



# I-deas 12 NX Series PLM World 2006

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# Evolution of Excellence



- ▶ Provide greatly expanded capabilities by blending I-deas and Unigraphics
- ▶ Leverage industry-leading and production-proven technologies to evolve next generation product
- ▶ Maximize return on customer investment due to the combining of research and development
- ▶ Preserve current investments in products, data, and training



# I-deas Customer Strategy



- ▶ Tactical objective for I-deas customers
  - ▶ To continue to provide robust, high quality I-deas software that drives productivity improvements for your product development
- ▶ Strategic objective for I-deas customers
  - ▶ To migrate from the I-deas environment to the NX environment while preserving your investment and intellectual capital held within the data and while maintaining continuity in the workflows



... provides measurable productivity gains

*and*

... introduces new capabilities for working  
in a multi-CAD environment

*and*

... great progress along the NX Roadmap



# Enhanced Fillet Radii Form



- ▶ Allow for the Selection and Deletion of Edge Chains in the Fillet when using the Variable Radius / Fillet Radii Form
- ▶ Makes Fillet Radii form similar to a Feature Parameter form

Vertex/Ref Point	Radius
V29	5.0
V145	5.0
V57	10.0
V128	10.0
V284	2.0
V286	2.0

New button to select additional edges for the fillet

New button to remove of edges from the fillet

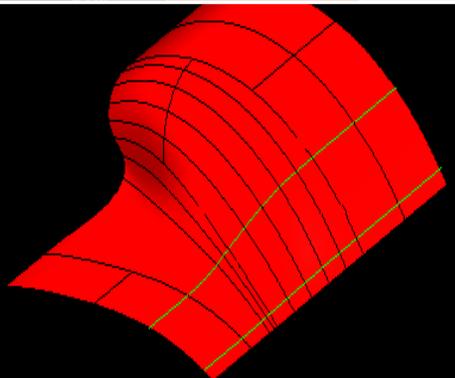
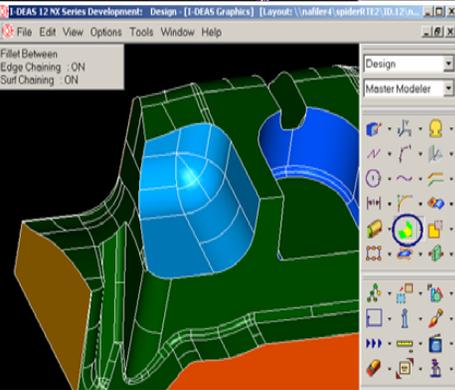
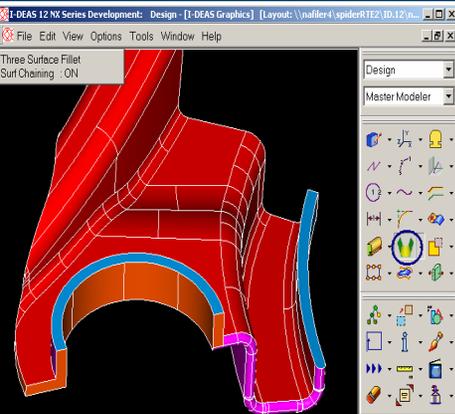
New button to access Tangency Influence form

- Variable Radius
- Options...
- Conic Parameter
- StopShort at Entity
- Measure
- Backup
- Cancel

Access Fillet Radii form via "Variable Radius" menu



# What's New in I-deas 12 Design



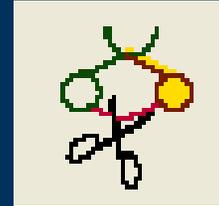
- ▶ Fillet user interface separation in 3 icon commands
- ▶ 3 surface fillet topology and end conditions
- ▶ Fillet surface quality
- ▶ Enhanced Fillet Radii Form
- ▶ Tangency Influence for variable radius fillet
- ▶ Associative Offset Curve on Surface
- ▶ Tangency Handling for Silhouette Curves
- ▶ Robustness for Blend Curve Flipping Direction
- ▶ Extend Surfaces, Make Corner: Stitch Option
- ▶ Extend Surface Option: New Surface
- ▶ Revolve User Interface with Material Side
- ▶ Section Builder User Interface
- ▶ Enhance Feature Copy: Copy Reference Geometry
- ▶ New Boolean Capabilities: Add Partition and Trim
- ▶ Drive Selected Dimensions To/From Excel
- ▶ Modify Options for Coordinate Systems
- ▶ Align Coordinate System for Parts/Instances
- ▶ Entity Appearance Improvements
- ▶ Line Fonts/Appearance for Reference Curves
- ▶ Extract Anything (Items) on Workbench



