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Extend Your Designer Toolbox with NX Tokens

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Where today meets tomorrow.



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2020-06-02

Agenda

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- What are NX Tokens?
- How is it licensed?
- How does it work?
- What are the capabilities?
- How to get started?
- Why choose tokens?
- Q&A

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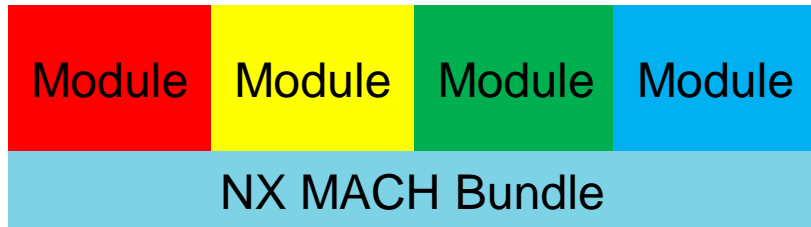
What are NX Tokens?

NX Value Based Licensing “Tokens”

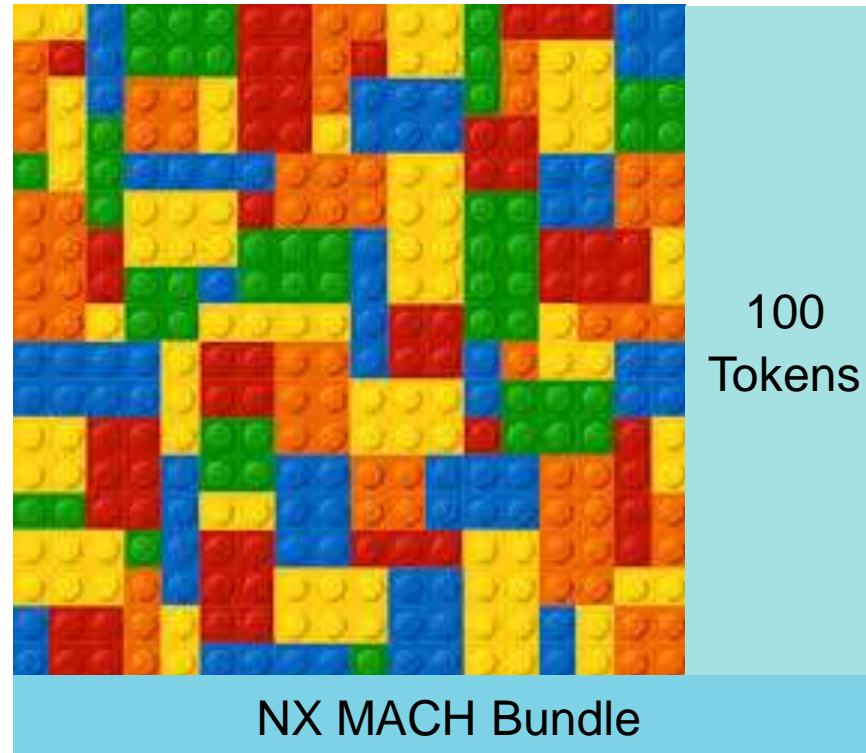
What is it?



Traditional



“Tokens”



**50+
Modules**

Flexible

**Cost
Effective**

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How is it licensed?

NX Value Based Licensing “Tokens” Licensing Options



NX Value Based Licensing 100 Pack

Product Code: NX35100
License Type: Subscription
Tokens: 100
User Type: Floating

NX Value Based Licensing 50 Pack

Product Code: NX35050
License Type: Subscription
Tokens: 50
User Type: Floating

NX Value Based Licensing “Tokens” FAQ



For Casual Usage

Base application
MACH 1 Design (FL)
or higher

First
token value pack
must be 100

Simcenter 3D tokens
are different than
NX tokens

NX1872 or higher
and
NX12.0.2 MP14

Annual
subscription
only

Cannot borrow
tokens

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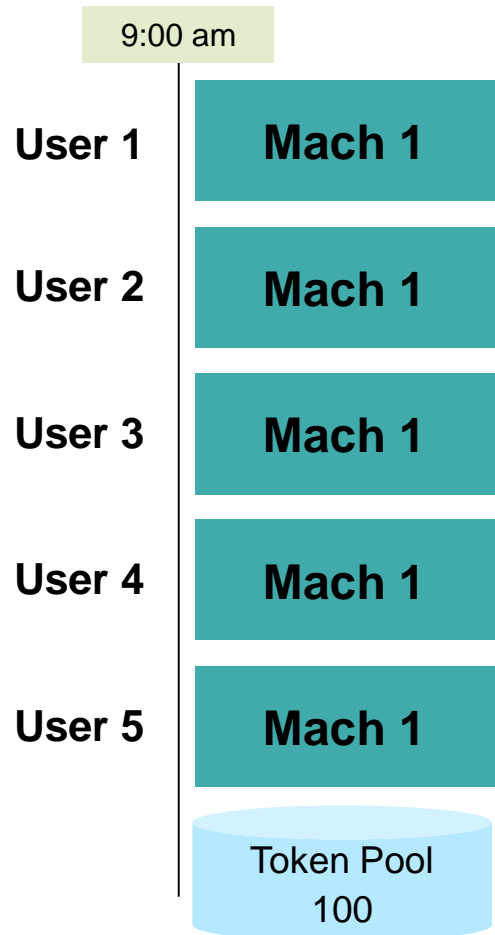
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How does it work?

NX Value Based Licensing “Tokens” Use Case



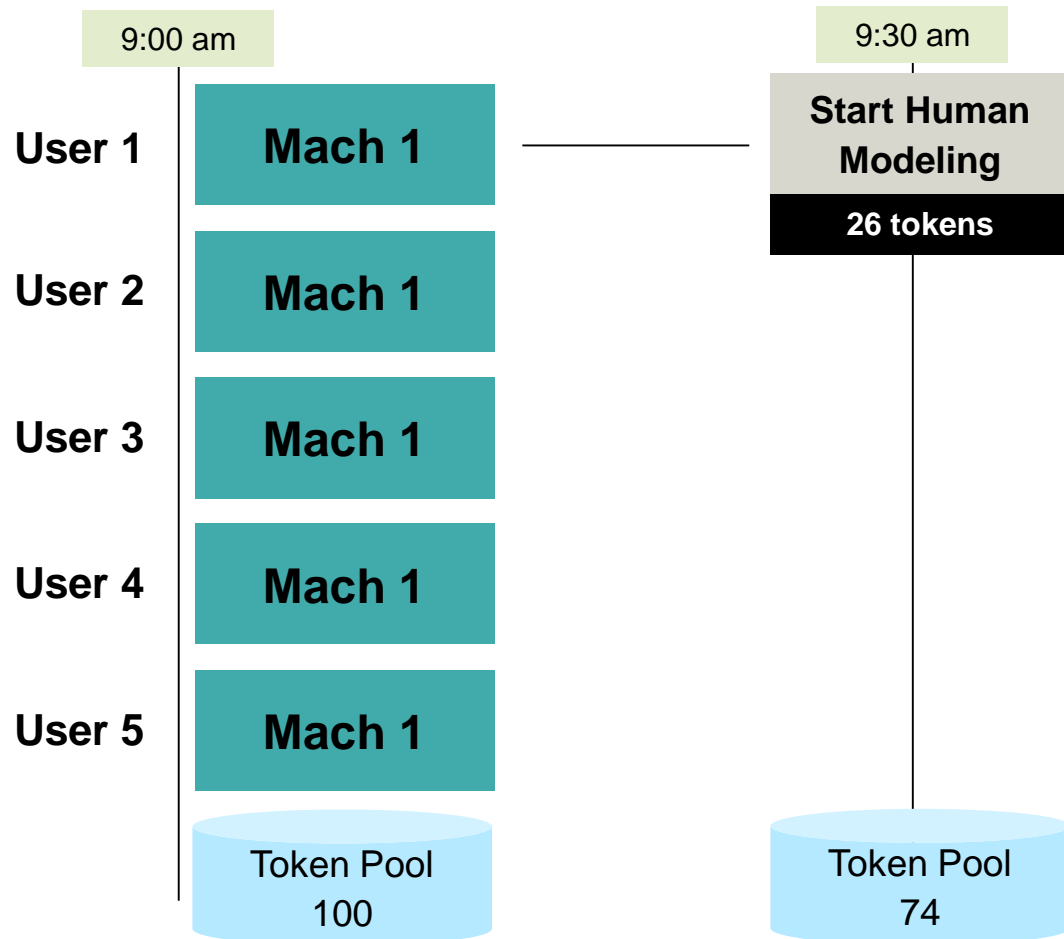
Consider a configuration of 5 x Mach 1 floating seats and a 100 token value pack



