager

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## Granta MI Enterprise Package Overview

This package contains the Ansys Granta MI Enterprise product. Ansys Granta MI Enterprise is the leading system for materials information management in engineering enterprises. A single 'gold source' for your organization's materials IP saves time, cuts costs, and eliminates risk. Capture and re-use vital knowledge about your metals, plastics, and composites. Provide accurate data for CAD, CAE, and PLM. Drive material innovation, empower design, and solve materials-related business problems.

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### Note:

For more information on the supported commercial product installation files available in this package, see the Granta MI Product to Installer files mapping .xlsx spreadsheet included in the downloaded GRANTAMIENTERPRISE\_2021R2\_WINX64.zip package.

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### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

GRANTAMIENTERPRISE\_2024R1\_WINX64.zip

### Platform Availability and Package Format:

Windows x64 ... zip format

For information on supported hardware and software platforms, see the Granta\_MI\_2024\_R1\_System\_Requirements.pdf document in the GRANTAMIENTERPRISE\_2024R1\_WINX64.zip package.

### Applications Supported by this Package:

- Ansys Granta MI -Enterprise Server
- Ansys Granta MI -User
- Ansys Granta MI -Metals Template
- Ansys Granta MI -Composites Template
- Ansys Granta MI -AdditiveManufacturingTemplate
- Ansys Granta MI -Advanced Workflow
- Ansys Granta MI -Restricted Substances
- Ansys Granta MI - Sustainabilit

- Ansys Granta MI -PLM Sync
- Ansys Granta Advanced Materials -Aero
- Ansys Granta Advanced Materials -Metals
- Ansys Granta Advanced Materials - Polymers
- Ansys Granta Advanced Materials -Composites
- Ansys Granta Advanced Materials -AdditiveManufacturing
- Ansys Granta Advanced Materials -Medical
- Ansys Granta Advanced Materials -Eco
- Ansys Granta Advanced Materials -ESDU
- Ansys Granta Research Advanced Materials - Electromagnetics
- Ansys Granta Research Advanced Materials – High Temperature Alloys

### **Required License Manager:**

Ansys License Manager

### **Also Included in this Package:**

N/A

### **You may also want this Package:**

Ansys License Manager

### **Granta MI Pro Package Overview**

This package contains the Ansys Granta MI Pro product. Ansys Granta MI Pro provides fast, direct access to company material data and reference data from Ansys Granta. Easy to implement, Granta MI Pro is designed to meet the focused needs of design and simulation teams.

### **Ansys Release:**

2024 R1

### **Updates:**

None Available

### **Package Name:**

GRANTAMIPRO\_2024R1\_WINX64.zip

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## Platform Availability and Package Format:

Windows x64 ... zip format

For information on supported hardware and software platforms, see the Granta MI Pro 2024 R1 System Requirements.pdf document in the GRANTAMIPRO\_2024R1\_WINX64.zip package.

## Applications Supported by this Package:

- Ansys Granta MI -Pro Server
- Ansys Granta MI -User
- Ansys Granta Advanced Materials – Electromagnetics
- Ansys Granta Advanced Materials – Aero
- Ansys Granta Advanced Materials - ESDU

## Required License Manager:

Ansys License Manager

## Also Included in this Package:

N/A

## You may also want this Package:

Ansys License Manager

## Granta EduPack Package Overview

This package contains the Ansys Granta EduPack product. Ansys Granta EduPack is the world-leading teaching resource for Materials in engineering, science, processing, and design. A unique set of comprehensive materials data, powerful visualisation tools and teaching resources support undergraduate Materials education across Engineering, Design and Science courses.

## Ansys Release:

2024 R1

## Updates:

### 2024 R1.01

#### Update Package Name:

GRANTAEDUPACK\_2024R1.01\_WINX64.zip

### **Resolved Issues**

- The values of two attributes were swapped in every Element record: Climate change (CO2-eq), primary production (virgin grade) and Embodied energy, primary production (virgin grade). This has now been corrected.
- This did not affect values in MaterialUniverse, and only affected the Elements table in the following introductory-level databases: The Elements; Level 2 Bioengineering; Level 2 Sustainability; Materials Science and Engineering.

### **Package Name:**

GRANTAEDUPACK\_2024R1\_WINX64.zip

### **Platform Availability and Package Format:**

Windows x64 ... zip format

### **Applications Supported by this Package:**

N/A

### **Academic Products Supported by this Package:**

- Ansys Granta EduPack Introductory
- Ansys Granta EduPack
- Ansys Workbench
- Ansys Discovery

### **Required License Manager:**

Ansys License Manager

### **Also Included in this Package:**

Ansys Granta EduPack Introductory

### **You may also want this Package:**

Ansys License Manager

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# Chapter 24: Download Center Info - Granta MI Enterprise Documentation

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## Documentation Package Overview

There are two documentation packages that can be downloaded:

- **Product:** This package contains the Granta MI Enterprise documentation in PDF format. Because our documentation is updated on a regular basis, the most current Ansys product documentation can be found on our internet help site.
- **Local Help:** Granta MI Enterprise documentation is now online. With online documentation, you have access to the best and latest content, updated as soon as it is available. If you do not have Internet access, or if you want to run help locally, you can download this installable version of our Granta MI Enterprise product documentation.

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Names:

- GRANTAMIENTERPRISEPDFDOC\_2024R1\_WINX64.zip
- GRANTAMIENTERPRISELOCALHELP\_2024R1\_WINX64.zip

## Platform Availability and Package Format:

Windows x64 ... zip format

## Applications Supported by this Package:

N/A

## Required License Manager:

N/A

## **Also Included in this Package:**

N/A

## **You may also want this Package:**

N/A



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# Chapter 25: Download Center Info - Materials Supplementary

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## Granta MI – Restricted Substances and Sustainability Package Overview

This package contains both the Ansys Granta MI - Restricted Substances and Ansys Granta MI - Sustainability products – add-ons to Ansys Granta MI Enterprise. Ansys Granta MI Restricted Substances enables best practice strategies to minimize substance risk and provides practical analytics, reporting and decision-making tools. Our unrivalled, regularly updated knowledge-base covers thousands of restricted substances, 100+ international legislations, regulations, lists, and standards, property data on the full range of engineering materials and specialist information on coatings. Materials are linked to substances that they contain. Substances are linked to related legislation. Ansys Granta MI – Sustainability offers specialty teams working in early design the reference data, analysis tools and management framework to make proactive, data-driven decisions on materials. With access to hundreds of material properties they can do detailed analysis of their products, identify alternatives and publish preferred materials lists that include indicators on sustainability. The two products have powerful, separate bill-of-materials analysis capabilities but share a common reference database.

For information on downloading and installing the Ansys Granta MI Pro Databases Only package, see the [Ansys Granta MI Pro Databases Only Package Overview \(p. 108\)](#) below.

For information on downloading and installing the Ansys Granta MI Pro Gateways package, see the [Ansys Granta MI Pro Gateways Package Overview \(p. 109\)](#) below.

### Anslys Release:

2024 R1

### Updates:

None Available

### Package Name:

GRANTAMIRESTRICTEDSUBSTANCES\_2024R1\_WINX64.zip

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

- Ansys Granta MI Restricted substances

- Ansys Granta MI - Sustainability

## **Users of the following items should also download and install this package:**

- Ansys Granta MI

## **Required License Manager:**

Ansys License Manager

## **Also Included in this Package:**

N/A

## **You may also want this Package:**

- Ansys License Manager

## **Ansys Granta MI Pro Databases Only Package Overview**

This package contains two database backups for the Ansys Granta MI Pro product required by customers installing Granta MI Pro on the cloud, using a standalone SQL Server installation.

## **Ansys Release:**

2024 R1

## **Updates:**

None Available

## **Package Name:**

GRANTAMIPRODATABASES\_2024R1\_WINX64.zip

## **Platform Availability and Package Format:**

Windows x64 ... zip format

## **Applications Supported by this Package:**

- Ansys Granta MI Pro

## **Required License Manager:**

N/A

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## Also Included in this Package:

N/A

## You may also want this Package:

N/A

## Ansys Granta MI Pro Gateways Package Overview

This package contains all of the Ansys Granta MI Materials Gateways installers applicable for use with Granta MI Pro.

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Name:

GRANTAMIPROGATEWAYS\_2024R1\_WINX64.zip

## Platform Availability and Package Format:

Windows x64 ... zip format

## Applications Supported by this Package:

- Ansys Granta MI Pro

## Required License Manager:

N/A

## Also Included in this Package:

N/A

## You may also want this Package:

Ansys License Manager

## **Ansys Granta MI Machine LearningAI+ Package Overview**

This package contains Ansys Granta MI Machine LearningAI+, the machine learning solution for Granta MI that can provide actionable insights into your materials data by analyzing large amounts of sparse, noisy data without the need for extensive preparation and clean-up. This package must be installed on a Machine Learning application server separate to the Granta MI server, see the Installation & Configuration Guide in this package.

### **Ansys Release:**

2024 R1

### **Updates:**

None Available

### **Package Name:**

GRANTAMIML\_2024R1\_WINX64.zip

### **Platform Availability and Package Format:**

Windows x64 ... zip format

### **Applications Supported by this Package:**

- Ansys Granta MI AI+

### **Required License Manager:**

N/A

### **Also Included in this Package:**

N/A

### **You may also want this Package:**

N/A

---

# Chapter 26: Download Center Info - Modal Field ROM Extraction for Mechanical to Twin Builder

---

## Modal Field ROM Extraction for Mechanical to Twin Builder Package Overview

The Modal Field ROM Extraction for Mechanical to Twin Builder package contains an extension that can be added to Ansys Workbench and used in Ansys Mechanical in a modal analysis followed by a transient MSUP analysis. It allows the extraction of a field ROM component towards Ansys Twin Builder for a downstream system analysis (with other physical components and/or ROMs).

Licenses for Ansys Twin Builder and Ansys Mechanical must be purchased separately.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

Modal\_field\_ROM\_2024R1\_<platform>.zip

<platform> = WINX64 (for Windows x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

- Ansys Workbench
- Ansys Twin Builder
  - Ansys Twin Builder Premium
  - Ansys Twin Builder Enterprise
  - Ansys Twin Builder Pro

## **Required License Manager:**

Ansys License Manager

## **Also Included in this Package:**

N/A

## **You may also want this Package:**

- Ansys License Manager

---

# Chapter 27: Download Center Info - Modeler Files For CATIA v5

---

## Modeler Files For CATIA v5 Package Overview

This package enables CATIA v5 import and export for Electronics applications.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

MCADTRANSLATORS\_2024R1\_<platform>.<zip/tar>

<platform> = WINX64 (for Windows x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

- Modeler Files For CATIA 5
  - Ansys ALinks for MCAD CATIA

### Required License Manager:

Ansys License Manager

### Also Included in this Package:

N/A

### You may also want this Package:

N/A





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# Chapter 28: Download Center Info - multiPlas

---

## multiPlas Package Overview

This package contains ANSYS multiPlas. multiPlas allows you to analyze the stability and serviceability of structures. Due to this realistic simulation, additional load bearing capacities can often be explored.

multiPlas supports material modeling for concrete, steel and fiber reinforced concrete, UHPC, ceramics, steel, masonry, jointed rock, soil, sand, timber, mortar and stone. The FE-programming is characterized by an efficient and high-performance algorithm for processing single and multi-surface plasticity. A special feature of the material models is the easy combination of several flow conditions and failure modes along with hardening or softening criteria.