# Assembly: “Make Unique”



- ▶ “Make Unique” Copy Associated Drawings
  - ▶ Drawings associated with the original part can now be optionally copied and the copies associated with the new part
- ▶ Multiple “Make Unique”
  - ▶ If multiple instances of the same part are selected during “Make Unique”, I-deas will create multiple instances to a single new part



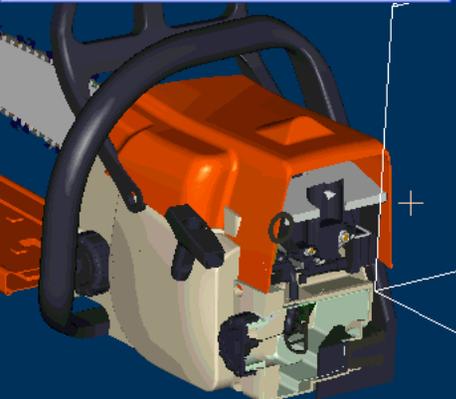
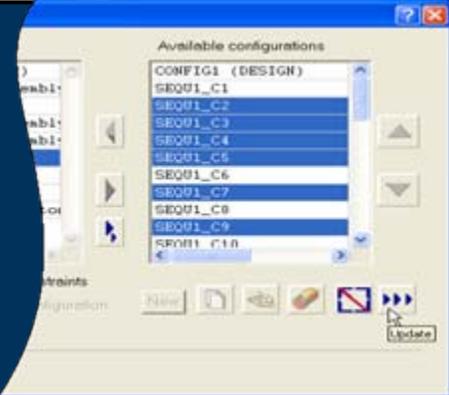
***“The creation of a single new part when multiple instances of the same part are selected during ‘Make Unique’ will significantly reduce the number of steps necessary for product structure changes during the design process.”***

**Brian Slick**

**Ferno-Washington, Inc.**



# What's New in I-deas 12 Assembly



- ▶ Facet Display of Pruned Instances
- ▶ Update Selected Configurations
- ▶ Dynamic Clipping Cap Colors
- ▶ Instance Info From Hierarchy Form
- ▶ Multiple Make Unique
- ▶ Make Unique Copy Associated Part Drawings
- ▶ Multiple Select All
- ▶ OR Filter in Hierarchy Form
- ▶ Rename Part from Hierarchy Form
- ▶ Reflect Assembly Owned 3D PMI