NX Value Based Licensing “Tokens” Use Case



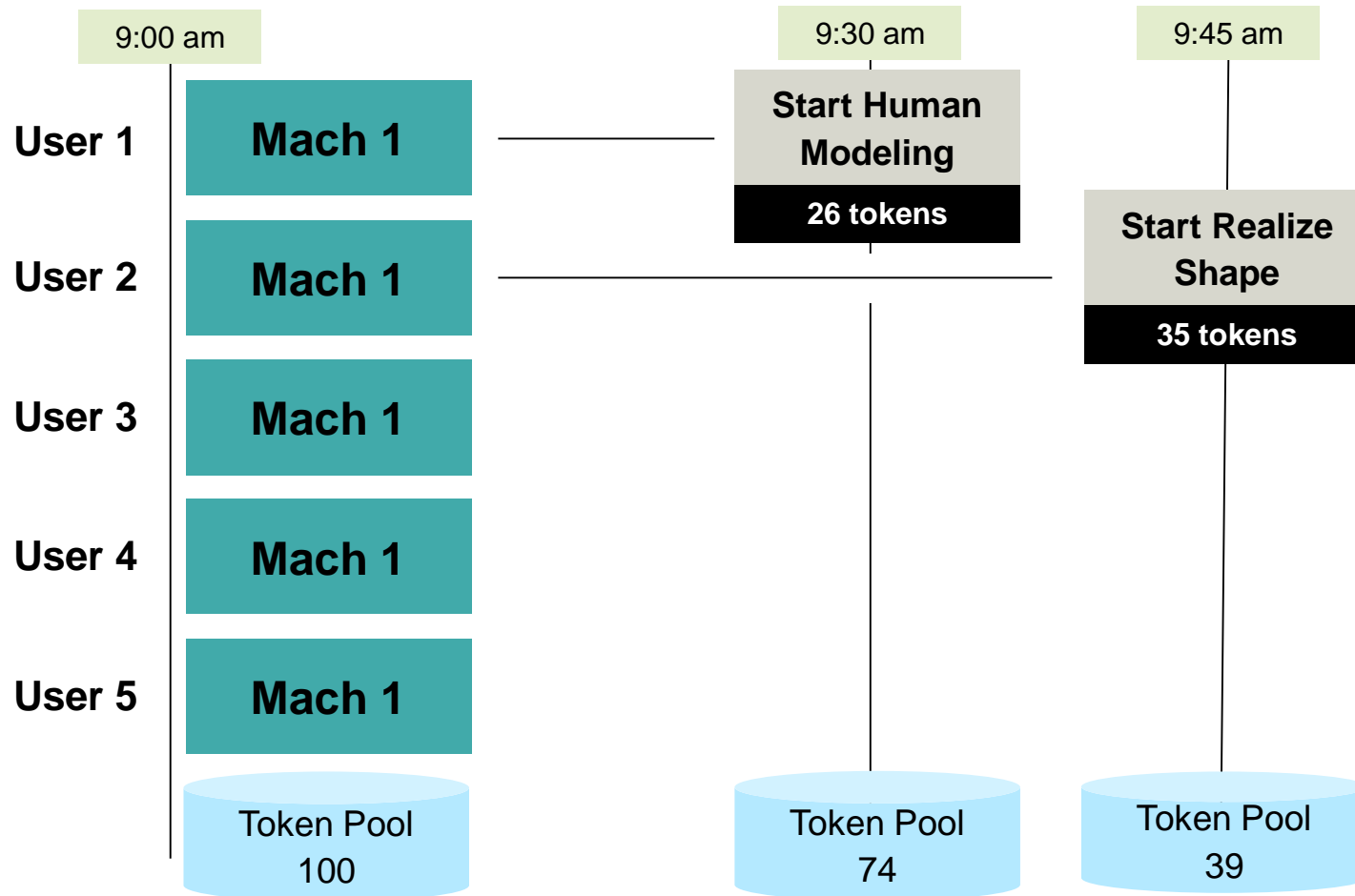
At 9:30 one of his users starts using NX Human Modeling



NX Value Based Licensing “Tokens” Use Case



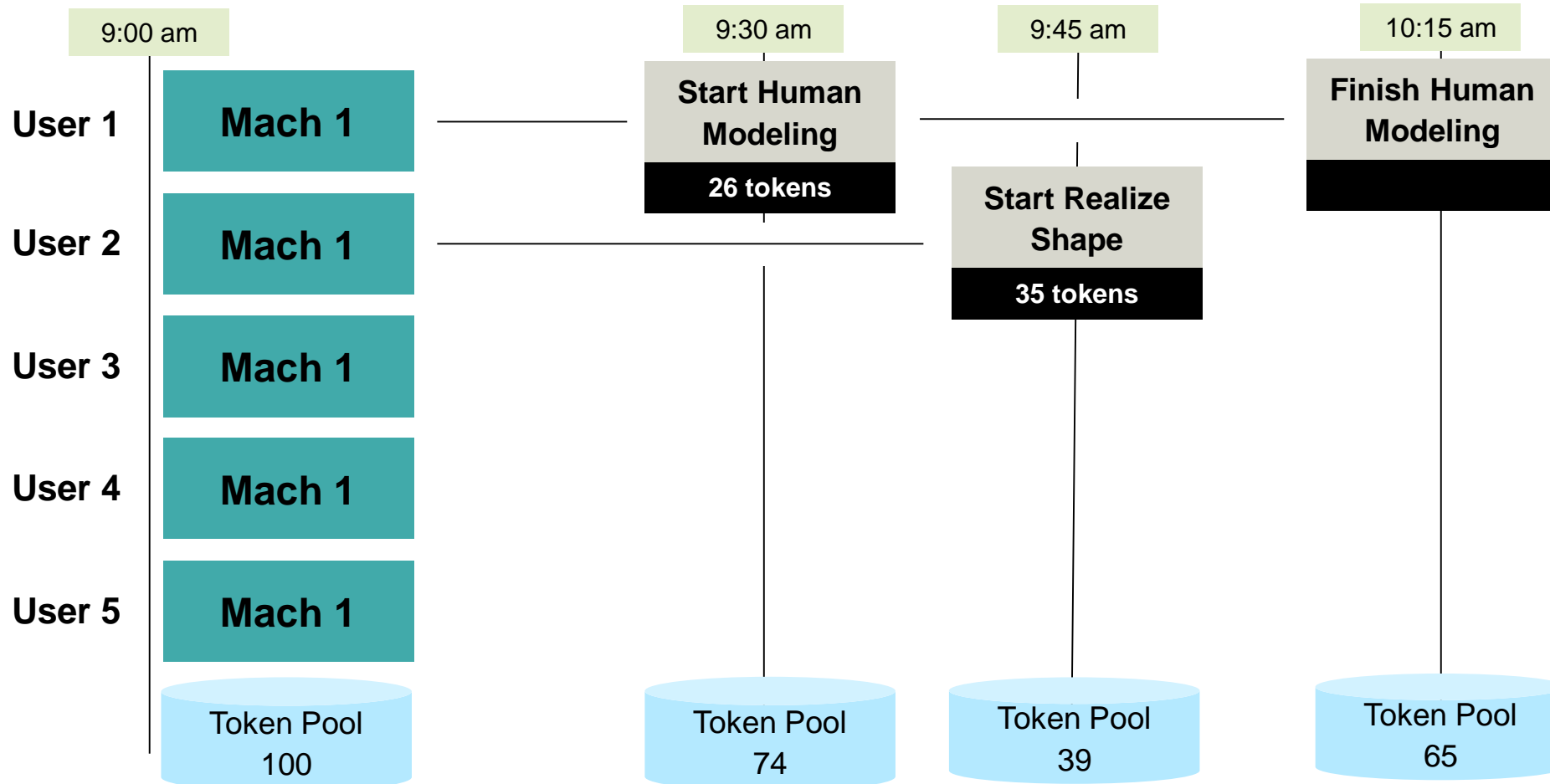
Then a second user starts using NX Realize Shape



