

What is supported in this release?

With the 2023.1 release MSC Apex continues to offer two separately licensed products:

1. MSC Apex Modeler
2. MSC Apex Structures

With MSC Apex Structures, you can perform a linear static, buckling, normal modes, or frequency response analysis entirely within MSC Apex. With direct modeling and generative meshing, your CAE work will be a truly interactive experience.

Here are some of the highlights of the MSC Apex Release

What's new in MSC Apex 2023.1

- MSC Apex 2023.1 is primarily a bug-fix release
 - 160 issues from previous versions of MSC Apex identified and resolved
- User Interface and Meshing
 - Shell meshing edge curvature refinement enhancement for facet bodies
- MSC Nastran Pre-Processing
 - Support for MSC Nastran PSHELL with an extra layer of abstraction to simplify the user experience
 - The ability to automatically create PSHELL entries when midsurfacing
 - Constant offset and thickness tool
- Post-Processing
 - Improved animation performance
- Automation and Customization
 - [MSC Apex Utilities Help](#)

What's new in MSC Apex 2022.4

- User Interface and Meshing
 - Local Pattern Meshing
 - Enhanced Mesh Layer Control in Solid Meshing
 - Improved Edge Based Curvature Refinement
 - Creation of Hybrid Hexa/Tetra Solid Meshes
- MSC Nastran Pre-Processing
 - New MSC Nastran Materials support
 - New MSC Nastran Properties support
- MSC Nastran Post Processing
 - Post Processing of MSC Nastran Modules for SOL 400

What's new in MSC Apex 2022.3

- User Interface and Meshing
 - Import, export, visualization, attribution and post processing of pyramid elements
 - Thickness and proximity sensitive tetrahedral meshing
 - Create a plane at an arbitrary location/orientation
 - Optionally retain original curves used as input in Filler Surface Creation

- MSC Nastran Pre-Processing
 - Support reference coordinate systems on parts and MNF bodies
 - Visualization and post-processing of MSC Nastran Modules
 - 3D Bolt Enhancements
 - Solution 400 Flexible Contact Bodies
 - New MSC Nastran Elements support
- MSC Nastran Post Processing
 - Charting persistence and multiple chart views
- Automation and Customization
 - Enhanced Face Selection

What's new in MSC Apex 2022.2

- User Interface and Meshing
 - Surface meshing enhancements
 - Curvature based meshed refinement for facet bodies
 - Proximity mesh refinement
 - Using 'points' and 'curves' (created with the Geometry Edit tools) in the sketch environment
 - 3-Point Arc
- MSC Nastran Pre-Processing
 - MSC Nastran Nonlinear Support
 - Solution 400 Subcase Step and simulation settings enhancements
 - Solution 400 post processing enhancements
 - 2D Element Property Enhancements
 - Create Fastener (CFAST) by property
- MSC Nastran Solver Integration
 - Integrated Nastran Execution Experience in Apex
 - PAA Migration Complete
- MSC Nastran Post Processing
 - CFAST post-processing support
 - Cutting and capping performance improvements
- Automation and Customization
 - Design Variable Support

How do I get started?

The user experience has been designed to provide engineers and CAE analysts with the most efficient and easy-to-use CAE tools on the market. To get started we recommend you follow the following steps:

- Go through the application Getting Started Tutorials
 - a. From the Help Menu choose Getting Started or press F1.
 - b. This will open the Getting Started document. There are eleven tutorials covering both MSC Apex Modeler and Structures.
 - c. The first six tutorials cover MSC Apex Modeler. These tutorials will help you quickly get up and running by introducing the MSC Apex interface.
 - d. The last five tutorials cover MSC Apex Structures. These take you through the steps required to perform an analysis and view results.

Note: If you have not used MSC Apex previously, it is highly recommended you go through the Modeler tutorials first to familiarize yourself with the MSC Apex modeling environment.

You will notice the application has a comprehensive set of help tools:

- Hover over icons will reveal a comprehensive tools tip with links to the documentation and animations
- At mouse instructions pop-up as you are using a tool
- Workflow instructions are available at the bottom of each tool property options panel
- A comprehensive database of movies can be played with the Video Player accessible under Windows/Video Player
- Viewing the included documentation files requires that you have a default web browser installed, since MSC Apex will attempt to open the HTML files with the default browser.

How do I provide feedback?

We want to hear from you. Please let us know what you like, what enhancements are required, and what issues you encounter.

Details for contacting Hexagon Support can be found at:

<https://simcompanion.hexagon.com/customers/s/case/Case/Default>.

How do I get Support?

For technical support on MSC Apex, please see the table below.

Commercial Release	
For questions related to installation, licensing, and configuration...	Email m_sc_lic.support@mscsoftware.com
To report a Crash, a Defect, or an Enhancement Request...	Use the Integrated Reporting Tool. For additional information on the Integrated Reporting tool, visit SimCompanion and enter IRT in the search field.
For general inquiries about the product...	Email m_sc_apex.support@mscsoftware.com or call your local support hotline Visit SimCompanion for more information on local support numbers.
For a list of frequently asked questions and answers...	Visit SimCompanion and search for Apex under Technical Articles:
For a list of Known Issues...	Visit SimCompanion Product Info and Docs Page and view Known Issues for this release.
For information on the Application Programming Interface...	View the included API documentation delivered with the product, or visit SimCompanion and view article number DOC11124

Computer Requirements	
Hardware Platforms	Intel Core 2 Duo, I7 and Intel Xeon, Intel Core 2 Quad
Memory	8 GB Minimum 16 GB (or higher) Recommended
Swap Space/ Page File	Swap = 1.5 times the memory size.
Disk Space	12-20GB*
Operating Systems	Windows 10 Professional (64-bit)
Other	3 Button Mouse
Graphics Devices	1280x1024 or higher resolution

The application may actually run with fewer resources than shown, but we recommend these minimums for practical use. These guidelines are based on typical use.

For the latest information on supported platforms for upcoming releases of Hexagon products, please visit the following web site:

<https://hexagon.com/support-success/manufacturing-intelligence/design-engineering-support/platform-support>

Supported File Formats MSC Apex imports these file types:	
ACIS	Up to ACIS R27
CATIA V4	All 4.x
CATIA V5	R10-R32
CATIA V6	2011-2013X
3D Experience	2014-2022X
IGES	5.2 / 5.3
Inventor	All through 2023
Parasolid XT	Up to 34
Pro/Engineer / Creo	From 13 to Creo 9
SolidWorks	All through 2023
STEP (.stp)	AP 203/214/242
Stereolithgraphy	.stl
Unigraphics/NX	From 11.1 to NX CR 2206

MSC Apex Exports these file types:	
Parasolid XT	Version 33 text files (.x_t) and binary files (*x_b)
MSC Nastran input file	.bdf
ACIS Geometry	.sat
Stereolithgraphy	.stl
Modal Neutral File	.mnf