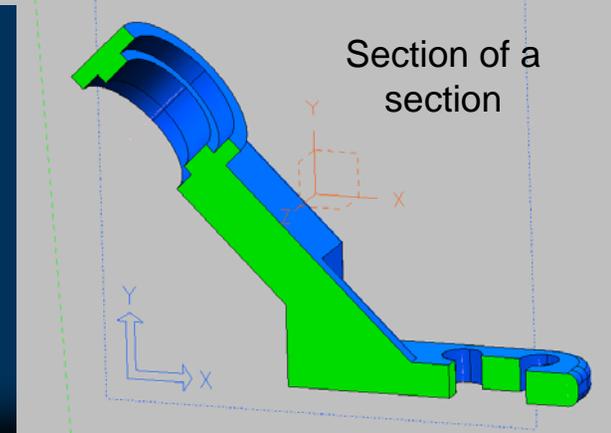
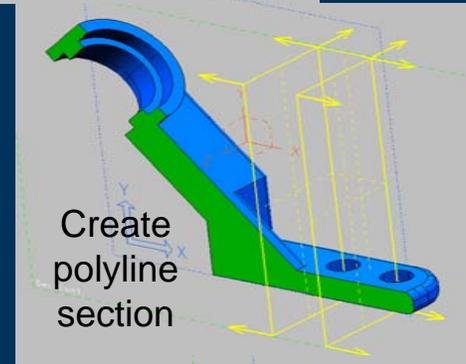
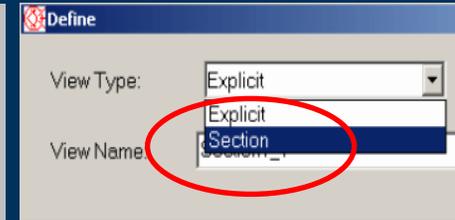
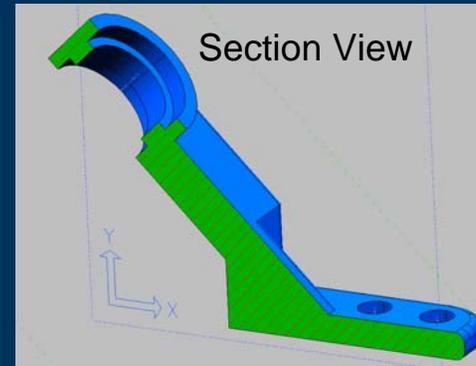
# Section Views of Section Views



- ▶ Ability to create a section view from an existing section view
- ▶ New “Section” view type
- ▶ Cutting Plane Symbols can now be defined in the context of a section view

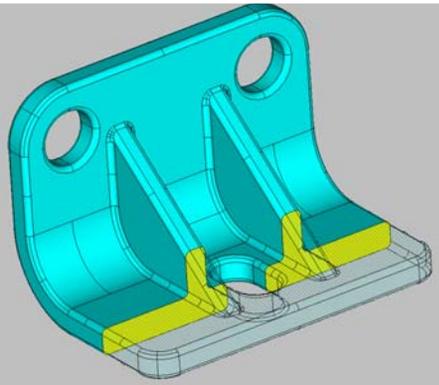
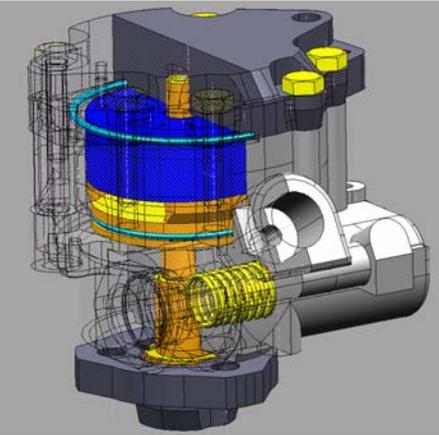
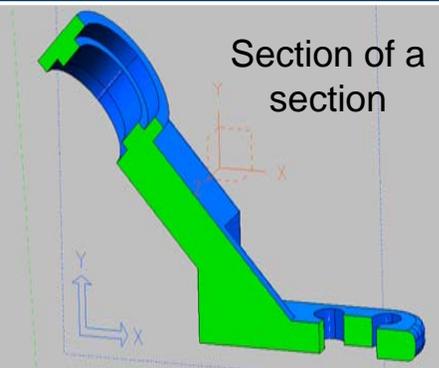
***“We create many section views on our large assembly drawings. The ability to create 3D section views is a huge productivity boost, and the new ‘section of a section’ is a great enhancement.”***

**Egon Welter  
CAD Manager  
Siemens**





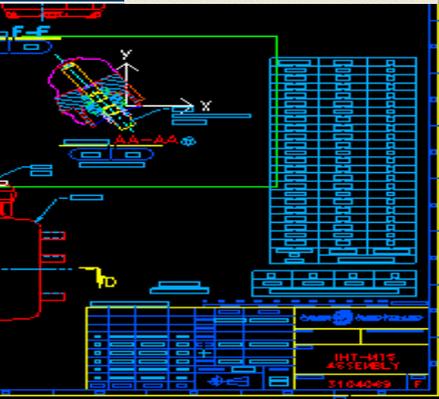
# What's New in Product and Manufacturing Information (PMI)