NX Value Based Licensing “Tokens” Use Case



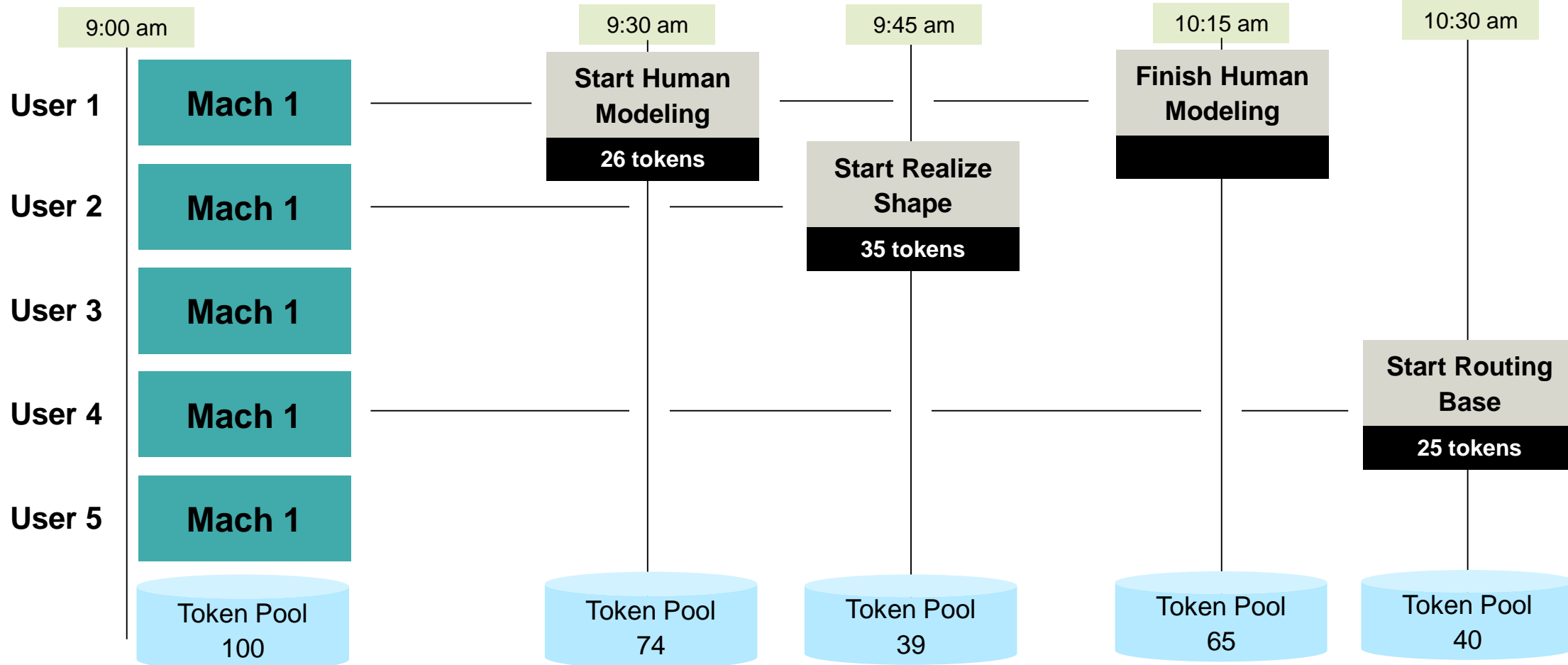
When the first user finishes with Human Modeling the tokens are returned to the pool



NX Value Based Licensing “Tokens” Use Case



Another user starts running Routing Base



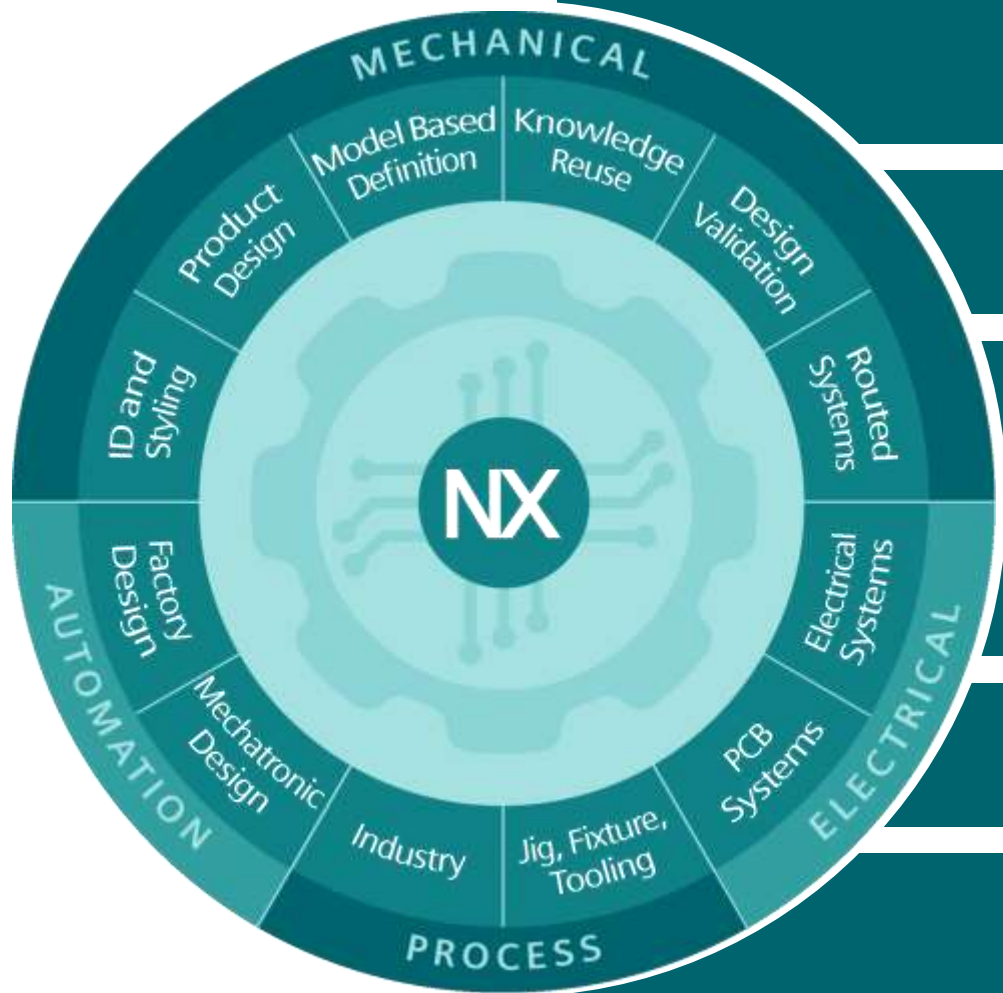
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What are the capabilities?

NX: Breaking down the barriers to innovation



Most Productive Modeling Environment

Generative Engineering

Industrialized Additive Manufacturing

Electromechanical Design

Collaborative Design and Management

Integrated Simulation and Manufacturing

NX Value Based Licensing “Tokens” Modules in Token Pool



Advanced SM
Path Extraction
Kinematic
Motion Studies
Ergonomics
Native Viewer
Weld Design

Mechanical Design	NX30173	Drawing Automation for NX (M10 and +)
Mechanical Design	NX30140	HD3D Visual Reporting
Mechanical Design	NX30111	NX Advanced Sheet Metal
Mechanical Design	NX30171	NX Aerospace Design Add-On
Mechanical Design	NX30128	NX Assembly Path Planning
Mechanical Design	NX30112	NX Fabric Flattener
Mechanical Design	NX30178	NX Animation Designer
Mechanical Design	NX30624	NX G
Mechanical Design	NX30113	NX H
Mechanical Design	NX30114	NX H
Mechanical Design	NX32000	NX P
Mechanical Design	NX33000	NX P
Mechanical Design	NX30162	NX P
Mechanical Design	NX30150	NX R
Mechanical Design	NX30151	NX S
Mechanical Design	NX30301	NX S
Mechanical Design	NX30144	NX S
Mechanical Design	NX30145	NX Ship Structure Detail Design
Mechanical Design	NX30120	NX Viewer
Mechanical Design	NX30127	NX WAVE Control
Mechanical Design	NX30122	NX Weld Assistant
Mechanical Design	NX30185	Physical Architecture Diagram Author
Mechanical Design	NX30184	Physical Architecture Diagram Viewer
Mechanical Design	NX30183	Physical Parameter Management Author
Mechanical Design	NX30187	Physical Parameter Management Viewer
Industrial & Styling	NX30174	NX Realize Shape
Package	NX30109	NX General Packaging

Industry Specific
Aerospace Design
Ship Design
Vehicle Design Automation
Mechatronics Concept Design