## ANSYS Release:

2024 R1

## Updates:

None Available

## Package Name:

MULTIPLAS\_5.7.0\_<platform>.<zip/tgz>

<platform> = WINX64 (for Windows x64)

<platform> = LINX64 (for Linux x64)

## Platform Availability and Package Format:

Windows x64 ... zip format

Linux x64 ... tgz format

## Applications Supported by this Package:

- ANSYS multiPlas

## Required License Manager:

DYNARDO License Manager

## Also Included in this Package:

N/A

## You may also want this Package:

- DYNARDO License Manager
- ANSYS optiSLang
- ANSYS Structures

---

# Chapter 29: Download Center Info - nCode

---

## nCode Package Overview

The Ansys software contained in this package provides the ability to predict the fatigue life of both components and complete products. It includes the Ansys nCode DesignLife products listed below.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

NCODE\_2024R1\_<platform>.<zip/tgz>

<platform> = WINX64 (for Windows x64)

<platform> = LINX64 (for Linux x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

Linux x64 ... tgz format

### Applications Supported by this Package:

- nCode
  - Ansys nCode DesignLife Pro
  - Ansys nCode DesignLife Premium
  - Ansys nCode DesignLife Enterprise
  - Ansys nCode DesignLife Parallel
- nCode legacy products still supported at this release
  - Ansys nCode DesignLife Standard

- Ansys nCode DesignLife Vibration
- Ansys nCode DesignLife Accelerated Testing
- Ansys nCode DesignLife Welds
- Ansys nCode DesignLife Thermo-Mechanical Module
- Ansys nCode DesignLife Composites

### **Required License Manager:**

Ansys License Manager

### **Also Included in this Package:**

N/A

### **You may also want this Package:**

N/A

---

# Chapter 30: Download Center Info - Nuhertz Filter Solutions

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## Nuhertz Filter Solutions Package Overview

This package contains the Ansys Nuhertz Filter Solutions product. Ansys Nuhertz FilterSolutions is a fast, easy to use, and high-powered solution for synthesizing, analyzing, and optimizing complex filter designs with a direct export to HFSS 3D Layout.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

- ANSYSFILTERSOLUTIONS\_2024\_R1\_<platform>.<zip>  
    <platform> = WINX64 (for Windows x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

- Ansys Nuhertz FilterSolutions

### Required License Manager:

None (License Manager included in product)

### Also Included in this Package:

- Nuhertz\_Library\_2021\_R2
- Nuhertz Flex Servers

## You may also want this Package:

- Electronics (HFSS)

---

# Chapter 31: Download Center Info - optiSLang

---

## optiSLang Package Overview

This package contains Ansys optiSLang. Conducting a sensitivity analysis, multidisciplinary optimization, robustness evaluation and reliability analysis with optiSLang enables you to:

- Quantify risks
- Identify optimization potential
- Improve product performance
- Secure resource-efficiency
- Save time to market

optiSLang automatically identifies the relevant input and output parameters and quantifies the forecast quality for an efficient optimization with minimal design point runs. This efficient approach means that even optimization tasks involving a large number of variables, scattering parameters as well as nonlinear system behavior can be solved.

optiSLang's Best-Practice-Management automatically selects the appropriate algorithms, such as gradient methods, genetic algorithms, evolutionary strategies or Adaptive Response Surface Methods. optiSLang empowers you to innovate and accelerate your virtual product development.

optiSLang supports interfacing with almost any software tool which is used in virtual product development. The interfaces are mainly used "inside optiSLang". Thus, in optiSLang context, they are called "tool integrations". The graphical user interface supports the workflow approach visually by single building blocks and algorithms which are graphically coupled in order to show dependencies and scheduling.

## Ansys Release:

2024 R1

## Updates:

## Updates:

None Available

## Package Name:

OPTISLANG\_2024\_R1\_<platform>.<zip/tgz>

<platform> = WINX64 (for Windows x64)

<platform> = LINX64 (for Linux x64)

## **Platform Availability and Package Format:**

Windows x64 ... zip format

Linux x64 ... tgz format

## **Applications Supported by this Package:**

- Ansys OptiSLang

## **Required License Manager:**

Ansys License Manager

## **Also Included in this Package:**

N/A

## **You may also want this Package:**

- Ansys License Manager
- Structures
- Fluids
- AIM
- Electronics



---

# Chapter 32: Download Center Info - Perceive EM

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## Perceive EM Package Overview

Perceive EM is a highly performant, PO-based shooting and bouncing ray (SBR) technology, deployed through a lightweight API. The fast simulation performance while producing large volumes of coherent response data vs. time/frequency/space is achieved through advanced algorithms with a highly parallelized implementation on Nvidia GPUs. This technology allows for electromagnetic (EM) simulation of large-scale radar, including automotive radar, and RF communications (e.g., 5G/6G) scenarios. Perceive EM's C++ API includes a Python API wrapper.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

PerceiveEM\_241\_<platform>.<zip/tgz>

<platform> = WINX64 (for Windows x64)

<platform> = LINX64 (for Linux x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

Linux x64 ... tgz format

### Applications Supported by this Package:

- Ansys Perceive EM

### Required License Manager:

Ansys License Manager

## **Also Included in this Package:**

N/A

## **You may also want this Package:**

Ansys License Manager

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# Chapter 33: Download Center Info - Photonics

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## Lumerical Package Overview

The Ansys Photonics software contained in this package enables the design of photonic components, circuits and systems.

## Ansys Release:

2024 R1

## Updates:

### 2024 R1.03

#### Update Package Name:

LUMERICAL\_2024R1.3\_<platform>.<zip>

#### Shared Enhancements

- Script editor scrollbar highlights: The Find and Replace search bar in the Script File Editor now generates highlights on the scrollbar to quickly identify the match locations.

#### Multiphysics Suite Enhancements

- Multi-GPU performance improvements: The performance scalability of distributed computing with increasing number of GPU cards in the same node has been significantly improved with respect to the first enablement of multi-GPU in 2024 R1.
- Improved dynamic import of KLayout Cell to Lumerical Multiphysics: The user experience has been improved with support for angled ports, ports located on bent waveguides and multiple injection layers, among other features. In addition, the flow is now much faster by leveraging KLayout's python API.
- Improved sidewall extrusion in Layer Builder: The sidewall angle option in Layer Builder can handle more complex geometries. When the sidewall angle cannot be applied reliably to the geometry the user now has the option to continue after a warning message.
- RCWA simulation and memory requirements report: The RCWA solver now has the option to check simulation and memory requirements before running the simulation.
- Axis scale options in FDTD and MODE Visualizer: For 2D image plots, users can now change the axis scaling to be "variable" (aspect ratio dependent on Visualizer window) or "equal" (1:1 aspect ratio).

- FDTD Solve container: An example Dockerfile for creating a minimal container image for the fdt-d-solver, both for CPU and GPU, is now included in the Lumerical installation package.

### **System Suite Enhancements**

- UX Enhancements for qINTERCONNECT: The usability of qINTERCONNECT has been improved by removing redundant and unused information from the initialization parameters, as well as adding descriptive error messages for a wide variety of error-inducing initialization states.
- CML Compiler QA test support for polarization-rotating devices: The sparsweep pcell model QA tests can now handle devices with polarization rotation in the output. A new template for this type of devices has also been added in the built-in lumfoundry library.

## **2024 R1.2**

### **Update Package Name:**

LUMERICAL\_2024R1.2\_<platform>.<zip>

### **Shared Enhancements**

- The Linux version of Lumerical tools can now auto-detect installed Open MPI and Intel MPI and enable the user to use them instead of the threaded executable included in the installer package. If both MPIs are installed in the system, then the tools will default to be first one found in \$PATH. Several legacy MPI executables were also removed from the installation package, resulting in a smaller file.

### **Multiphysics Suite Enhancements**

- RCWA solver now provides a log file for each simulation run. The data recorded is similar to that of the log files from other solvers, containing information such as software version, date and time, hostname, project file name, simulation completion time, peak memory usage, etc.
- The Lumerical Sub-Wavelength Model (LSWM) now supports diffraction grating on curved surfaces with the RCWA to Zemax OpticStudio dynamic link. This new feature will enable the design of diffraction gratings of curved glasses for AR/VR/MR applications.

### **System Suite Enhancements**

- The photodetector\_pcell photonic Verilog-A model in CML Compiler has been enhanced to support electrical load, frequency mixing, and shot noise.

## **2024 R1.1**

### **Update Package Name:**

LUMERICAL\_2024R1.1\_<platform>.<zip>

### **Shared Enhancements**

- 
- The new python command in Lumerical script language executes a python (.py) script file with the currently configured python interpreter. Executing this command is equivalent to using the “Run script” button in the Script File Editor UI for a python script.
  - When headless mode is enabled in Linux, the script prompt output (user printed text, as well as warnings and error messages) is now printed to the standard output.
  - At the end of the software installation process in Windows, a new checkbox in the dialog window allows users to uninstall previous major versions. A PowerShell window reports the progress of the uninstall process.

### **Multiphysics Suite Enhancements**

- Engines for all Multiphysics solvers now report the peak memory usage in their log files. In FDTD the peak memory usage is also reported as a 'simulation benchmark' result under the solver object.
- The meshing performance of FDTD has been significantly improved, particularly for running simulations in GPU.
- The Assembly Group in FDTD (introduced in 2024 R1) has been improved to mesh as fast as the equivalent structure group.
- The new Li factorization option in 2D RCWA improves the convergence for simulating 1D gratings with high contrast index materials (e.g., metals). This is the equivalent of the tangent vector field option for 2D gratings in 3D RCWA.[AA1]
- The EME index monitor in MODE has a new checkbox to use “implied bent coordinates” when simulating bent waveguides. Enabling this option, users can visualize the effective geometry that is simulated when bent waveguide properties are applied to cell groups.

### **Package Name:**

LUMERICAL\_2024R1\_<platform>.<zip>

<platform> = WINX64 (for Windows x64)

### **Platform Availability and Package Format:**

Windows x64 ... zip format

Linux x64 ...tgz format

### **Applications Supported by this Package:**

- Ansys Lumerical Enterprise
  - FDTD
  - MODE

- FEEM
- HEAT
- STACK
- CHARGE
- DGTD
- FEEM
- MQW
- INTERCONNECT
- Photonic Verilog-A
- CML Compiler
- HPCe
  - Ansys HPC
  - Ansys HPC Pack
- Ansys Lumerical FDTD
- Ansys Lumerical MODE
- Ansys Lumerical Multiphysics
- Ansys Lumerical INTERCONNECT
- Ansys Lumerical CML Compiler
- Ansys Lumerical Accelerator

### **Required License Manager:**

- Ansys License Manager for Ansys Lumerical Enterprise and HPC
- Lumerical FlexNet License Manager for Ansys Lumerical FDTD, Ansys Lumerical MODE, Ansys Lumerical Multiphysics, Ansys Lumerical INTERCONNECT, Ansys Lumerical CML Compiler and Ansys Lumerical Accelerator

### **Also Included in this Package:**

N/A

### **You may also want this Package:**

Ansys License Manager

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# Chapter 34: Download Center Info - PrepPost

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## Pre- and Post-processing Tools Package Overview

This package contains Pre- and Post-processing tools that can be used to efficiently prepare your model for simulation with our flagship solvers.

