What’s New in NX 11 for Design Engineering

NX Marketing Team – August 2016
The Value of NX CAD

NX will help you:

- Rethink your product development process
- Perform fast, accurate decision-making
- Deliver products “right to market, first time”
- Collaborate effectively with partners and suppliers
- Support design from concept through manufacture

The bottom line is that NX allows you to introduce new products, quicker and with more confidence.
Convergent Modeling

Intelligent scanned 3D data

With facet geometry and solid/surface geometry in the same model, there is less need for time-consuming and error-prone reverse engineering

• Import scanned 3D data as facets, no need for manual shape creation
• Immediately use the scanned-in data without extensive rework
• Reduces the need to map surfaces create solids, or any other manual shape creation
Rapid manufacturing directly from NX

Easily create prototypes or final products

- Send model directly to 3D printer from NX
- Build supports
- 3MF format support for wide compatibility
Feature Modeling

The foundation of modern 3D design

A state-of-the-art parametric solid modeling toolset gets better with new tools and improved usability

- Swept volume sweeps a tool along a path
- Associative boundary for tooling design
- More control over model rebuild and updating
- Improved selection functionality
- More robust hole creation
Surfacing

A vital tool in industrial design and other industries

Powerful new and enhanced tools reinforce existing functionality and help create complex shapes in fewer steps with better accuracy

- Create scaled copies of existing geometry with Scale Curve
- Flatten, modify, and re-form curved surfaces
- Enhanced sheet trimming
- Create a body with constant and variable thickness
Sheet metal

Simpler and more powerful at the same time

By combining functions and adding new options to existing ones, sheet metal is easier to use and more capable than ever, enabling you to create the sheet metal geometry you need in fewer steps

• Advanced Sheet Metal now has added functionality from the aerospace industry
• Advanced Flange improvements
• Complex joggle creation
• Incremental improvements to multiple functions
Industry-leading technology

Incremental improvements to the industry’s best tools for modifying models regardless of where they came from, yielding groundbreaking speed and freedom of design

• Replace an existing face with an open face
• Split one body into multiple bodies
• Automatic face selection for optimization
Significant improvements to core functionality

More control, easier changes, and better access to information.

- Automatic dimension display option
- Scale around sketch origin or first driving dimension
  - Scalable Sketch Group
- More options for constraining to vertices
- Sketch Relations Browser gives easy access to associated objects
- Spline creation enhancements
- Simplified sketch creation dialog box
- Greater user control over display options for better performance
Easy 3D concept design

An intuitive subdivision design tool that uses simple shape manipulation to create high-quality B-surfaces with continuous improvements in functionality and ease-of-use

- Split and merge bodies and copy features with the clipboard to make use of your geometry wherever you need it
- Connect subdivision bodies to any other geometry for increased versatility
- More control over the creation of segments to create the exact shape you need
Fully integrated 2D concept design

Fast, intuitive concept design with better control and more features, you can explore concepts in 2D more efficiently

- Automatically create 2D components from 3D parts
- More control over the hierarchy of your layout with reordering, drag-and-drop, or order application
- Work on an individual component by itself
- Improved functionality with non-native 2D data
Create PMI from legacy 2D drawings

Automatically convert drawing views and objects to model views and PMI objects so you can utilize legacy data without rework by automatically adding intelligence to 3D models

• Includes GD&T, dimensions, notes, and more
• Highly customizable, with options for drawings, sheets, views, and annotation objects
• Batch mode for converting large amounts of objects
Annotation

Dimensioning and other improvements

Annotate your model quickly and easily with full standards compliance

• Faster, easier dimension creation with on-screen handles and inherited access and scope
• Designate a secondary depth on a hole callout for things like thread depth
• Create a section line based on an associative PMI cutting plane
A state-of-the-art tool for drawing creation and modification

Drawings remain an important part of the design process for many companies, and in NX 11 they are faster, more intelligent, and accurate than ever.

• Smart Lightweight Views are significantly faster than before
• Drawing Compare has new functionality:
  • Overlay drawings
  • Display multiple assembly arrangements on a drawing
• More settings to support standards compliance
Teamcenter Integration

NX and Teamcenter work more closely than ever

Industry-leading design tightly integrated with industry-leading product lifecycle management gives you better data communication and clarity

- Export Attribute Template
- Intelligent Save
- Property name display
Active Workspace

Access to a broad range of PLM capabilities in NX

See your critical product information anywhere inside NX or on mobile with no separate license and no need for installation

• Drag and drop parts to NX
• Multiple select in both NX and Active Workspace
• Access workflows from within NX
• NX Relations Browser displays interpart relationships
High-end rendering

Photorealistic imaging with Lightworks Iray+

Knowing what your product will look like before you make it is a huge advantage in any industry because you can make decisions about aesthetics or materials early on.

- Lightworks Iray+ rendering engine
- Fully integrated into NX Ray Traced Studio
- Large library of materials and scenes
- Multi-threaded to take advantage of modern CPUs and GPUs
- Remote render lets you use remote computers
- Progressive, continues to improve the image indefinitely
Point cloud data is used to capture the as-is status of products and infrastructure objects. In NX 11, you can access this data instead of re-creating it in 3D and use it in the following ways:

• Import point cloud data (POD format)
• Simple measurement such as distance
• Basic editing tools:
  • Show / Hide
  • Edit Parameters
  • Transform
  • Delete
Usability

Easier to use so you can get the job done faster

Constant improvements in usability, speed, and efficiency.

- Fast, easy window switching
- HTML information windows
- Parts open in last saved application
NX on Cloud

Take advantage of full NX functionality in a cloud-managed environment

NX on cloud gives you flexibility, scalability, and reliability that helps you matches business demands as they change

• Available for certain configurations in NX 11
• Reduced complexity, cost, risk, and time involved in installation and updates
• IT can focus on core business rather than managing the NX environment
Thank You

NX Marketing Team – August 2016