Electro-Mechanical	NX30535	Mechatronics Concept Designer for NX
Electro-Mechanical	NX30124	NX MCD Player
Electro-Mechanical	NX30154	NX Routing Base
Electro-Mechanical	NX30153	NX Routing Cabling
Electro-Mechanical	NX30160	NX Routing Harness
Electro-Mechanical	NX30148	NX Routing HVAC
Electro-Mechanical	NX30149	NX Routing P&ID
		NX Routing Piping and Tubing
		NX ACIS Translator
		NX CATIA V4 interface (translator)
		NX CATIA V5 Interface (Translator)
		NX Pro/E interface (translator)
		NX Product Template Studio Consumer
		NX STEP ADD-ON AP242
		NX STEP AP242
		NX VDA Checker
		NX Die Engineering
Tooling & Fixture	NX30202	NX Die Structure Design
Tooling & Fixture	NX30123	NX Electrode Design
Tooling & Fixture	NX30216	NX Feature2Cost - Mold (FL)
Tooling & Fixture	NX30200	NX Mold Wizard
Tooling & Fixture	NX30688	NX Molded Part Validation
Tooling & Fixture	NX30620	NX One-Step Formability Analysis
Tooling & Fixture	NX30205	NX Progressive Die Wizard
Tooling & Fixture	NX30146	NX Ship Structure Manufacturing Prep

Routing

Translators

Tooling Wizards
Mold Costing
SM Flattening

Subdivision
Modeling

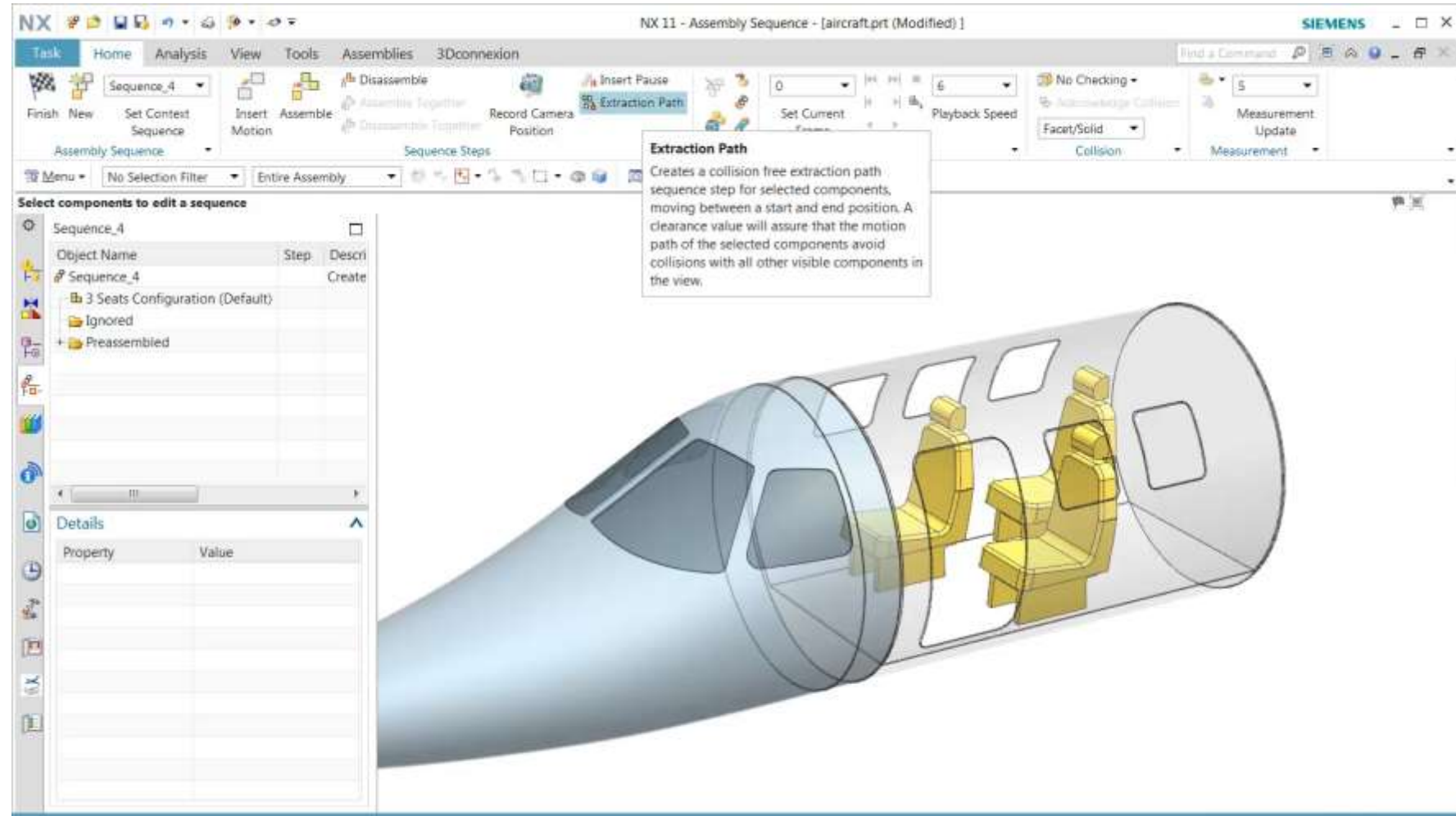


Assembly Path Planning



Automatically create a collision free extraction path for a component

Assist with developing maintenance operation plans



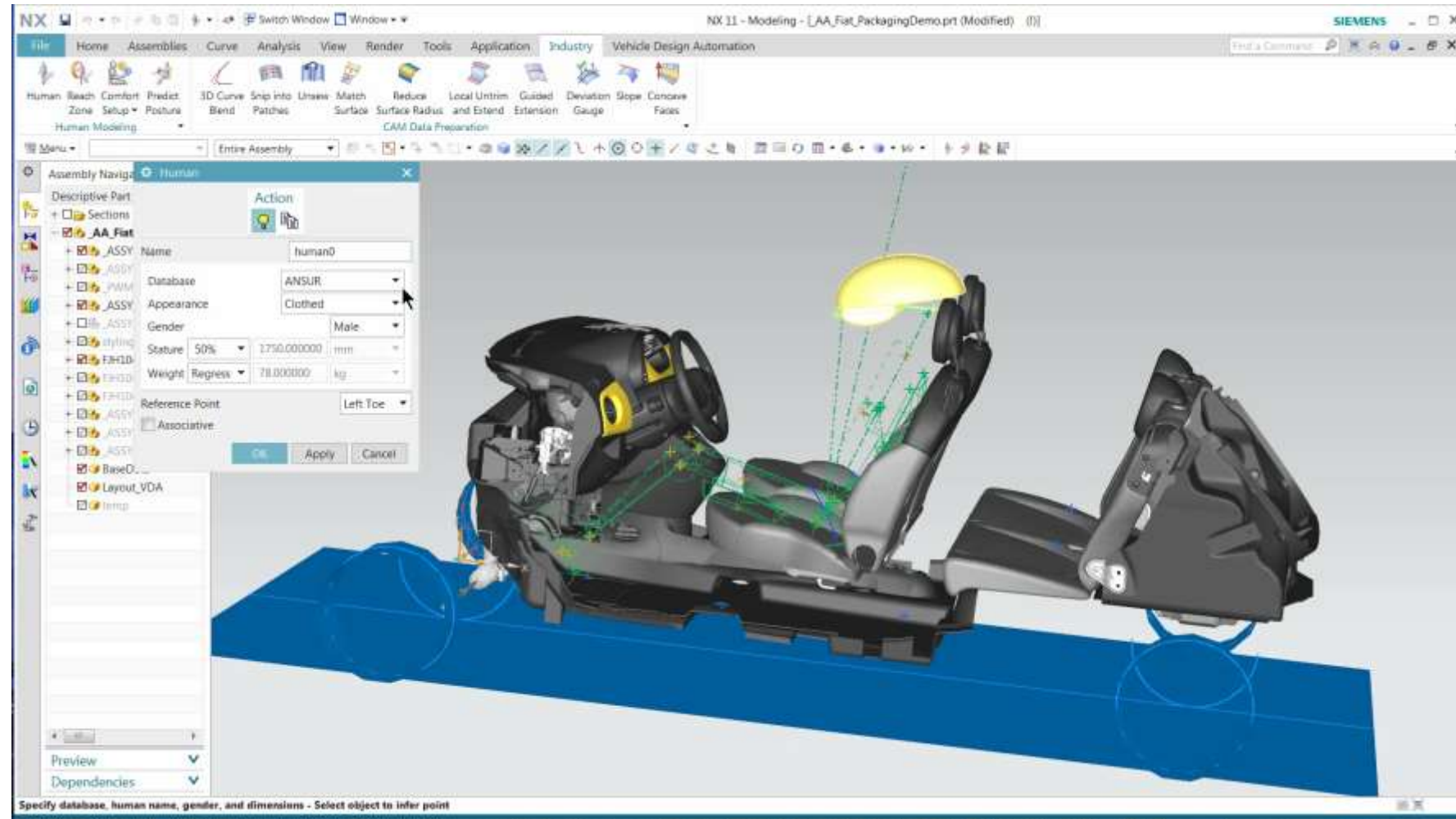
Human Modeling



Use the anthropometric data of the human models to ergonomically optimize your product design