### Ansys Release:

2024 R1

### Prerequisites:

Microsoft .NET Framework 4.6.2 is required for the Windows version of this package. If your computer does not have .NET 4.6.2 installed, the package installation program installs .NET 4.6.2 as a prerequisite and may require a system restart after exiting the installation and before running any Ansys products.

### Updates:

None Available

### Package Name:

PREPOST\_2024R1\_<platform>.<zip/tgz>

<platform> = WINX64 (for Windows x64)

<platform> = LINX64 (for Linux x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

Linux x64 ... tgz format

### Applications Supported by this Package:

- Mechanics PrepPost
  - Ansys Mechanical Enterprise PrepPost
  - Ansys Autodyn PrepPost
  - Ansys Composite PrepPost

- Fluids PrepPost
  - Ansys CFD PrepPost
- Geometry Modeling
  - Ansys DesignModeler
  - Ansys SpaceClaim (Windows only)
  - Ansys SpaceClaim Catia V5 Interface (Windows only)
- Meshing
  - Ansys Meshing
  - Ansys Extended Meshing
  - Ansys ICEM CFD Hexa
  - Ansys ICEM CFD Tetra/Prism
- CAD/Geometry Interfaces
  - Geometry Interface for JT
  - Ansys Geometry Interface for Creo Parametric
  - Ansys Geometry Interface for Autodesk
  - Ansys Geometry Interface for Solid Edge
  - Ansys Geometry Interface for SolidWorks
  - Ansys Geometry Interface for Creo Elements/Direct Modeling
  - Ansys Geometry Interface for SAT
  - Ansys Geometry Interface for CATIA V5
  - Ansys Geometry Interface for CATIA V6
  - Ansys Geometry Interface for NX
  - Ansys Geometry Interface for Parasolid
- PDM Interfaces
  - Ansys Interface for TeamCenter
- HPC
  - Ansys HPC
  - Ansys HPC Pack



- 
- HPC Parametric
    - Ansys HPC Parametric Pack
  - EKM and CAE Interfaces
    - Ansys EKM Analyst
    - Ansys EKM Shared
    - Ansys CAE Interface for ABAQUS
    - Ansys CAE Interface for NASTRAN
    - Ansys CAE Interface for SAMCEF
  - Multiphysics Options
    - Ansys Customization Suite
    - Ansys DesignXplorer

## **Required License Manager:**

Ansys License Manager

## **Also Included in this Package:**

- Ansys License Manager
- Ansys Product Documentation
- RSM
- Ansys Workbench Platform
- Ansys Viewer (Windows Only)

## **You may also want this Package:**

- Ansys Release Documentation



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# Chapter 35: Download Center Info - Rocky

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## Rocky Package Overview

This package contains the Ansys Rocky product. Rocky gives you the ability to predict the motion of discontinuous bulk materials, including how discrete particles/elements interact with one another. It also predicts how bulk material interacts with surrounding fluid(s) and structure(s), allowing for optimization of full mechanical systems by coupling with Ansys Fluent, Ansys Mechanical, Ansys Motion, and Ansys OptiSLang.

For information on downloading and installing the Ansys Rocky Functional Modules package, see the [Ansys Rocky Functional Modules Package Overview \(p. 134\)](#) below.

For information on downloading and installing the Ansys Rocky SDK package, see the [Ansys Rocky SDK Package Overview \(p. 135\)](#) below.

## Ansys Release:

2024 R1

## Updates:

### 2024 R1.1

#### Update Package Name:

ROCKY\_2024R1.1\_<platform>.zip

- The combination of Liquid Bridge Adhesion model and Coarse-Grained DEM particles would lead to incorrect liquid mass transfer.
- Rocky would calculate negative wear volumes for post processing.
- The issue relating to excessive wear deformation introduced in 24R1 version.
- Rocky was blocking a simulation start because it was not taking into account CGM factor when calculating minimum DEM particles size for SPH-DEM Coupling.
- Replaced the deprecated API PrePost method "GetOutputFrequency" with "GetSimulationOutputFrequency" that was preventing the Calibration Suite script to run properly.

## Package Name:

ROCKY\_2024R1\_<platform>.zip

<platform> = WINX64 (for Windows x64)

<platform> = LINX64 (for Linux x64)

## Platform Availability and Package Format:

Windows x64... zip format

Linux x64... zip format

## Applications Supported by this Package:

- Ansys Rocky HPC

## Required License Manager:

Ansys License Manager

## Also Included in this Package:

N/A

## You may also want this Package:

N/A

## Ansys Rocky Functional Modules Package Overview

This package contains Rocky modules that are specialty models to expand the core solver capabilities. Using the API:Solver, you can develop custom modules for Rocky, using C++ programming language. These additional modules are ready to be used, with code available for you to edit it.

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Name:

ROCKY\_MODULES\_2024R1\_<platform>.<zip>

<platform> = WINX64 (for Windows x64)

<platform> = LINX64 (for Linux x64)

---

## Platform Availability and Package Format:

Windows x64... zip format

Linux x64... zip format

## Applications Supported by this Package:

- Ansys Rocky HPC

## Required License Manager:

Ansys License Manager

## Also Included in this Package:

N/A

## You may also want this Package:

N/A

## Ansys Rocky SDK Package Overview

This package is the software development kit that is required to build custom modules.

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Name:

ROCKY\_SDK\_2024R1\_<platform>.<zip>

<platform> = WINX64 (for Windows x64)

<platform> = LINX64 (for Linux x64)

## Platform Availability and Package Format:

Windows x64... zip format

Linux x64... zip format

## **Applications Supported by this Package:**

- Ansys Rocky HPC

## **Required License Manager:**

Ansys License Manager

## **Also Included in this Package:**

N/A

## **You may also want this Package:**

N/A

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# Chapter 36: Download Center Info - ROM Builder Preprocessing for Fluent

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## ROM Builder Package Overview

ROM Builder preprocessing for Fluent is an extension for the Ansys Fluent stand-alone version handling the data generation appropriate for both Static and Dynamic ROM Builder (Ansys Twin Builder). Additionally, the extension simplifies running multiple simulations by providing a Design of Experiments feature. Snapshots of field data can be generated for steady cases while both Snapshots and scalar data can be generated for transient cases. For more information regarding the file and folder structure generated by this application, refer to the documentation within Ansys Twin Builder.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

RBP\_FLUENT\_2024R1\_<platform>.<zip/tgz>

<platform> = WINX64 (for Windows x64)

<platform> = LINX64 (for Linux x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

Linux x64 ... tgz format

### Applications Supported by this Package:

- Ansys Twin Builder
  - Ansys Twin Builder Premium
  - Ansys Twin Builder Enterprise
  - Ansys Twin Builder Pro

- Ansys Fluent

### **Required License Manager:**

Ansys License Manager

### **Also Included in this Package:**

N/A

### **You may also want this Package:**

- Ansys License Manager



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# Chapter 37: Download Center Info - RSM

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## RSM Package Overview

The Ansys software contained in this package provides access to the Ansys Workbench-based Remote Solve Manager (RSM), a job queuing system that can be used to efficiently manage your analyses on Windows and Linux operating systems.

## Ansys Release:

2024 R1

## Prerequisites:

Microsoft .NET Framework 4.6.2 is required for the Windows version of this package. If your computer does not have .NET 4.6.2 installed, the package installation program installs .NET 4.6.2 as a prerequisite and may require a system restart after exiting the installation and before running any Ansys products.

## Updates:

None Available

## Package Name:

RSM\_2024R1\_<platform>.<zip/tgz>

<platform> = WINX64 (for Windows x64)

<platform> = LINX64 (for Linux x64)

## Platform Availability and Package Format:

Windows x64 ... zip format

Linux x64 ... tgz format

## Applications Supported by this Package:

N/A

## Required License Manager:

N/A

## **Also Included in this Package:**

- Ansys License Manager
- Ansys Product Documentation

## **You may also want this Package:**

- Ansys Release Documentation

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# Chapter 38: Download Center Info - Safety and Cybersecurity

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## medini analyze Package Overview

This package contains the Ansys medini analyze product. The Ansys medini analyze software implements key safety, reliability, and cybersecurity analysis methods based on the System Modeling Language (SysML) in an integrated tool.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

MEDINI\_ANALYZE\_2024R1\_<platform>.zip

<platform> = WINX64 (for Windows x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

- Ansys medini analyze
- Ansys medini analyze for Semiconductors
- Ansys medini analyze for Cybersecurity
- Ansys Digital Safety Manager (DSM)

### Required License Manager:

Ansys License Manager

## Also Included in this Package:

N/A

## You may also want this Package:

- Embedded Software (SCADE Architect)

---

# Chapter 39: Download Center Info - Embedded Software

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## SCADE Package Overview

This package contains the installers for all tools of the Ansys SCADE product family, which includes:

- **SCADE Suite®:** Enables you to design, verify and simulate time-driven, critical and real-time systems and to generate embeddable code.
- **SCADE Display®:** Enables you to specify complex graphic scenes for specification and prototyping activities.
- **SCADE Architect:** Enables you to capture system functional requirements in a model-based design environment and manage various system architecture projects.
- **SCADE Test:** Enables automated management and execution of requirements-based test cases on host, measurement of test coverage at model and code level, and automated generation of test harnesses for integration testing on target.
- **SCADE LifeCycle®:** Enables automatic documentation generation and requirements traceability with external Application Lifecycle Management (ALM) tools.
- **SCADE Solutions for ARINC 661-Compliant Systems:** Extends SCADE Suite and SCADE Display for the prototyping and design of ARINC 661-compliant Cockpit Display Systems (CDS) and User Applications (UA).
- **SCADE Automotive Package:** Extends and simplifies system design capabilities for the Automotive market (Prototyping and design of applications conform to the Automotive Open System Architecture (AUTOSAR) standard, fast function prototyping with MicroAutoBox I, Calibration and measurement with MCD-2 MC and Fixed-point representation implementation).
- **SCADE Avionics Package:** Extends and simplifies system design capabilities for the Aerospace and Defense (A&D) market (Description of the software and hardware architecture of a system, in alignment with the AADL™ standard, description of a complete avionics system architecture in alignment with standard avionics protocols and operating systems: ARINC 429, ARINC 664-P7 (AFDX), CAN, and ARINC 653 and design of control software for avionics systems in alignment with the Future Airborne Capability Environment (FACE™) Technical Standard).