- ▶ Section Views
  - ▶ Section Views of Section Views
  - ▶ Partition Section View
  - ▶ 3D Section View Performance Improvements
  - ▶ More Modeling Options in Context of Section Views
- ▶ Views
  - ▶ Pick PMI / Model View for an Annotation Plane / Text Direction
  - ▶ Constant View Orientation in Model Views
  - ▶ Section View Orientation Using a Parent
  - ▶ Associated Coordinate System
- ▶ JIS Z 3021 Line Weld Standard Support
- ▶ PMI Symbology
  - ▶ Allow Different Decimal Places for Dimension and its Tolerance
  - ▶ “Dot” as a Leader Terminator
  - ▶ “All-Around” Symbol for PMI
  - ▶ “Between” Symbol in Notes
  - ▶ “Circle U” Symbol in Feature Control Frames
  - ▶ Option for “No” Symbol for Line Welds on Arrow Side
  - ▶ Back Quote Special Character Support
  - ▶ Leader Elbow Option for Datum Target
- ▶ Read / Write Drafting Symbol Files for 3D User Defined Symbols



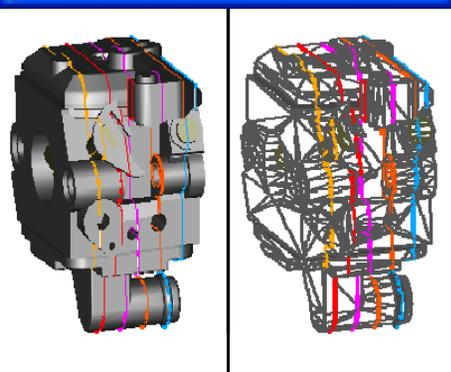
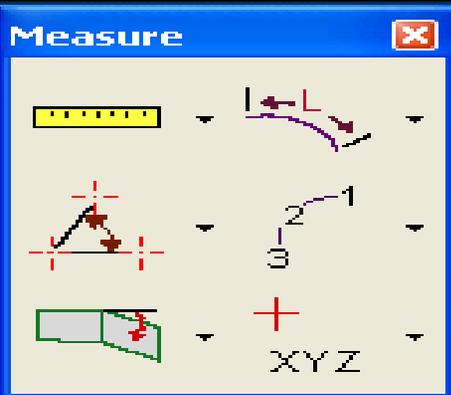
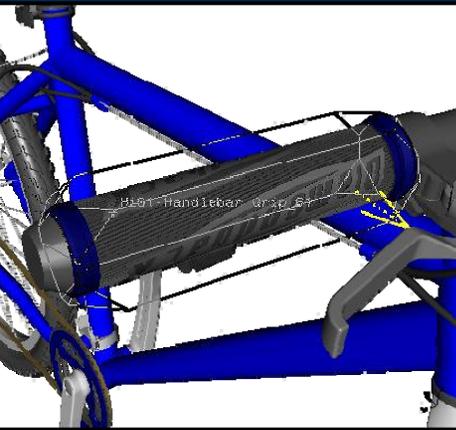
# What's New for Drafting in I-deas 12



- ▶ Drafting and 3D PMI Integration
  - ▶ Transfer New 3D PMI types to Drafting
  - ▶ 3D Section View Normal to Cut Plane
  - ▶ Enable I-deas Drafting Symbol files for use as 3D PMI User-defined Symbols
- ▶ Drafting
  - ▶ Associative Leader for FCS
  - ▶ View alignment for auxiliary and section views
  - ▶ Multiple BOMs on a drawing
  - ▶ 7 New special characters
  - ▶ Drawing Attributes for 2D Annotation
  - ▶ Additional Status Region Information
  - ▶ 7 New Programming Language Calls
  - ▶ Disassociate Drawing from Model
- ▶ I-deas AutoCAD Translator adds support for AutoCAD 2004 DXF and DWG 2D drawing files



# What's New for Multi-CAD in I-deas 12



- ▶ Measure to Underlying Precise on JT
- ▶ Measure to Facet Point/Line/Plane on JT
- ▶ Align JT Instances
- ▶ Sections on JT
- ▶ PMI on JT
- ▶ Assembly Reference Geometry on JT
- ▶ Constraints on JT
- ▶ Printing & Plotting of JT Instances