Analyze for body posture, reach, comfort and clearance

Reduce the dependency on physical prototypes



Animation Designer

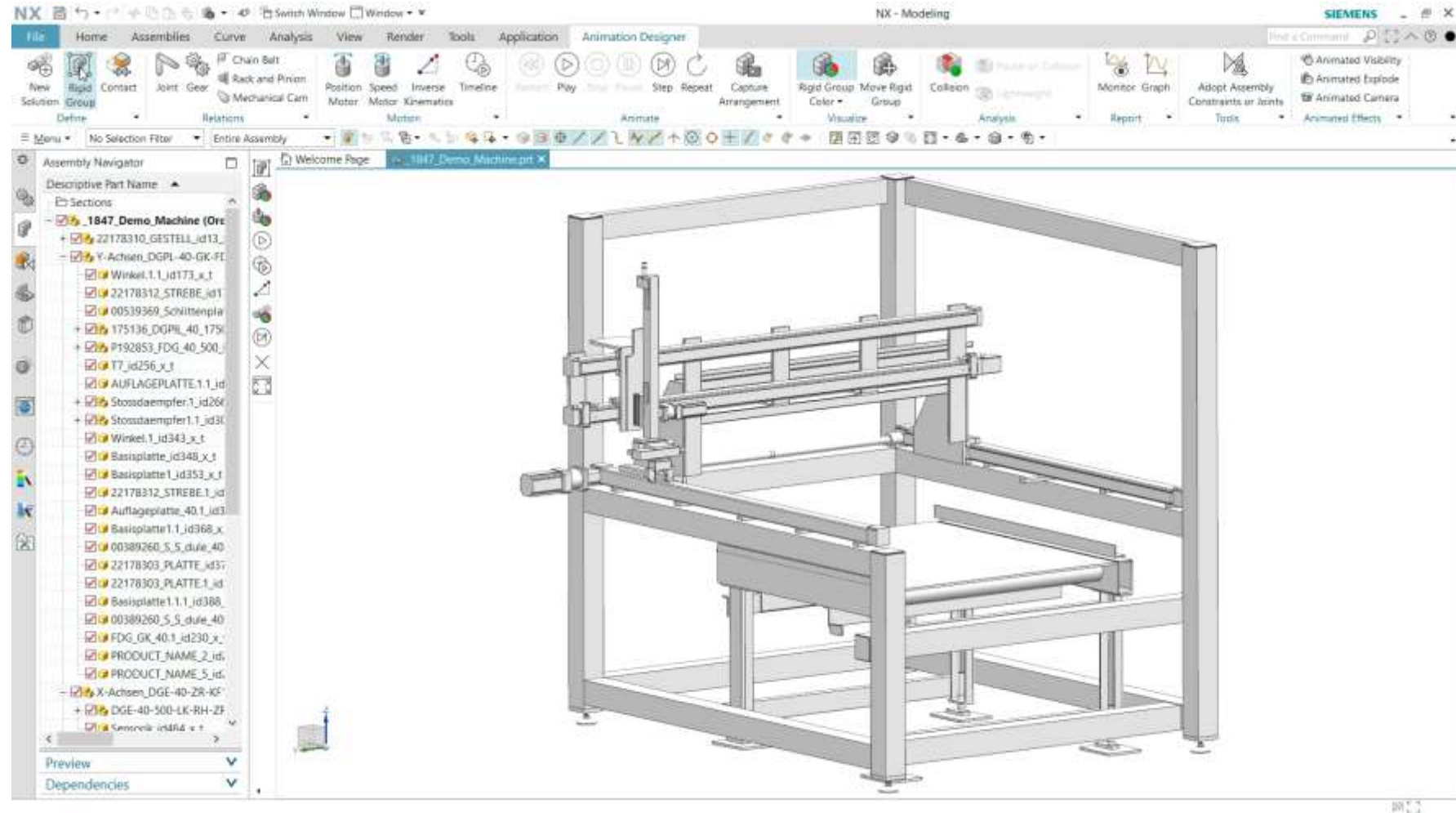


Quickly create motion studies

Check for dynamic interference

Optimize assembly and disassembly sequencing

Generate realistic animations for proposals



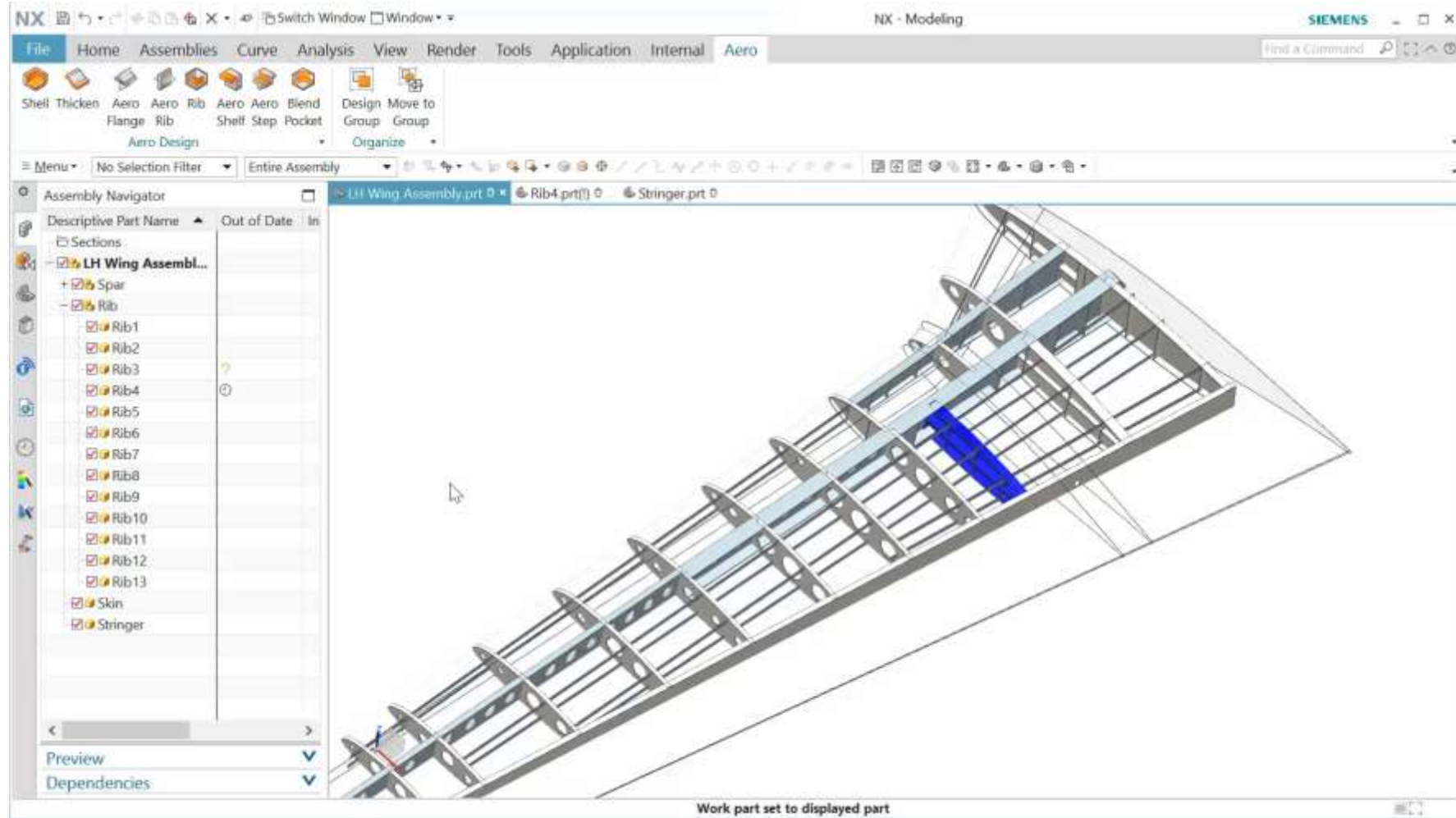
Aerospace Design



Process specific commands for airframe design

- Flange
- Rib
- Shelf
- Step

Increased user productivity

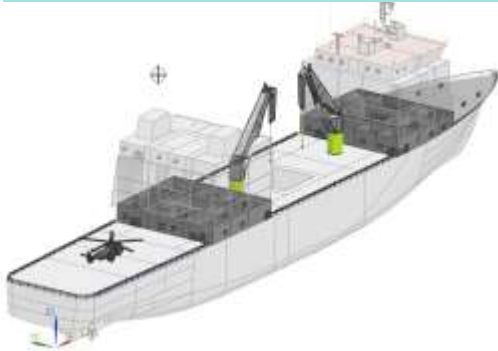


NX Ship Structures Applications



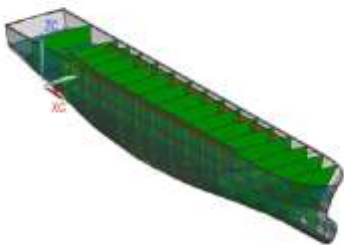
Ship General Arrangement

Provides the necessary functionality to create a 3D model of the General Arrangement of a ship and its corresponding 2D drawings.