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Name:

SCADE\_2024R1\_WINX64.zip

## Platform Availability and Package Format:

Windows x64 ... zip format

## Applications Supported by this Package:

- Ansys SCADE Suite Advanced Modeler Seat
- Ansys SCADE Suite Design Verifier
- Ansys SCADE Suite Gateway for Simulink®
- Ansys SCADE Suite KCG Code Generator - C and ADA
- Ansys SCADE Suite Timing and Stack Optimizer
- Ansys SCADE Suite Timing and Stack Verifier
- Ansys SCADE Display Advanced Modeler Seat
- Ansys SCADE Display KCG
- Ansys SCADE Test Environment for Host
- Ansys SCADE Test Model Coverage
- Ansys SCADE Test Target Execution
- Ansys SCADE Architect Advanced Modeler Seat
- Ansys SCADE Architect Configurator
- Ansys SCADE LifeCycle Reporter
- Ansys SCADE Display ARINC 661 Advanced Modeler
- Ansys SCADE Widgets Library for ARINC 661 Compliant Systems
- Ansys SCADE Widget for ARINC 661 - Price per Unit
- Ansys SCADE UA DF Generator for ARINC 661 Compliant Systems
- Ansys SCADE Server Creator for ARINC 661 Compliant Systems
- Ansys SCADE Host Server Creator for ARINC 661 Compliant Systems

- 
- Ansys SCADE Avionics Package
  - Ansys SCADE AADL Modeler Seat

### **Required License Manager:**

Ansys License Manager

### **Also Included in this Package:**

N/A

### **You may also want this Package:**

- Ansys SCADE Certification Data
- Ansys License Manager





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# Chapter 40: Download Center Info - SCADE Certification Data

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## SCADE Display KCG Certification Kits

This Certification Kit contains the items required for:

- Using and qualifying SCADE Display KCG as a development tool that satisfies objectives of DO-330 up to TQL-1, IEC 61508 up to SIL 3, IEC 60880, EN 50128 up to SIL 3/4, ISO 26262 up to ASIL D.
- Using and certifying OGLX as an embedded software library that satisfies objectives of DO-178C up to level A, IEC 61508 up to SIL 3, IEC 60880, EN 50128 up to SIL 3/4, ISO 26262 up to ASIL D.

For more information on the:

- Ansys SCADE Certification Data, see [Ansys SCADE Certification Data \(p. 150\)](#).
- Ansys SCADE Suite KCG Certification Kits, see [Ansys SCADE Suite KCG Certification Kits \(p. 148\)](#).
- Ansys SCADE UA DF Certification Kit, see [Ansys SCADE UA DF Generator Certification Kit \(p. 149\)](#).

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Name:

SDYKCG671\_CertificationKits\_RevB\_2023-02-10.zip

## Platform Availability and Package Format:

Windows x64 ... zip format

## Applications Supported by this Package:

- Ansys SCADE Display KCG Certification Kit – High Level Criticality
- Ansys SCADE Display KCG Certification Kit – Low Level Criticality

## Academic Products Supported by this Package:

N/A

## Required License Manager:

Ansys License Manager

## Also Included in this Package:

N/A

## You may also want this Package:

N/A

## Ansys SCADE Suite KCG Certification Kits

SCADE Suite KCG Certification Kits contain material demonstrating to certification authorities that the SCADE Suite KCG Code Generator was developed in compliance with the highest levels of Safety Standards (DO-178C/DO-330 at TQL-1, IEC 61508 up to SIL 3, IEC 60880, EN 50128 up to SIL 3/4, ISO 26262 up to ASIL D).

For more information on the:

- Ansys SCADE Display KCG Certification Kits, see [SCADE Display KCG Certification Kits \(p. 147\)](#).
- Ansys SCADE Certification Data, see [Ansys SCADE Certification Data \(p. 150\)](#).
- Ansys SCADE UA DF Certification Kit, see [Ansys SCADE UA DF Generator Certification Kit \(p. 149\)](#).

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Name:

SCKCG\_6.6.4\_CertificationKits\_RevA\_2023\_12.zip

SCKCG\_6.6.2\_CertificationKits\_2023\_02\_10.zip

## Platform Availability and Package Format:

Windows x64 ... zip format

---

## Applications Supported by this Package:

- Ansys SCADE Suite KCG Certification Kit – High Level Criticality
- Ansys SCADE Suite KCG Certification Kit – Low Level Criticality

## Academic Products Supported by this Package:

N/A

## Required License Manager:

Ansys License Manager

## Also Included in this Package:

N/A

## You may also want this Package:

N/A

## Ansys SCADE UA DF Generator Certification Kit

The SCADE UA DF Generator Certification Kit contains material demonstrating to certification authorities that SCADE UA DF Generator was developed in compliance with the highest levels of Safety Standards (DO-178C/DO-330 at TQL-1). This certification kit provides access to the documents that you need as part of your certification tasks, delivered in electronic format.

For more information on the:

- Ansys SCADE Display KCG Certification Kits, see [SCADE Display KCG Certification Kits \(p. 147\)](#).
- Ansys SCADE Suite KCG Certification Kits, see [Ansys SCADE Suite KCG Certification Kits \(p. 148\)](#).
- Ansys SCADE Certification Data, see [Ansys SCADE Certification Data \(p. 150\)](#).

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Name:

DFGEN\_68\_CertificationKit-2022-03.zip

## Platform Availability and Package Format:

Windows x64 ... zip format

## Applications Supported by this Package:

- Ansys SCADE Suite KCG Certification Kit – High Level Criticality
- Ansys SCADE Suite KCG Certification Kit – Low Level Criticality

## Academic Products Supported by this Package:

N/A

## Required License Manager:

Ansys License Manager

## Also Included in this Package:

N/A

## You may also want this Package:

N/A

## Ansys SCADE Certification Data

This package contains the certification data demonstrating that:

- SCADE Lifecycle Reporter for SCADE Suite, SCADE Lifecycle Reporter for SCADE Display, SCADE Lifecycle Reporter for SCADE Test, SCADE Lifecycle Reporter for SCADE ARINC 661 UADF, SCADE Test Environment for Suite, SCADE Test Environment for Display, Model Coverage for SCADE Display and SCADE Lifecycle Model Change for SCADE Suite each satisfy:
  - DO-330 for the qualification of a TQL-5 tool
  - IEC 61508 for the certification of a T2 tool
  - EN 50128 for the certification of a T2 tool
  - ISO 26262 for the certification of a TCL3 tool
- Model Coverage for SCADE Suite satisfies:
  - DO-330 for the qualification of a TQL-4 tool
  - IEC 61508 for the certification of a T2 tool
  - EN 50128 for the certification of a T2 tool

- 
- ISO 26262 for the certification of a TCL3 tool

For more information on the:

- Ansys SCADE Display KCG Certification Kits, see [SCADE Display KCG Certification Kits \(p. 147\)](#).
- Ansys SCADE Certification Data, see [Ansys SCADE Suite KCG Certification Kits \(p. 148\)](#).
- Ansys SCADE UA DF Certification Kit, see [Ansys SCADE UA DF Generator Certification Kit \(p. 149\)](#).

## **Ansys Release:**

2024 R1

## **Updates:**

None Available

## **Package Name:**

SCADE\_2024R1\_CertificationData-2023-12.zip

## **Platform Availability and Package Format:**

Windows x64 ... zip format

## **Applications Supported by this Package:**

- Ansys SCADE Lifecycle Reporter for SCADE Suite
- Ansys SCADE Lifecycle Reporter for SCADE Display
- Ansys SCADE Lifecycle Reporter for SCADE Test
- Ansys SCADE Test Environment for Suite
- Ansys SCADE Test Environment for Display
- Ansys Model Coverage for SCADE Suite
- Ansys Model Coverage for SCADE Display
- Ansys SCADE Lifecycle Model Change for SCADE Suite

## **Academic Products Supported by this Package:**

N/A

## **Required License Manager:**

Ansys License Manager

**Also Included in this Package:**

N/A

**You may also want this Package:**

N/A

---

# Chapter 41: Download Center Info - SCADE Compiler Verification Kit

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## SCADE Compiler Verification Kit

The Ansys SCADE Compiler Verification Kit includes the following module:

- **CVK 6.6.2:** This module enables the testing of all SCADE Suite functionality for a selected cross-development tool chain and a microprocessor.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

CVK662.zip

### Platform Availability and Package Format:

Windows x64 ... zip format

Linux x64 ... zip format

### Applications Supported by this Package:

- Ansys SCADE Compiler Verification Kit

### Academic Products Supported by this Package:

N/A

### Required License Manager:

Ansys License Manager

## **Also Included in this Package:**

N/A

## **You may also want this Package:**

N/A



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# Chapter 42: Download Center Info - SCADE Rapid Prototyper

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## SCADE Rapid Prototyper Package Overview

This package contains the SCADE Rapid Prototyper which is an extension of the SCADE Test development environment. The tool enables software and simulation engineers to build simulation control cockpits using components from a predefined widgets library. It includes connections with SCADE Suite®, Ansys® Twin Builder®, and all FMI compliant system simulation tools with powerful, easy-to-design, and standalone interactive graphical panels. [Appendix I - Rapid Prototyper Installation and Twin Builder Integration \(p. 156\)](#) describes how Rapid Prototyper can be installed and integrated into Twin Builder.

The SCADE Rapid Prototyper licenses are included in Ansys Twin Builder Enterprise, Pro and Premium. The package includes:

### Ansys Release:

2024 R1

### Package Name:

SCADERapidPrototyper\_2024R1\_<platform>.<zip>

<platform> = WINX64 (for Windows x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

- Twin Builder
  - Ansys Twin Builder Premium
  - Ansys Twin Builder Enterprise
  - Ansys Twin Builder Pro

### Required License Manager:

Ansys License Manager

## Also Included in this Package:

N/A

## You may also want this Package:

- Ansys License Manager

## Appendix I - Rapid Prototyper Installation and Twin Builder Integration

SCADE Rapid Prototyper can be integrated into Twin Builder through the following steps:

1. Unzip the contents of the *SCADERapidPrototyper\_2024R1\_WINX64.zip* at:

```
<ANSYSEM_DIR>\Win64\common\RapidPrototyper
```

---

### Note:

Installing the Rapid Prototyper outside of the Electronics Desktop installation directory is not supported.

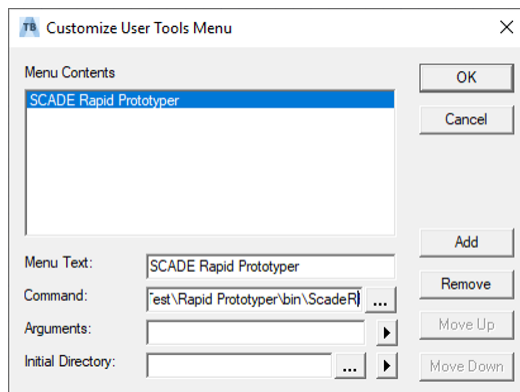
---

2. Start Twin Builder 2024 R1, and click **Tools > External Tools**.

3. Click **Add** and enter the following:

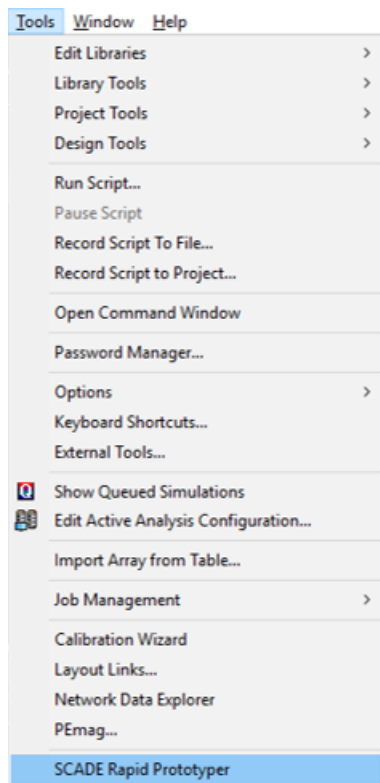
In the **Menu Text** field: *SCADE Rapid Prototyper*

In the **Command** field: *<ANSYSEM\_DIR>\Win64\common\RapidPrototyper\SCADE Test\Rapid Prototyper\bin\ScadeRP.exe*



4. Click **OK**.

A new **SCADE Rapid Prototyper** menu option is now available in the **Tools** menu.