# CPDA Perspective: I-deas 12 NX Series and Multi-CAD



*“Multi-CAD issues routinely confront major corporations worldwide. With the release of I-deas 12 NX Series and a number of JT-oriented enhancements, UGS is demonstrating the ability to mix light weight and native data bases in an assembly. This approach represents a major competitive advantage for UGS and a very practical solution for companies faced with multi-CAD environments.”*



Ken Versprille  
Partner, PLM Research Director  
Collaborative Product Development Associates, LLC  
(CPDA)



# Windowing Enhancements to Match NX



## *Progressing Along the NX Roadmap*

- ▶ Added 6 Mouse/Cursor Windowing Capabilities to Match NX
  - ▶ Zoom In/Out to Cursor Location
  - ▶ Zoom In/Out Using Middle Mouse Button Wheel
  - ▶ Rotate by Holding Middle Mouse Button (MMB)
  - ▶ Set Temporary Rotation Point by Holding MMB
  - ▶ Pan by Holding MMB and RMB
    - ▶ Pan by Holding MMB and Shift
  - ▶ Zoom by Holding MMB and LMB
    - ▶ Zoom by Holding MMB and Ctrl
- ▶ Existing Function Keys Will Not Change
- ▶ Press/Release of MMB Will Not Change





## *Progressing Along the NX Roadmap*

- ▶ I-deas 12 NX Series and NX 4 will Use the Same Licensing Technology
- ▶ Product Modules will be Mapped following the Existing “Like Module” Mapping
- ▶ Supports Phased I-deas to NX Deployments



Separate License Keys



Same Key for I-deas NX Series and NX



# Daratech Inc. Perspective: I-deas 12 NX Series and I-deas to NX Roadmap



*“I-deas 12 NX Series addresses many of the user communities' top priorities and provides immediate benefit in terms of productivity enhancements and multi-CAD access.*

*The release also furthers UGS' vision for migrating its I-deas base to NX with sophisticated tools to evaluate the impact of such a change. As a result, users seem increasingly able to migrate.”*



Monica Schnitger  
Senior Vice President of Market Analysis  
Daratech Inc.

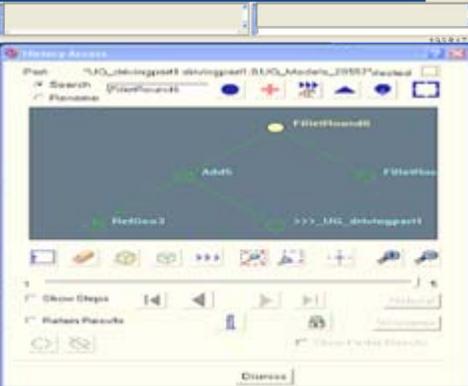
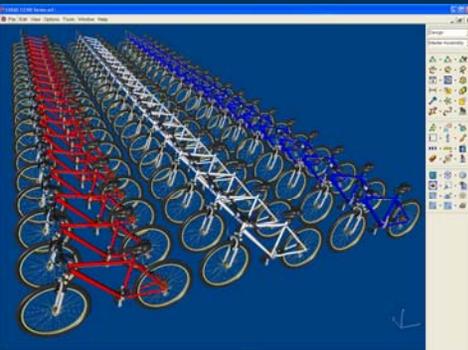


# I-deas 12 m1 Overview



## General Availability March 2006

- ▶ Assembly
  - ▶ Large Model Display
  - ▶ Dynamic Display Switching
  - ▶ Get From Library Faceted When Available
- ▶ Multi-CAD
  - ▶ Display Multiple Levels of Detail for JT
  - ▶ JT Wireframe Display
  - ▶ Interoperability with JT Files
- ▶ Design
  - ▶ Feature Copy Reference Geometry Info
  - ▶ Associative Offset Curve on Surface:  
Add Automatic Surface Picking for Free Edges
  - ▶ Stitch Robustness
  - ▶ History Access Zoom State Preservation
- ▶ New License Borrow Option