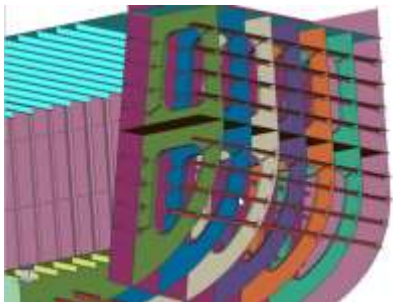
Basic Design

Helps designer model the Initial steel structure of a ship including major ship plate and profile systems and subsystems along with Standard parts, brackets and cutouts



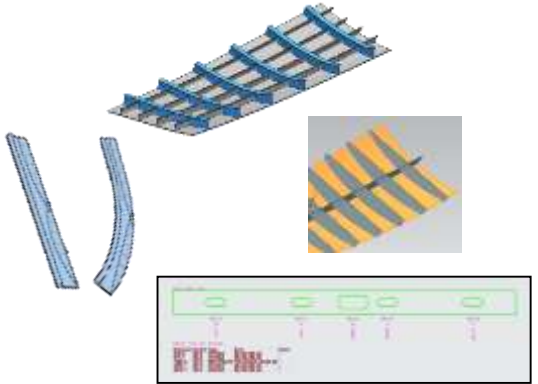
Detail Design

Provides all the tools required to build a fully detailed 3D representation of the structure of the ship from the initial concept or basic design model which can then be used by downstream manufacturing.



Manufacturing Preparation

Provides tools and capability to prepare and organize the manufacturing assembly based on detailed design and additionally add the required production information to detailed parts