5. Selecting on the **SCADE Rapid Prototyper** menu option, starts the SCADE Rapid Prototyper application.



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# Chapter 43: Download Center Info - SpaceClaim

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## SpaceClaim Package Overview

This package contains Ansys SpaceClaim Product, a 3D direct modeling application that allows users to easily create, edit, and prepare geometry for engineering simulation.

### Ansys Release:

2024 R1

### Prerequisites:

Microsoft .NET Framework 4.6.2 is required for the Windows version of this package. If your computer does not have .NET 4.6.2 installed, the package installation program installs .NET 4.6.2 as a prerequisite and may require a system restart after exiting the installation and before running any Ansys products.

### Updates:

None Available

### Package Name:

SPACECLAIM\_2024R1\_<platform>.<zip>

<platform> = WINX64 (for Windows x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

- Ansys SpaceClaim

### Required License Manager:

Ansys License Manager

### Also Included in this Package:

N/A

## You may also want this Package:

- Ansys License Manager

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# Chapter 44: Download Center Info - Optical

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For information on downloading and installing the Ansys Speos package, see the [Speos Package Overview \(p. 161\)](#) below.

For information on downloading and installing the Ansys Speos for NX package, see the [Ansys Speos for NX Package Overview \(p. 163\)](#) below.

For information on downloading and installing the Ansys Speos HPC package, see the [Ansys Speos HPC Package Overview \(p. 164\)](#) below.

For information on downloading and installing the Intel MPI 2018.4 Package (for Linux only), see the [Intel MPI 2018.4 Package Overview \(Linux Only\) \(p. 165\)](#) below.

For information on the Ansys Zemax OpticStudio Package, see the [Ansys Zemax OpticStudio Package Overview \(p. 166\)](#) below.

For information on the Ansys Zemax OpticBuilder for Creo Parametric package, see the [Ansys Zemax OpticsBuilder Package Overview \(p. 169\)](#) below.

## Speos Package Overview

The package contains Ansys Speos product. Ansys Speos is the leading optical simulation solution to design optical system, simulate light propagation and visualize your product as a virtual prototype.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

SPEOS\_2024R1.<zip>

<platform> = WINX64 (for Windows x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

## Applications Supported by this Package:

- Speos
  - Ansys Speos Enterprise
  - Ansys Speos Premium
  - Ansys Speos Pro
  - Ansys Speos Optical Part Design
  - Ansys Speos Optical Sensor Test
  - Ansys Speos HUD Design & Analysis
  - Ansys Speos Far Infrared Extension
- Geometry Modeling
  - Ansys SpaceClaim (Windows Only)
  - Ansys SpaceClaim Catia V5 Interface (Windows Only)
- CAD/Geometry Interfaces
  - Geometry Interface for JT
  - Ansys Geometry Interface for Creo Parametric
  - Ansys Geometry Interface for Autodesk
  - Ansys Geometry Interface for Solid Edge
  - Ansys Geometry Interface for SolidWorks
  - Ansys Geometry Interface for Creo Elements/Direct Modeling
  - Ansys Geometry Interface for SAT
  - Ansys Geometry Interface for CATIA V5
  - Ansys Geometry Interface for CATIA V6
  - Ansys Geometry Interface for NX
  - Ansys Geometry Interface for Parasolid
- Multiphysics Options
  - Ansys DesignXplorer

## Required License Manager:

Ansys License Manager



---

## Also Included in this Package:

- Ansys License Manager
- RSM
- Ansys Workbench Platform

## You may also want this Package:

- Ansys Release Documentation
- OPTIS HPC
- Optical Library
  - Material & Surface
  - Standard
  - Plugin

## Ansys Speos for NX Package Overview

This package contains Ansys Speos for NX add-on product. This add-on is integrated in Siemens NX. This package adds Speos capabilities in NX environment to design optical system, simulate light propagation and visualize your product as a virtual prototype.

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Name:

SPEOSNX\_2024R1\_WINX64.zip

## Platform Availability and Package Format:

Windows x64 ... zip format

## Commercial Products Supported by this Package:

- Speos for NX Pro
- Speos for NX Premium

- Speos for NX Enterprise
- Speos for NX Optical Part Design
- Speos for NX Optical Sensor Test
- Speos for NX HUD Design & Analysis
- Speos for NX Far Infrared Extension
- Speos for NX Optical Design Optimizer

## **Academic Products Supported by this Package:**

N/A

## **Required License Manager:**

Ansys License Manager

## **Also Included in this Package:**

- Ansys License Manager

## **You may also want this Package:**

- Ansys Release Documentation
- Speos HPC
- Speos Libraries

## **Ansys Speos HPC Package Overview**

The package contains Speos HPC product which allows you to deploy Speos simulations on large clusters for faster simulations. Speos HPC allows you to run a Speos simulation with high scalability on Windows and Linux operating systems.

## **Ansys Release:**

2024 R1

## **Updates:**

None Available

## **Package Name:**

SPEOSHPC\_2024R1\_<platform>.<zip/tgz>

---

<platform> = WINX64 (for Windows x64)

<platform> = LINX64 (for Windows x64)

## **Platform Availability and Package Format:**

Windows x64 ... zip format

Linux x64 ... tgz format

## **Applications Supported by this Package:**

- OPTIS HPC
  - Ansys Speos Solver
  - Ansys OPTIS HPC
  - Ansys OPTIS HPC Workgroup

## **Required License Manager:**

Ansys License Manager

## **Also Included in this Package:**

- Ansys License Manager
- RSM

## **You may also want this Package:**

N/A

## **Intel MPI 2018.4 Package Overview (Linux Only)**

This package includes intel MPI package 2018.4 which is required to run Speos HPC on linux. Refer to the Installation guide for further details.

## **Ansys Release:**

2024 R1

## **Updates:**

None Available

## Package Name:

I\_mpi\_2018.4.274.tgz

## Platform Availability and Package Format:

Linux x64 ... tgz format

## Commercial Products Supported by this Package:

N/A

## Academic Products Supported by this Package:

N/A

## Required License Manager:

N/A

## Also Included in this Package:

N/A

## You may also want this Package:

N/A

## Ansys Zemax OpticStudio Package Overview

With Ansys Zemax OpticStudio Pro you can analyze, design, and tolerance all classes of optical and optically enabled products, ranging from cameras for autonomous vehicles to optical couplers for data communications to microscopes and endoscopes for medical imaging, and much (much) more. Ansys Zemax OpticStudio Premium includes all the capability of OpticStudio Pro with added functionality to support integrated modeling of AR/VR systems and integrated modeling of real-world effects through dynamic links to CAD and access to measured source and scatter data. Ansys Zemax OpticStudio Enterprise includes all the capability of OpticStudio Premium plus the ability to assess and mitigate the impact of structural and thermal loads on product performance using the Structural, Thermal, Analysis and Results (STAR) feature set.

## Ansys Release:

2024 R1

## Updates:

**2024 R1.03**

---

### Update Package Name:

OPTICSTUDIO\_2024R1.03\_WINX64.zip

### Resolved Issues

- **Solves** - An issue was fixed where the list of solve types displayed in the Solve selection box in the editors could be incorrectly limited to only four options.
- **Material Catalog**- An issue was fixed where incorrect material data values could be calculated the first time that a material catalog was opened in a new version of OpticStudio.

## 2024 R1.2

### Update Package Name:

OPTICSTUDIO\_2024R1.02\_WINX64.zip

### Resolved Issues

- **Swept object** - Resolved problems with the Swept object inaccurately sweeping CAD objects, specifically addressing issues when creating Swept CAD objects with "Is Volume?" set to 0 or when the sweep angle was less than 360 degrees.
- **Tilted surface** - Fixed an issue where mirror substrates on Tilted surfaces were incorrectly rendered in layout plots.
- **STAR Multiphysics Data Viewer** - Improved numeric formatting of the colorbar in some STAR analysis windows.
- **Boolean objects** - Fixed some issues with CAD-based toroidal lens generation and an issue where a failed Boolean operation (as part of the Boolean CAD or Boolean Native objects) could cause OpticStudio to hang.
- **Boolean objects** - Fixed some cases where an extruded user-defined aperture object could not be used successfully as part of a Boolean object.
- **Boolean Native object** - Fixed an issue where Annular Volume geometry was incorrectly generated for CAD operations.
- **ZOS-API** - Fixed an issue where some STAR analysis windows could not be closed via the ZOS-API.
- **Binary 2A object parameters** - Changed behavior for Clear 1 and Clear 2 parameters in Binary 2A non-sequential objects so that 0 values for the parameters do not automatically track the current Radial Aperture value but instead are replaced by the current Radial Aperture value when updating the lens.
- **Binary 2A object** - Resolved problems with the Binary 2A non-sequential object, ensuring proper labeling of all phase coefficients in the Non-Sequential Component Editor, and accurate calculation of phase. Additionally, fixed instances where parameters were incorrectly transferred to the Binary 2A object during conversion from sequential mode.

- **Composite surfaces** - Improved accuracy of calculating the compound tilt angles for add-on composite surfaces, i.e. consequent rotations around both x and y axes.
- **Lens Data Editor** - Modified the behavior when inserting new surfaces into the Lens Data Editor such that the new surface radius is always infinity.
- **Gradient Index DLLs** - Fixed a few issues where in some cases of gradient index tracing with User-Defined Surfaces OpticStudio would crash.
- **GGD file selection** - Fixed an issue when using Grid\_Gradient.dll where the "File" drop-down is grayed out and therefore disabled changing the GGD file.
- **FFT MTF** - Fixed an issue where unchecking "Show Diffraction Limit" in the FFT MTF analysis settings would cause an incorrect polychromatic MTF when "Use Polarization" was checked.
- **Tolerancing Results** - Fixed an issue where sensitivity statistics were incorrectly reported for separate fields and configurations in the Summary tab of the Tolerancing Results when the Separate Fields/Configs option was selected and there were one or more TOFF operands in the tolerance data editor.

## Package Name:

OPTICSTUDIO\_2024R1\_WINX64.zip

<platform> = WINX64 (for Windows x64)

## Platform Availability and Package Format:

Windows x64 ... zip format

## Applications Supported by this Package:

- Zemax
  - Ansys Zemax OpticStudio Enterprise
  - Ansys Zemax OpticStudio Premium
  - Ansys Zemax OpticStudio Pro

## Required License Manager:

Ansys License Manager

## Also Included in this Package:

N/A

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## You may also want this Package:

N/A

## Ansys Zemax OpticsBuilder Package Overview

Ansys Zemax OpticsBuilder streamlines the optomechanical design process by providing direct conversion of optical designs from Ansys Zemax OpticStudio to CAD tools (such as Creo Parametric), by enabling integrated analysis of how packaging impacts optical performance, and by supporting direct export of optical drawings to manufacturing.