# I-deas 12 m1

## Large Model Display Enhancement



- ▶ I-deas NX Series can access and take advantage of RAM memory over 2 gigabytes
  - ▶ 4 Gb on Windows XP 64 & Sun
  - ▶ 3 Gb on Windows XP 32 & HP
  - ▶ Not available on SGI & IBM
- ▶ Improved algorithms to make better use of memory
- ▶ Ability to run 32-bit application in 64-bit emulation
- ▶ Dynamically change memory distribution between application dynamic and display list without restarting I-deas NX Series

The screenshot shows the 'Memory Usage Preferences' dialog box in I-deas 12 m1. The dialog box contains a table with the following data:

Virtual Memory Parameters	Current Limits (meagabytes)	(percent)	Current/Peak Allocation (meagabytes)	Choose limits for next session (meagabytes)
<b>Dynamic allocation</b>				
Application dynamic memory	1121.5	70.0	25.8 / 25.8	1121.5
Display list	480.7	<input type="text" value="30"/>	0.2 / 0.2	480.7
<b>Static allocation</b>				
FORTTRAN workspace	41.0		41.0 / 41.0	<input type="text" value="41"/>
Fixed base	404.8		404.8 / 404.8	404.8
<b>Totals</b>	<b>2048.0</b>		<b>471.8 / 471.8</b>	<b>2048.0</b>
Application memory cleanup events	0			

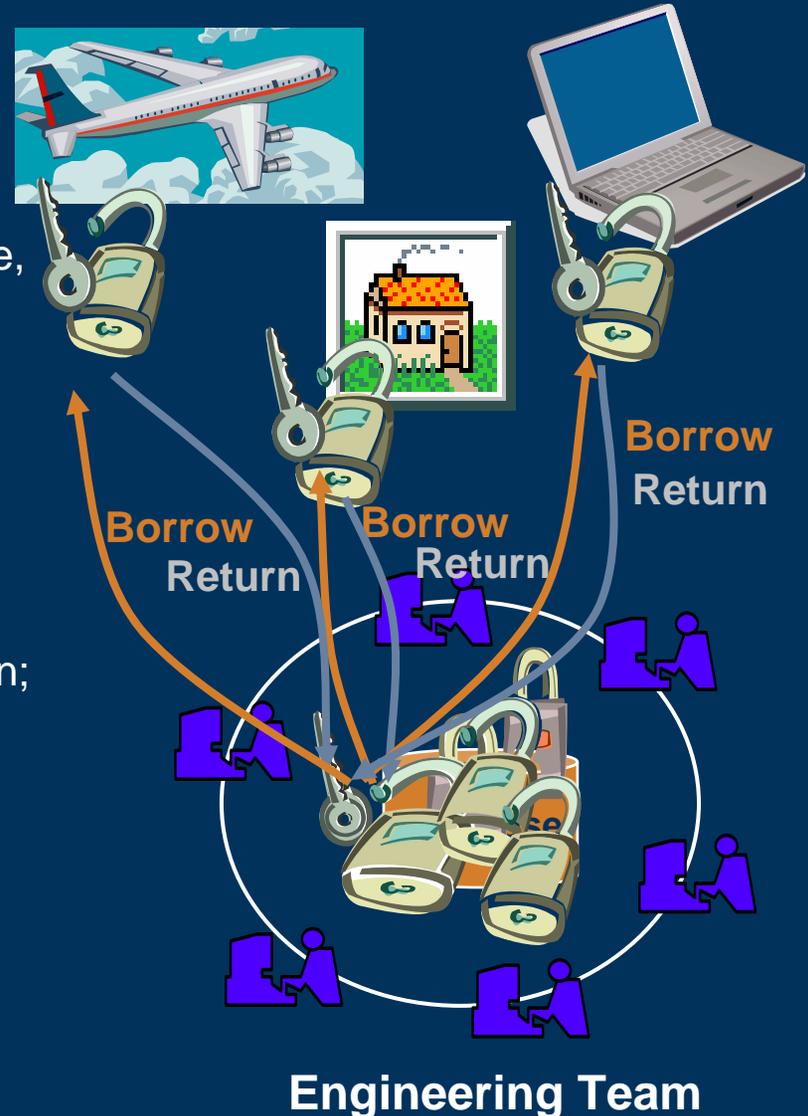
Below the dialog box, a large 3D model of a bicycle rack is visible, showing a perspective view of many bicycles arranged in rows. The bicycles are colored in red, white, and blue. The background is a solid blue color. The dialog box has 'OK', 'Apply', 'Reset', and 'Cancel' buttons at the bottom.