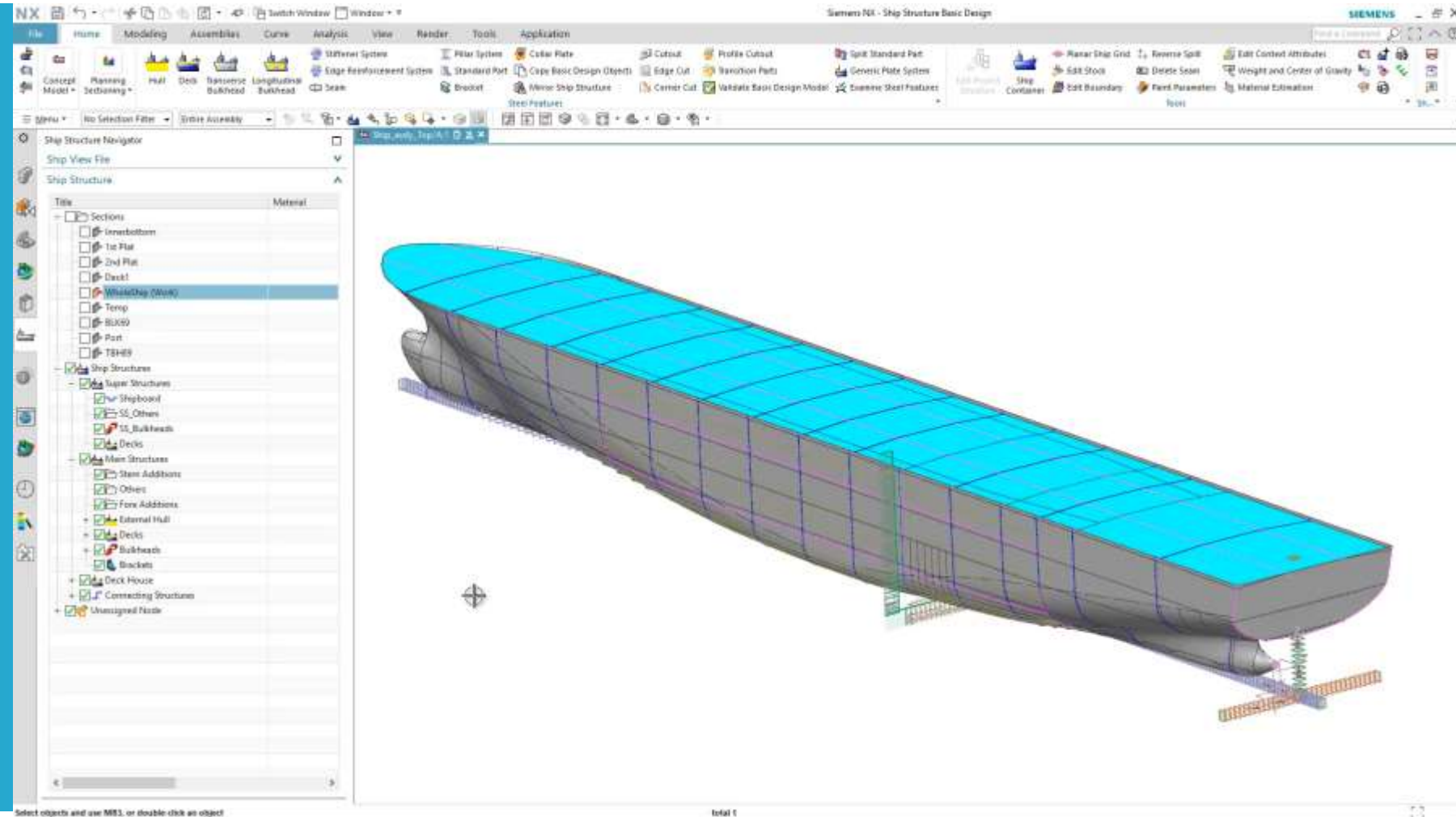
Ship Structure Basic Design



Easy development of initial steel structure from hull form

Supports plate systems, profile systems, seams, standard parts, cutouts

Accurate weight, center of gravity and raw material estimation



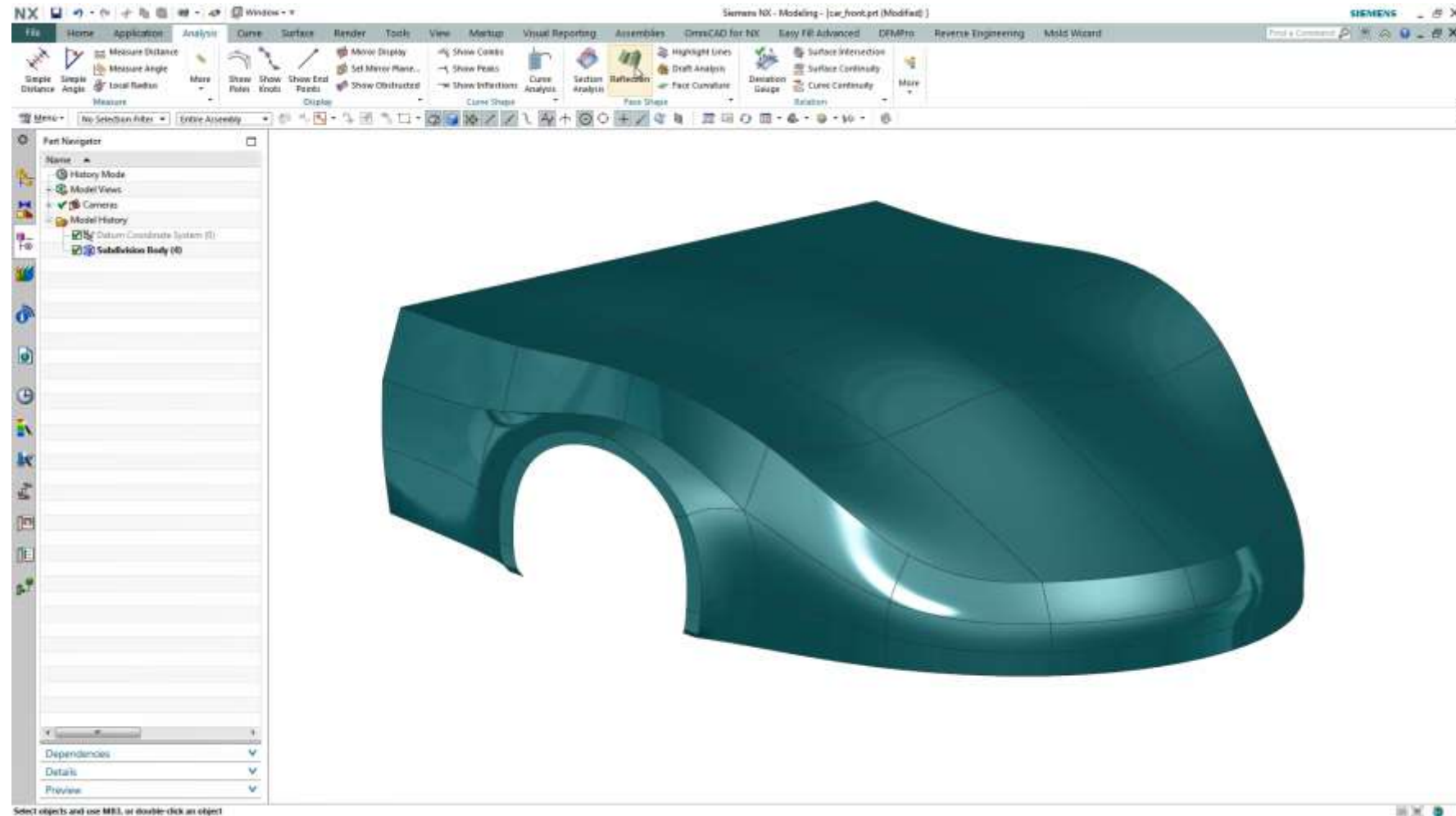
Realize Shape



Develop complex shapes quickly with integrated freeform & subdivision modeling

Easy to use, intuitive push-pull actions

High quality results for full downstream reuse without data conversion



General Packaging Vehicle Design Automation (VDA)

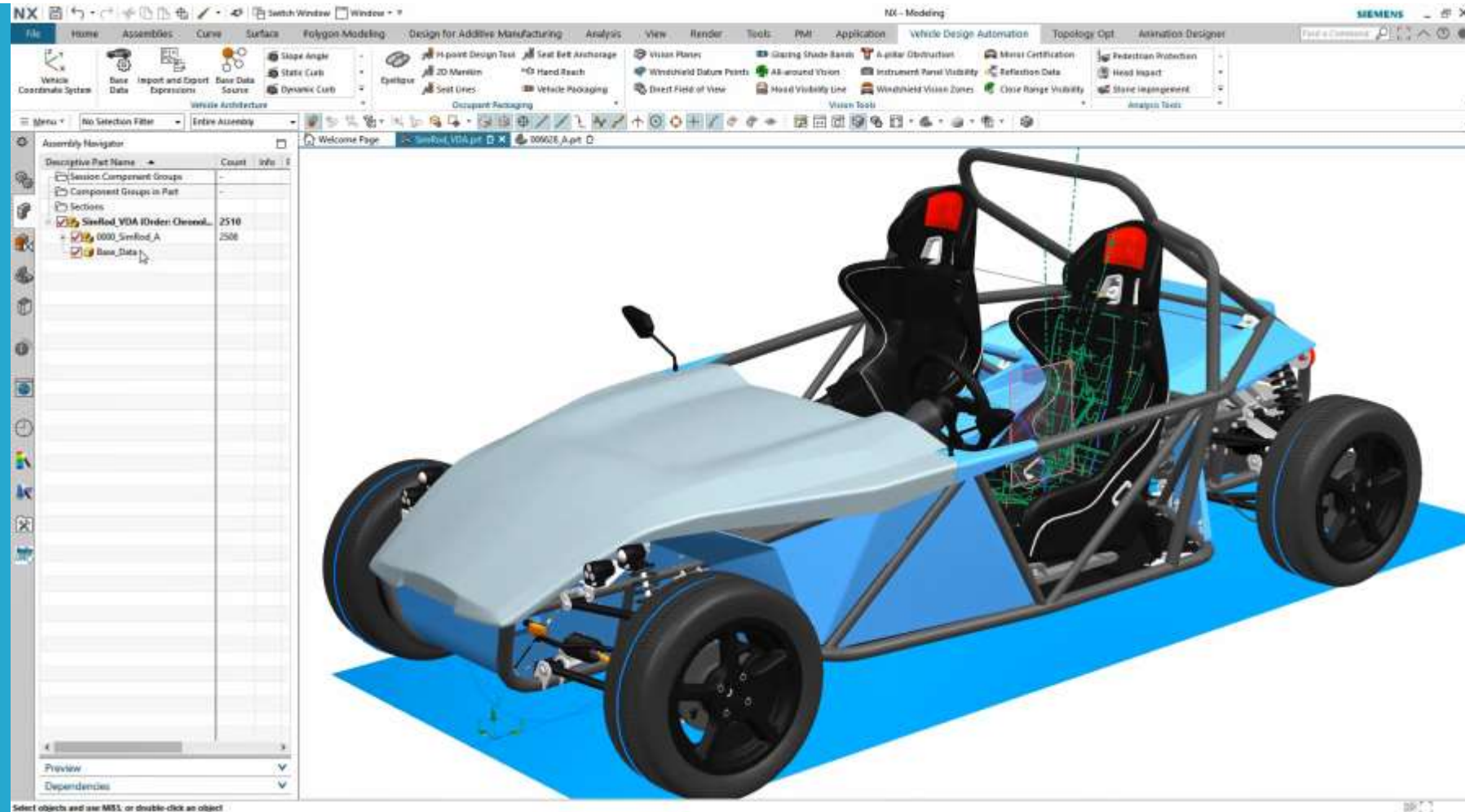
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Wide range of OOTB
occupancy/mechanical
packaging studies and
visibility validation for
automotive

Incorporates several
auto industry validation
standards (GTR, SAE,
ISO, ECE, EEC, etc.)