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Name:

OPTICSBUILDERCREO\_2024R1\_WINX64.zip

<platform> = WINX64 (for Windows x64)

## Platform Availability and Package Format:

Windows x64 ... zip format

## Applications Supported by this Package:

- Zemax
  - Ansys Zemax OpticsBuilder for Creo Parametric 4
  - Ansys Zemax OpticsBuilder for Creo Parametric 5
  - Ansys Zemax OpticsBuilder for Creo Parametric 6
  - Ansys Zemax OpticsBuilder for Creo Parametric 7
  - Ansys Zemax OpticsBuilder for Creo Parametric 8
  - Ansys Zemax OpticsBuilder for Creo Parametric 9

## Required License Manager:

Ansys License Manager

**Also Included in this Package:**

N/A

**You may also want this Package:**

N/A



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# Chapter 45: Download Center Info - SPM Extraction for Mechanical to Twin Builder

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## SPM Extraction for Mechanical to Twin Builder Package Overview

The SPM Extraction for Mechanical to Twin Builder package contains an extension that can be added to Ansys Workbench and used in Ansys Mechanical in a modal analysis context. It allows you to expose graphically the intrusive method used in Ansys Mechanical to create a scalar Reduced Model (state space matrices), in different formats. The downstream file created may be used in a system analysis, especially in Twin builder

Licenses for Ansys Twin Builder and Ansys Mechanical must be purchased separately.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

SPM\_ROM\_2024R1\_<platform>.zip

<platform> = WINX64 (for Windows x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

- Ansys Workbench
- Ansys Twin Builder
  - Ansys Twin Builder Premium
  - Ansys Twin Builder Enterprise
  - Ansys Twin Builder Pro

## **Required License Manager:**

Ansys License Manager

## **Also Included in this Package:**

N/A

## **You may also want this Package:**

- Ansys License Manager

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# Chapter 46: Download Center Info - Optical Libraries

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## Speos Optical Libraries Package Overview

The package contains Libraries for Speos products. It includes Surface and Volume Optical Properties to model various materials, Source models for the Speos, Speos for NX and Speos for Creo Parametric, regulation standards and Plugins for HUD Optical Analysis.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

ANSYS\_OPTICAL\_LIBRARIES\_2024R1\_WINX64.zip

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

N/A

### Required License Manager:

N/A

### Also Included in this Package:

N/A

### You may also want this Package:

N/A



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# Chapter 47: Download Center Info - Static ROM Preprocessing for AEDT Maxwell and Icepak

---

## Static ROM Preprocessing Package Overview

The Static ROM Preprocessing package contains an extension that can be added to Ansys AEDT so that Ansys AEDT Maxwell and Icepak results can be exported as learning snapshots in the dedicated format for Static ROM builder based on design points that describe input Parameters.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

AEDT\_SRB\_DRB\_2024R1\_<PLATFORM>.zip

<platform> = WINX64 (for Windows x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

- Ansys Workbench

### Required License Manager:

Ansys License Manager

### Also Included in this Package:

N/A

## You may also want this Package:

- Ansys License Manager

---

# Chapter 48: Download Center Info - Static ROM Preprocessing for Mechanical

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## Static ROM Preprocessing Package Overview

The Static ROM Preprocessing package contains an extension that can be added to Ansys Workbench so that Mechanical Static Thermal or Structural results can be exported as learning snapshots in the dedicated format for Dynamic Rom Builder based on designed points that describe input parameters. Results of ROM evaluations or input snapshots can also be displayed with this extension.

Licenses for Ansys Twin Builder and Ansys Mechanical must be purchased separately.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

SRB\_MECHANICAL\_2024R1\_<platform>.zip

<platform> = WINX64 (for Windows x64)

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

- Ansys Workbench

### Required License Manager:

Ansys License Manager

### Also Included in this Package:

N/A

## You may also want this Package:

- Ansys License Manager



---

# Chapter 49: Download Center Info - Statistics on Structures

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## Statistics on Structures Package Overview

This package contains Ansys Statistics on Structures which is an add-on to Ansys optiSlang. It extends optiSlang meta-modelling framework MOP and optiSlang post processing to multi-dimensional analysis with:

- Data-based 3D ROM building
- Creation of SignalMOP (Data-based 1D ROM)
- Sensitivity analysis of 2D performance maps
- Statistical and nonlinear sensitivity analysis of FEM/3D simulation results
- Statistical analysis of geometric measurements in 3D
- Generation of imperfections in automated workflows as input to CAE solvers (LS-DYNA, Ansys Mechanical)

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Name:

SoS\_8.0.0\_<platform>.<zip/tgz>

<platform> = WINX64 (for Windows x64)

<platform> = LINX64 (for Linux x64)

## Platform Availability and Package Format:

Windows x64 ... zip format

Linux x64 ... tgz format

## **Applications Supported by this Package:**

- Ansys SoS

## **Required License Manager:**

DYNARDO License Manager

## **Also Included in this Package:**

N/A

## **You may also want this Package:**

- DYNARDO License Manager
- Ansys optiSLang
- Ansys Structures
- Ansys Fluids
- Ansys Electronics

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# Chapter 50: Download Center Info - Structures

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## Structures Package Overview

The Ansys Structures software contained in this package provides the ability to simulate complex structural engineering problems with ease.

The Ansys Structures package now includes access to Ansys Motion, Ansys Sherlock, Ansys Additive Suite, Ansys Additive Print and Ansys Additive Science.

Ansys Additive Print provides you with the ability to perform simulations of additive manufacturing print processes. Ansys Additive Science provides an exploratory environment for scientists and engineers to determine the optimum process parameters for metal additive manufacturing machines and materials. In addition to Ansys Additive Print and Ansys Additive Science, Ansys Additive Suite includes Ansys Workbench Additive and Ansys Additive Prep.

- To install the Ansys Additive Suite, select and install both Mechanical Products and Additive options from the Ansys product selection screen.

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### Note:

You must have the appropriate Ansys licenses to run the Ansys Additive products.

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Ansys Motion, a 3rd generation engineering solution based on an advanced multibody dynamics solver. It enables fast and accurate analysis of rigid and flexible bodies and gives accurate evaluation of physical events through the analysis of the mechanical system as a whole.

Ansys Motion uses four tightly integrated solving schemes: rigid body, flexible body, modal and meshfree EasyFlex. This gives users unparalleled capabilities to analyze systems and mechanisms in which ever combination they want. Large assemblies with many millions of degrees of freedom can be studied with the effects of flexibility and contact included. Standard connections and joints then allow these systems to be connected together and loaded.

## Ansys Release:

2024 R1

## Prerequisites:

Microsoft .NET Framework 4.6.2 is required for the Windows version of this package. If your computer does not have .NET 4.6.2 installed, the package installation program installs .NET 4.6.2 as a prerequisite and may require a system restart after exiting the installation and before running any Ansys products.

## Updates:

None Available

## Package Name:

STRUCTURES\_2024R1\_<platform>.<zip/tgz>

<platform> = WINX64 (for Windows x64)

<platform> = LINX64 (for Linux x64)

## Platform Availability and Package Format:

Windows x64 ... zip format

Linux x64 ... tgz format

## Applications Supported by this Package:

- Mechanics PrepPost/Solver Bundles
  - Ansys Mechanical Enterprise
  - Ansys Mechanical Pro
  - Ansys Mechanical Premium
  - Ansys Structural
  - Ansys Professional NLS
  - Ansys Professional NLT
  - Ansys DesignSpace
  - Ansys Autodyn
  - Ansys Explicit STR
  - Ansys Rigid Body Dynamics
  - Ansys Additive Suite
- Mechanics Solvers
  - Ansys Mechanical Enterprise Solver
  - Ansys Structural Solver
- Mechanics PrepPost
  - Ansys Mechanical Enterprise PrepPost

- 
- Ansys Autodyn PrepPost
  - Ansys Composite PrepPost
  - Mechanics Modules
    - Ansys Fatigue Module
  - LS-DYNA
    - Ansys LS-DYNA
    - Ansys LS-DYNA HPC
  - AQWA
    - Ansys Aqwa Suite
    - Ansys Aqwa Suite with Coupled Cable Dynamics
  - Geometry Modeling
    - Ansys DesignModeler
    - Ansys SpaceClaim (Windows Only)
    - Ansys SpaceClaim Catia V5 Interface (Windows Only)
    - Ansys Discovery (Windows Only)
  - Meshing
    - Ansys Meshing
    - Ansys Extended Meshing
  - CAD/Geometry Interfaces
    - Geometry Interface for JT
    - Ansys Geometry Interface for Creo Parametric
    - Ansys Geometry Interface for Autodesk
    - Ansys Geometry Interface for Solid Edge
    - Ansys Geometry Interface for SolidWorks
    - Ansys Geometry Interface for Creo Elements/Direct Modeling
    - Ansys Geometry Interface for SAT
    - Ansys Geometry Interface for CATIA V5
    - Ansys Geometry Interface for CATIA V6

- Ansys Geometry Interface for NX
- Ansys Geometry Interface for Parasolid
- PDM Interfaces
  - Ansys Interface for TeamCenter
- HPC
  - Ansys HPC
  - Ansys HPC Pack
- HPC Parametric
  - Ansys HPC Parametric Pack
- EKM and CAE Interfaces
  - Ansys EKM Analyst
  - Ansys EKM Shared
  - Ansys CAE Interface for ABAQUS
  - Ansys CAE Interface for NASTRAN
  - Ansys CAE Interface for SAMCEF
- Multiphysics PrepPost/Solver Bundles
  - Ansys Mechanical CFD Maxwell 3D

**Important Note:** Download Structures, Fluids, and Electronics packages or ISO and Electronics packages

- Ansys Mechanical Emag with Maxwell 3D

**Important Note:** Download Structures, and Electronics packages or ISO and Electronics packages

- Ansys Mechanical CFD

**Important Note:** Download Structures and Fluids packages or ISO packages

- Multiphysics Options
  - Ansys Customization Suite
  - Ansys DesignXplorer
- Ansys Additive
  - Ansys Additive Prep
- Ansys SpaceClaim

- 
- Ansys Sherlock

## **Required License Manager:**

Ansys License Manager

## **Also Included in this Package:**

- Ansys License Manager
- Ansys Product Documentation
- RSM
- Ansys Workbench Platform
- Ansys Viewer (Windows Only)

## **You may also want this Package:**

- Ansys Release Documentation
- Ansys Additive





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# Chapter 51: Download Center Info - Twin Builder Linux Redistributable

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## Twin Builder Linux Redistributable Package Overview

The Twin Builder Linux Redistributable Package contains the dependencies and scripts for running **simulations with the Twin Builder Standalone solver**. [Appendix I - Twin Builder Standalone Solver: Running Simulations \(p. 188\)](#) describes how to execute the standalone Twin Builder solver using a test .smt file exported from Twin Builder 2024 R1. [Appendix II – Using Linux Redistributable for CS FMU Creation in Twin Builder \(p. 189\)](#) contains information on how this redistributable package can be used in Twin Builder to generate CS FMUs with embedded Twin Builder solver and models.

The execution of Standalone Twin Builder Solver requires that an Ansys License Server is reachable by the local machine, and it must provide the *simplorer\_sim* license string.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

TWINBUILDERLINUXREDISTRIBUTABLES\_2024\_R1\_LINX64.tgz

### Platform Availability and Package Format:

Linux x64 ... tgz format

### Applications Supported by this Package:

- ANSYS Twin Builder Enterprise

### Required License Manager:

Ansys License Manager

### Also Included in this Package:

N/A

## You may also want this Package:

- Ansys License Manager

## Appendix I - Twin Builder Standalone Solver: Running Simulations

The Twin Builder Standalone Solver can only run on a Linux platform that can support a desktop environment as it depends on X Window System. Environments like Windows Subsystem for Linux (WSL) are not supported.