# License Borrowing



- ▶ License Borrowing
  - ▶ “Borrow” and “Return” licenses from server and use licenses locally
  - ▶ Local use includes travel, on-site service, and home use scenarios
  - ▶ Windows clients only, any server
- ▶ NX Borrow Tool
  - ▶ Permits borrowing license selection and duration
  - ▶ Duration is maximum of 3 months
  - ▶ Eventually will permit early license return; early return has limitations today
- ▶ Borrowing is an optional product
  - ▶ Orderable product, NX21001, with no license charge
  - ▶ Same for NX and I-deas NX Series
  - ▶ New for NX 4.0.1 and I-deas 12 M1
  - ▶ Replaces I-deas Take Home A200





# UGS Product Matrix: I-deas 12 NX Series



- ▶ NX Gateway for Interoperability
  - ▶ NX 4 and I-deas 12 M1 NX Series
- ▶ Teamcenter Engineering 9.1.3.2
  - ▶ NX Manager I-deas 4.2
- ▶ Teamcenter Engineering 2005 SR1
  - ▶ Integration for I-deas 2005 SR1
- ▶ Teamcenter Enterprise 2005 (5.0)
  - ▶ Teamcenter Enterprise 2005 MP2 integrates with I-deas 12 M1 using IMI
  - ▶ Teamcenter Enterprise 2005 SR1 integrates with I-deas 12 M1 using Rich Client
  - ▶ I-deas Enterprise 2005 MP2 integrates with I-deas 12 M1



# I-deas 13 NX Series



- ▶ I-deas 13 NX Series
  - ▶ Target Release Date is Q2 2007
- ▶ Themes
  - ▶ Customer Workflow Productivity
  - ▶ Maintain High I-deas Quality
  - ▶ Multi-CAD (JT Open)
  - ▶ Moving I-deas Customers Forward on the NX Roadmap



# I-deas NX Series and SGI IRIX



- ▶ I-deas 12 Mx releases will continue to be provided on the currently supported environments
  - ▶ HP, IBM, Sun, SGI, Windows 2000 and XP
- ▶ I-deas customer deployments on SGI IRIX have declined significantly over the past few years
  - ▶ UGS has decided to withdraw support for SGI IRIX starting with the I-deas 13 release
  - ▶ UGS GTAC will continue to support I-deas 12 on SGI IRIX through December 2008
  - ▶ UGS will provide maintenance updates to I-deas 12 on SGI IRIX through June 2007



# CPDA Perspective: I-deas 12 NX Series and I-deas to NX Roadmap



*“With the release of I-deas 12 NX Series closely following the NX 4 announcement, UGS continues its relentless goal of evolving the best attributes of these two flagship products into a single, rich solution for digital product development. They have taken a very realistic and methodical approach to this massive endeavor while continuing to meet the needs of its diverse customer base. UGS shows a unique strength in this area, as I know of no other company in its industry that has achieved such success.”*



Ken Versprille  
Partner, PLM Research Director  
Collaborative Product Development Associates, LLC  
(CPDA)



# Progressing on NX Roadmap



- ▶ Initial Audit of Your I-deas Data
  - ▶ Introduced at PLM World 2004
  - ▶ Over 175 Customers have been Audited; Very Positive Feedback
- ▶ TDM to Teamcenter
  - ▶ Over 30 Customers in Process of Teamcenter Engineering Deployments
  - ▶ ~70% of I-deas Seats Data Managed by Teamcenter
- ▶ I-deas CAM to NX CAM
  - ▶ Over 75 Customers Participated in License Exchange
- ▶ I-deas to NX Data Migration Workshop
  - ▶ During this PLM World conference



[www.ugs.com](http://www.ugs.com)