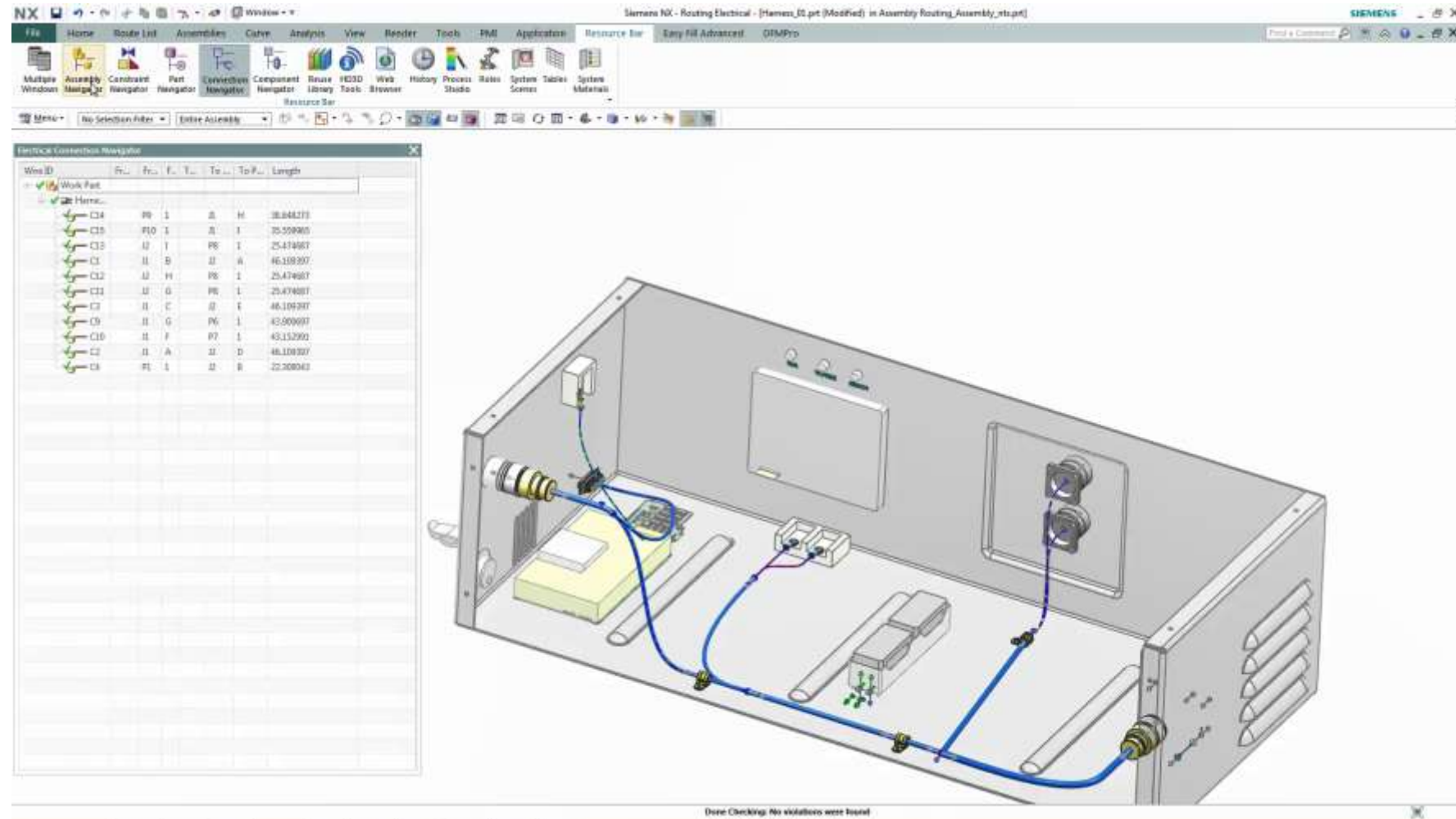
Routing Base + Harness



Quick creation of associative routing paths

Automatic calculation of wire harness bundle diameters

Calculate accurate BOM's and cut lengths for harness manufacturing



Translators



ACIS

**CATIA V4
and
CATIA V5**

Pro/E Interface

STEP AP242

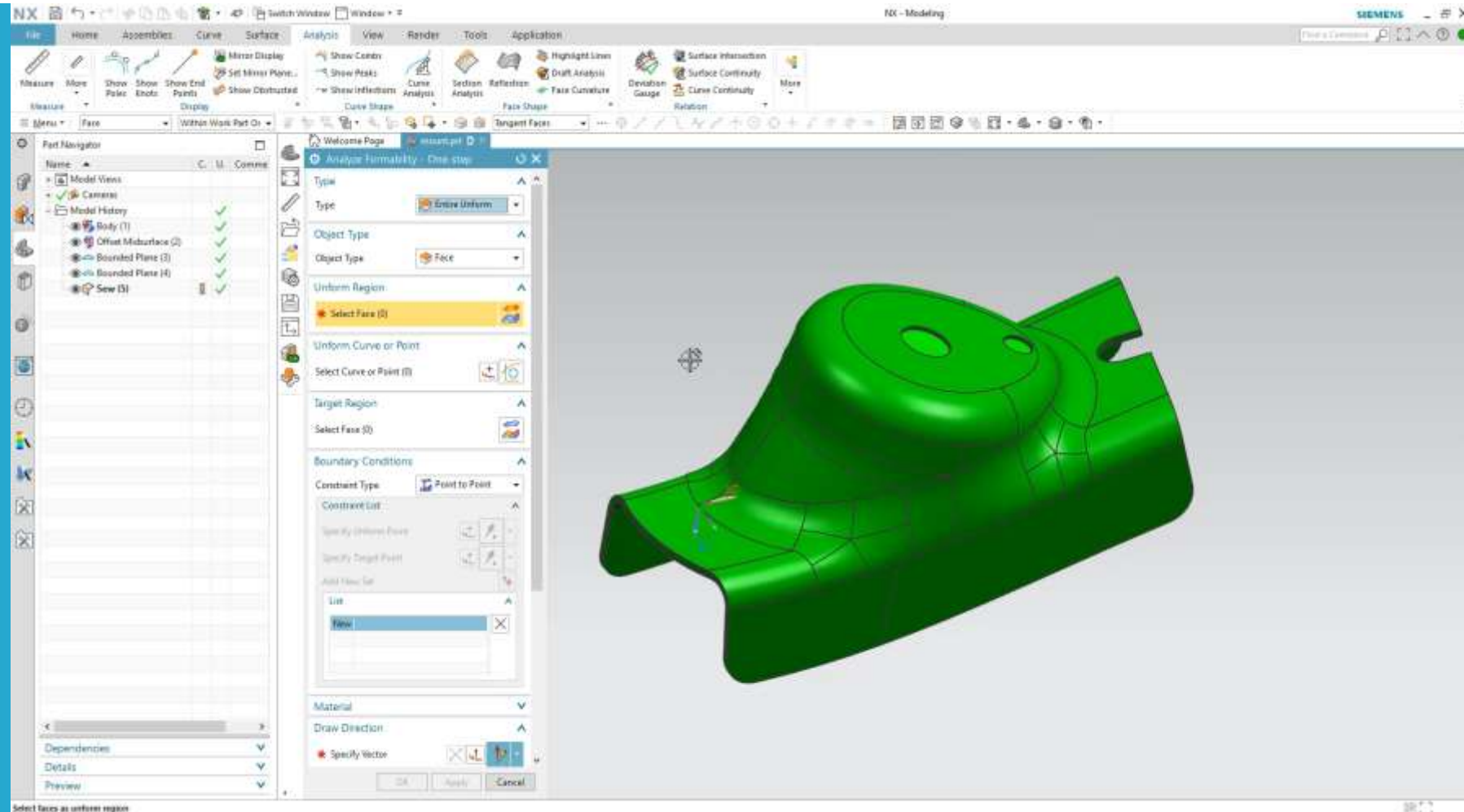
One-Step Formability Analysis



Flatten all or some faces of a complex sheet metal part using FEM analysis

Calculate the thinning, stress, strain, and springback to predict the risk of forming

Output flattened profile and springback bodies



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How to get started?

How to Get Started NX Documentation

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Doc Center

Search

Advanced Search

NX Help

Product area

- Release Notes
- What's new in NX 1899
- What's new in Simcenter 3D 2020.1
- Teacenter Integration for NX
- Getting started with NX

Design (CAD)

- Sketching
- Modeling
- NX Realize Shape
- Assemblies
- Digital Mockup (DMU)
- Animation Designer
- Visual Reporting
- Drafting
- Layout
- Product and Manufacturing Information (PMI)
- Data Reuse
- Piping and Instrumentation Diagramming (PID)
- Routing Systems
- Ship Structures
- Sheet Metal
- NX Analysis
- PCB Exchange
- Flexible Printed Circuit Design
- Optimization and Sensitivity
- Fabric Flat Pattern
- Vehicle Design
- Human Modeling

NX Help

New user experience

A new Welcome Role lets you start using NX with a simpler command set and options. An enhanced Welcome Page offers new user Tips, beginning tutorials, and an interactive What's New? report.

- Learn more about the Welcome Role.
- For Tips, tutorials, and What's New, click the Welcome Page tab when you start NX.

NX Additive Manufacturing

You can now print 3D parts with print marks such as sequence numbers, serial numbers or data codes.

- Adding and patterning parts containing print marks
- Generating geometric bodies for a print mark
- Associative print marks in Additive Manufacturing

Milling

You can now set the tool orientation at specified points on the drive surface with the Across pattern command in Variable Guiding Curve operations.

- Learn more about it.

Stamping

NX now supports operations with nonrotating tools, such as stamping, planing, or ribbing tools.

- Stamping tool type

Simcenter 3D Rotor Dynamics

Rotor Dynamics allows you to model the dynamic behavior of mechanical systems that contain rotating components.

- Learn more about it.

Modeling

The Hole command has an improved dialog box and lets you create holes normal to the sketch plane. Chamfer offers improved accuracy when faces neighboring the edge are not analytic or not conveniently orthogonal.

- Learn more about Hole enhancements.
- Learn more about Chamfer enhancements.

Sketch

Direct Sketch and the Sketch Task Environment are now merged into a single, easy-to-use Sketch application. In Sketch, the new Welcome Role gives new users a simpler set of Sketch commands to start with.

- Learn more about it.

Design Groups

Use the new Design Groups feature to manage a large or small number of features in logical groups that you define.

- Learn more about it.

Radiate Face

Use the Synchronous Modeling Radiate Face command to change the radius of coaxial faces.

- Learn more about it.

New to NX?

- Discovering NX
- Getting started videos

Looking for help on a specific task or feature?

- Search help and filter results
- Select a Product area and browse
- After you search or select, you can click to display the site map.

Looking for other resources?

- Siemens PLM Software Community
- Siemens PLM Software Blog
- Siemens PLM videos
- Training & Support

<https://support.industrysoftware.automation.siemens.com/general/nx.shtml>

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Why choose tokens?

NX Value Based Licensing “Tokens”

Value to You



**Increased
Productivity**

**Access to over
50 design modules**

**Enhanced
Flexibility**

**Share modules
across design organization**

**Cost
Effective**

**Pay one price
to access design modules**

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Q&A

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#IngenuityIsNX