Before running simulations with the *tbsolver* program, execute the following steps:

1. Unzip the redistributables.

```
tar -xzf AnsysEM.tgz
```

2. Set the license information to the following environment variable:

```
ANSYSLMD_LICENSE_FILE=1055@SERVER_NAME
```

3. Export the TBSOLVER\_HOME environment variable, which should point to the *<redistributable\_dir>/AnsysEM/Linux64/* directory. This variable is used when simulating CS FMUs exported from ANSYS Twin Builder in any FMI-compliant tool.
4. You may add both ANSYSLMD\_LICENSE\_FILE and TBSOLVER\_HOME variables to your *~/.bashrc* file so that they are automatically set every time a new shell session is started.

The Twin Builder Standalone Solver runs *.smt* files exported from Twin Builder. The solver executable is located under the *Linux64* directory of the Twin Builder Linux Redistributable package. Executing a simulation with the standalone solver requires the following command line:

```
./tbsolver -smt-file /ansys/standalone_solver_demo/current_source.smt -o output.h5 -a TR
```

Follow the steps below to prepare an SMT file:

1. Open the desired Ansys Electronics Desktop project.
2. Analyze a selected design.
3. Save the project.
4. Go to the *<ProjectDir>\<ProjectName>.aedtresults>\<DesignName>* folder.
5. The recently modified file with an extension *\*.smt* is the SMT file to be selected.

---

### Note:

SMT file name will have a prefix *<AnalysisType>\_<AnalysisName>\_* followed by some random unique characters corresponding to a particular simulation run. For example, a transient analysis with an analysis name, *my\_TR*, will have a prefix *TR\_my\_TR\_*.

---

The simulation results are written in HDF5 format. This package does not provide software to read information from HDF5 files. However, solutions such as [HDFView](#) are capable of opening and displaying contents of .h5 files. The CLI options for TBSolver can be seen below:

```
[root@cdcsyssolver02 Linux64]# ./tbsolver -h
-h
unrecognised option '-h'
Twin Builder Solver Options:
--help                Produce help message
-v [ --version ]      Print version
-a [ --analysis-type ] arg Analysis type
-o [ --out ] arg       Output (results) file
-e [ --log-file ] arg  Log file
-l [ --log-level ] arg Log level (0-INFO, 1-WARNING, 2-ERROR)
--disable-result      Disable producing any results
--disable-log          Disable producing any logs
--cs-port arg         Co-simulation port
--smt-file arg        SMT file
```

When running simulations using Twin Builder exported CS FMUs in any FMI-compliant tool (e.g., FMUChecker), *tbsolver* is used as simulation engine.

TR, AC and DC analysis are supported. Internal Twin Builder models can be used in the simulations, including:

- **FMU (Modelica/ROM):** FMUs need to be stored on the Linux machine and their location need to be specified in the **TB\_USER\_LIB** environment variable. See example below of an error message generated when the environment variable is not set.

```
@docker-desktop/mnt/f/SolverActivities/v212_Activities/CustomerPortal/TWINBUILDERLINUXREDISTRIBUTABLES_2021_R2_LINUX64/standalone_solver_...
[root@docker-desktop standalone_solver_demo]# ls
VanDerPol.fmu current_source.sml current_source.smt night_adv.smt vanderpol_fmu.h5 vanderpol_fmu.smt
[root@docker-desktop standalone_solver_demo]# /ansys/AnsysEM/AnsysEM21.2/Linux64/tbsolver --smt-file vanderpol_fmu.smt
Starting simulation ... (Jun 09, 2021 10:45:23 PM)
[Sim2000]
Error - Unable to find archived model file for VanDerPol1 in standard libraries
>> Prepare (Jun 09, 2021 10:45:23 PM)
[Sim2000App]
Error 10532 - Error encountered while PREPARE.
>> Close (Jun 09, 2021 10:45:23 PM)
Error: Simulation error occurred (Jun 09, 2021 10:45:23 PM)
[root@docker-desktop standalone_solver_demo]# TB_USER_LIB=$PWD /ansys/AnsysEM/AnsysEM21.2/Linux64/tbsolver --smt-file vanderpol_fmu.smt
Starting simulation ... (Jun 09, 2021 10:46:04 PM)
Simulation completed successfully! (Jun 09, 2021 10:46:04 PM)
[root@docker-desktop standalone_solver_demo]#
```

- All the components in **Simplorer Elements** except VHDL models. VHDL and Links are currently not supported.

## Appendix II – Using Linux Redistributable for CS FMU Creation in Twin Builder

Users can create all-inclusive CS FMUs for Linux (FMUs with embedded Twin Builder Linux model, solver, and system libraries) that can be used on any FMI-compliant software on Linux (CentOS 7.9).

Before creating the CS FMU, users need to extract the contents of this package on the same machine where Twin Builder 2021 R2 is installed. Then, the following steps are required:

1. In Windows, open the source .aedt project in Twin Builder.
2. On a subsheet place the circuit/subcircuit that you wish to export as CS FMU.
3. On the top-level schematic, right-click on the subsheet component on the schematic area.
4. On the **Compile FMU Model** dialog, the following options are provided:
  - a. **Include Personal + UserLib Files**
    - i. **Complete:** Includes all models (even unused ones) from UserLib and Personal libs. If UserLib and PersonalLib are not in the standard Twin Builder library locations, you specify their location through a configuration file.
    - ii. **Auto-detect:** Automatically detects the models used in the schematic components and adds them to the generated FMU. Please, note that if a model has multiple nested dependencies, they might not be automatically detected.
  - b. **Configuration File:** File used to specify where models from UserLib and PersonalLib can be found. The has the following content:

[Windows]

UseAltLibDirs=No

AltUserLibDir=

AltPersLibDir=

You may have a Global Config file (located at *Documents/Ansoft/ElectronicsDesktop2024.1/config/Toolcoupling.cfg*) used by all your projects, or you may specify a new one when compiling the CS FMU.
  - c. **Include Linux Files:** Select *Yes* if you wish to create a CS FMU with both Windows and Linux binaries.
  - d. **Linux Solver Folder:** Absolute path to the v231/ directory of this Linux Redistributable package.
  - e. **Linux UserLib Folder/Linux PersonalLib Folder:** Directory where the Linux-compatible models (.so files) can be found to be included in the CS FMU.
5. After selecting the desired options, you may click the **Compile** button to generate the FMU model.
6. After a successful compilation, the model is ready to exported as an FMU and used in any FMI-compliant tool without external Twin Builder dependencies.

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# Chapter 52: Download Center Info - Twin Builder Model Export for Fluent

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## Twin Builder Model Export Package Overview

The Ansys Twin Builder Model Export for Fluent contains an extension that can be added to Ansys Fluent so that Fluent Component models exported from Ansys Twin Builder can be used in system simulations of boundary conditions for Fluent 3D double-precision projects. [Appendix I - Fluent Component Creation \(p. 192\)](#) describes how users can create and export a Fluent Component from Ansys Twin Builder. [Appendix II - Fluent Extension Installation \(p. 193\)](#) contains information about how to install and load the extension in Fluent. [Appendix III - Fluent Component Usage \(p. 193\)](#) shows how a model can be used for boundary condition simulation in a Fluent project.

Licenses for Ansys Twin Builder and Ansys Fluent must be purchased separately.

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

TwinBuilderModelExportForFluent\_2024R1\_WINX64.zip

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

- Twin Builder
  - Ansys Twin Builder Enterprise
- Ansys Fluent

### Required License Manager:

Ansys License Manager

## Also Included in this Package:

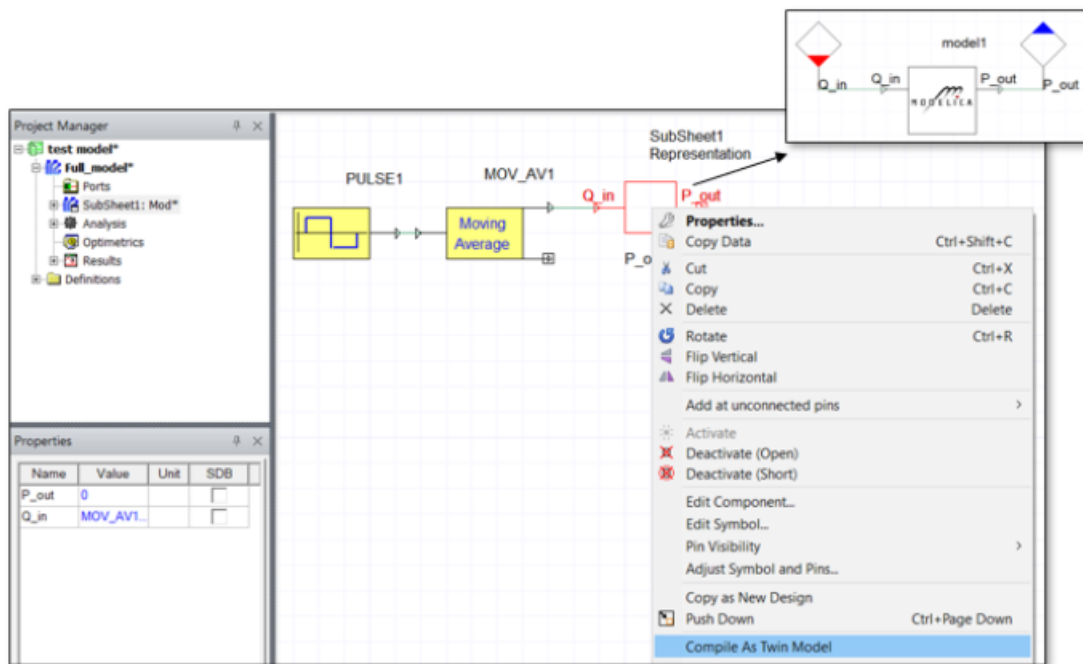
N/A

## You may also want this Package:

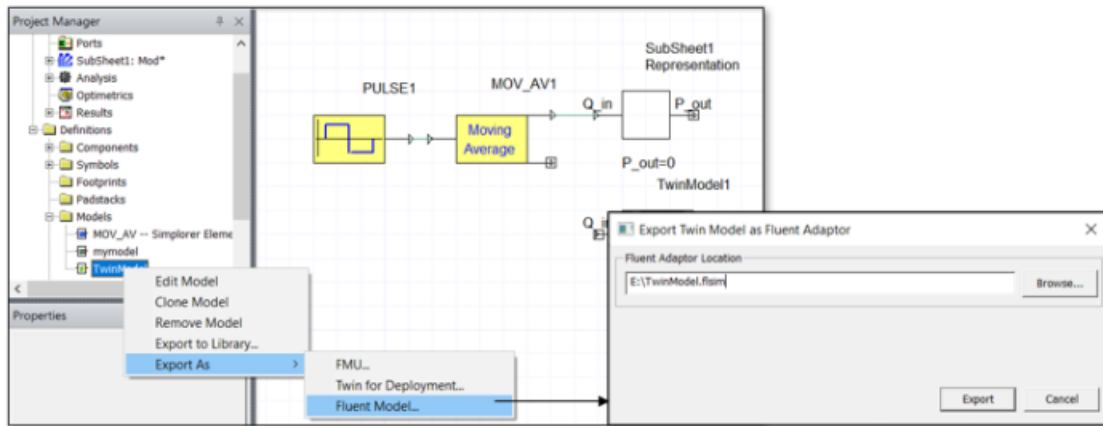
- Ansys License Manager

## Appendix I - Fluent Component Creation

Twin Builder Fluent Components are exported from Twin Models created in Ansys Twin Builder 2020 R2. The image below illustrates the creation of a Twin Model from a single source FMU present in a subsheet.



Once the Twin Model is created, it can be exported as a Fluent Component by right-clicking on the corresponding model name in the Definitions -> Models item in the Project Manager, as illustrated below. A file with the .flsimextension will be created on disk.



## Appendix II - Fluent Extension Installation

The Fluent extension can be installed and enabled through the following steps:

1. Copy the contents of the fluent-extensions folder into the home directory of your Fluent installation.
2. If you don't have a .fluent file in your Fluent home directory, copy/paste the the one provided in this package. Otherwise, add the following line to your existing .fluent file:

```
(fast-load (open-input-file (string-append (getenv "HOME") "/fluent-extensions/fluent-extensions.bin")) (the-environment))
```

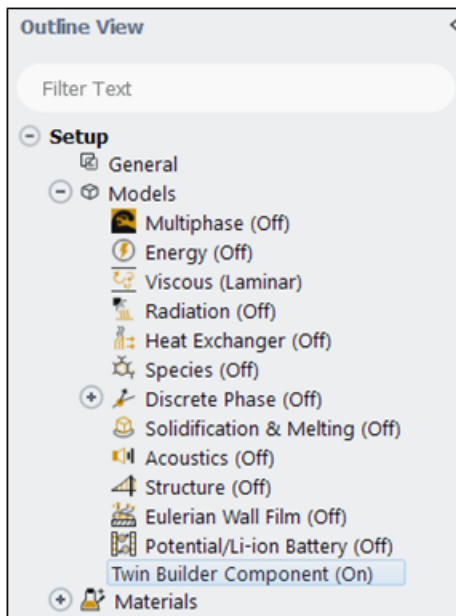
3. Start Fluent and type the following command in the console: (extension-load "TBExtension"). The following should be seen when the extension is successfully loaded:

```
Loaded library "TBExtension".
#f
> |
```

It is advised to load the extension right after start-up, before loading a case file.

## Appendix III - Fluent Component Usage

The extension becomes available in the Fluent graphical interface (GUI) after loading. There are 4 main stages for setting up and running the system-level boundary condition simulation:



### 1. Loading the .flsim model:

- a. Open the extension window
- b. Load a .flsim model
- c. Enable Coupling: When coupling is enabled, Fluent and the FLSim model exchange data at the end of every time-step. Coupling is enabled automatically after loading an FLSim model.

The browse and select buttons can also be used to re-load the FLSim model if a reset of the model is required.

2. a. Output parameters can be linked to inputs of the FLSim component.
- b. Outputs are always linked to report definitions in fluent.
- c. Both Report Definitions and Outputs can be created or deleted from the “Fluent Output Definition” tab. (They can also be created manually through the standard Fluent Interface.)
- d. The “<< Map” button maps a selected report definition to a selected Fluent Output.
- e. The “<< Create” button creates a new output parameter for a selected report definition.
- f. Inputs can be created from the “FLSim Outputs” tab (or from the standard interface). This requires knowledge about the required quantity. (Velocity, pressure, etc)

Refer to the Fluent user’s guide regarding input parameters and report definitions setup for more information.

3. a. FLSim Outputs: Displays the outputs coming from the FLSim component. These outputs need to be mapped to Fluent Inputs.
- b. FLSim Inputs: Displays the inputs for the FLSim component. These inputs need to be mapped to Fluent Outputs.



---

#### 4. Loading and Simulating

- a. Fluent simulation can be started normally from “Run Calculation” in the Fluent Interface.
- b. As long as the “enable coupling” check box is checked the FLSim component is coupled to fluent. Unchecking will halt the updating of the fluent in/output parameters.



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# Chapter 53: Download Center Info - Twin Builder Modelica Libraries

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## Twin Builder Modelica Libraries Package Overview

### Windows:

The Twin Builder Modelica Libraries are compatible with Ansys Twin Builder and contains the following Modelon libraries and corresponding documentation: Electrification, Hydraulics, Pneumatics, Liquid Cooling, Heat Exchanger, Vapor Cycle and Modelon base library. After downloading the package, extract its contents into a folder on your computer and follow the instructions from the PDF file.

The Twin Builder product, Twin Builder Fluid Power Library, Twin Builder Heating and Cooling Library and and Twin Builder EV Powertrain Library licenses need to be purchased separately from Ansys

### Linux:

The Twin Builder Modelica Libraries is compatible with Ansys Twin Builder and contains the following Modelon libraries and corresponding documentation: Electrification, Hydraulics, Pneumatics, Liquid Cooling, Heat Exchanger, Vapor Cycle and Modelon base library.

After downloading and extracting the contents of this package, set the location of the libraries to the MODELICAPATH environment variable. For example, if your libraries are saved under /home/someuser/libraries/ModelicaLibs, this directory should be added to the MODELICAPATH. Refer to the documentation from the Ansys Twin Builder Linux Redistributable package for instructions on how to compile models on Linux.

The Twin Builder Fluid Power Library, Twin Builder Heating and Cooling Library and and Twin Builder EV Powertrain Library licenses need to be purchased separately from Ansys

### Ansys Release:

2024 R1

### Updates:

None Available

### Package Name:

TwinBuilderModelicaLibraries\_2024R1\_<platform>.<zip/tgz>

<platform> = WINX64 (for Windows x64)

<platform> = LINX64 (for Linux x64)

## **Platform Availability and Package Format:**

Windows x64 ... zip format

Linux x64 ...tgz format

## **Applications Supported by this Package:**

- Twin Buider
  - Ansys Twin Builder Premium
  - Ansys Twin Builder Enterprise
  - Ansys Twin Builder Pro

## **Required License Manager:**

Ansys License Manager

## **Also Included in this Package:**

N/A

## **You may also want this Package:**

- Ansys License Manager
- Ansys Twin Builder Linux Redistributable (Linux only)

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# Chapter 54: Download Center Info - Twin Deployer

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## Twin Deployer Package Overview

This package contains Ansys Twin Deployer. Ansys Twin Deployer is a product for simulation and validation of Deployable Twin Models exported from Twin Builder 2024 R1, offering the following main features:

- Automatic Twin model cross-platform compilation (Linux-only): Deployable Twin Models exported from Twin Builder 2024 R1 will have their Linux binaries automatically generated when loaded into Twin Deployer
  - If the Deployable Twin Model contains Modelica models, they will also be automatically compiled for Linux.
  - If Modelica models require libraries other than MSL (Modelica Standard Library), their parent directory must be added to the MODELICAPATH environment variable, or else informed in the model compilation dialog .
- Load inputs/reference CSV data: Users can load simulation inputs and reference results from CSV files.
- Python Code: Users can write their own Python (3.9) code and use it side-by-side with Twin Models.
- Result visualization: Individual outputs can be enabled/disabled in the 2D plots. Zooming, panning, stacked plots, among other functionalities are available.
- Export Python App: Users can export a standalone Python App directly from Twin Deployer, using the Twin model, input and output data generated in the latest simulation. The Python App serves as a simple example about how the Twin simulations can be integrated into existing automated workflows, or simply executed from command-line.
- Export DTDL: DTDL (Digital Twins Definition Language) representation of a Twin model can be exported from Twin Deployer with only a few clicks.

License for Ansys Twin Deployer must be purchased separately to enable the ability to launch Twin Deployer. Usage guidelines are included in the downloaded package.

## Ansys Release:

2024 R1

## Updates:

None Available

## Package Name:

TWINDEPLOYER\_2024R1\_<platform>.<zip/tgz>

<platform> = WINX64 (for Windows x64)

<platform> = LINX64 (for Linux x64)

## Platform Availability and Package Format:

Windows x64 ... zip format

Linux x64 ... tgz format

## Applications Supported by this Package:

N/A

## Required License Manager:

Ansys License Manager

## Also Included in this Package:

N/A

## You may also want this Package:

- Ansys License Manager
- Ansys Twin Builder

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# Chapter 55: Download Center Info - Verification Manual Files - Additive Manufacturing

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## Workbench Verification Manual Archive Files - Additive Package Overview

This package contains Workbench Verification Manual Archive Files for Additive Manufacturing.

### ANSYS Release:

2024 R1

### Updates:

None Available

### Package Name:

ANSYS\_2024R1\_ADDITIVEVM.zip

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

N/A

### Required License Manager:

N/A

### Also Included in this Package:

N/A

### You may also want this Package:

- ANSYS Structures
- ANSYS Product Documentation





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# Chapter 56: Download Center Info - Verification Manual Files - Design

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## Workbench Verification Manual Archive Files - Design Package Overview

This package contains Workbench Verification Manual Archive Files for Discovery.

### ANSYS Release:

2024 R1

### Updates:

None Available

### Package Name:

VM2024R1-Design.zip

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

N/A

### Required License Manager:

N/A

### Also Included in this Package:

N/A

### You may also want this Package:

- ANSYS Product Documentation



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# Chapter 57: Download Center Info - Verification Manual Files - CFX

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## Workbench Verification Manual Archive Files - CFX Package Overview

This package contains Workbench Verification Manual Archive Files for CFX.

### ANSYS Release:

2024 R1

### Updates:

None Available

### Package Name:

ANSYS\_2024R1\_CFXVM.zip

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

N/A

### Required License Manager:

N/A

### Also Included in this Package:

N/A

### You may also want this Package:

- ANSYS Product Documentation



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# Chapter 58: Download Center Info - Verification Manual Files - Forte

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## Workbench Verification Manual Archive Files - Forte Package Overview

This package contains Workbench Verification Manual Archive Files for Forte.

### ANSYS Release:

2024 R1

### Updates:

None Available

### Package Name:

ANSYS\_2024R1\_FORTEVM.zip

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

N/A

### Required License Manager:

N/A

### Also Included in this Package:

N/A

### You may also want this Package:

- ANSYS Product Documentation



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# Chapter 59: Download Center Info - Verification Manual Files - Fluent

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## Workbench Verification Manual Archive Files - Fluent Package Overview

This package contains Workbench Verification Manual Archive Files for Fluent.

### ANSYS Release:

2024 R1

### Updates:

None Available

### Package Name:

ANSYS\_2024R1\_FLUENTVM.zip

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

N/A

### Required License Manager:

N/A

### Also Included in this Package:

N/A

### You may also want this Package:

- ANSYS Fluids
- ANSYS Product Documentation





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# Chapter 60: Download Center Info - Verification Manual Files - LS-Dyna

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## Workbench Verification Manual Archive Files - LS-Dyna Package Overview

This package contains Workbench Verification Manual Archive Files for LS-Dyna.

### ANSYS Release:

2024 R1

### Updates:

None Available

### Package Name:

ANSYS\_2024R1\_LSDYNAVM.zip

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

N/A

### Required License Manager:

N/A

### Also Included in this Package:

N/A

### You may also want this Package:

- ANSYS LS-Dyna
- ANSYS Product Documentation



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# Chapter 61: Download Center Info - Verification Manual Files - Mechanical

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## Workbench Verification Manual Archive Files - Mechanical Package Overview

This package contains Workbench Verification Manual Archive Files for Mechanical.

### ANSYS Release:

2024 R1

### Updates:

None Available

### Package Name:

ANSYS\_2024R1\_MECHANICALVM.zip

### Platform Availability and Package Format:

Windows x64 ... zip format

### Applications Supported by this Package:

N/A

### Required License Manager:

N/A

### Also Included in this Package:

N/A

### You may also want this Package:

- ANSYS Structures
- ANSYS Product Documentation

