I-deas to NX: Tools Update

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I-deas to NX Migration Tools

- I-deas Customers with Active ME&S Receive I-deas to NX Migration Tools Without License or ME&S Charge
- Migration Tools
  - Open I-deas Migration Tool
  - I-deas Program File Migration Tool
  - miadmin Utility
  - Migration Wizard
  - Content Migration Manager

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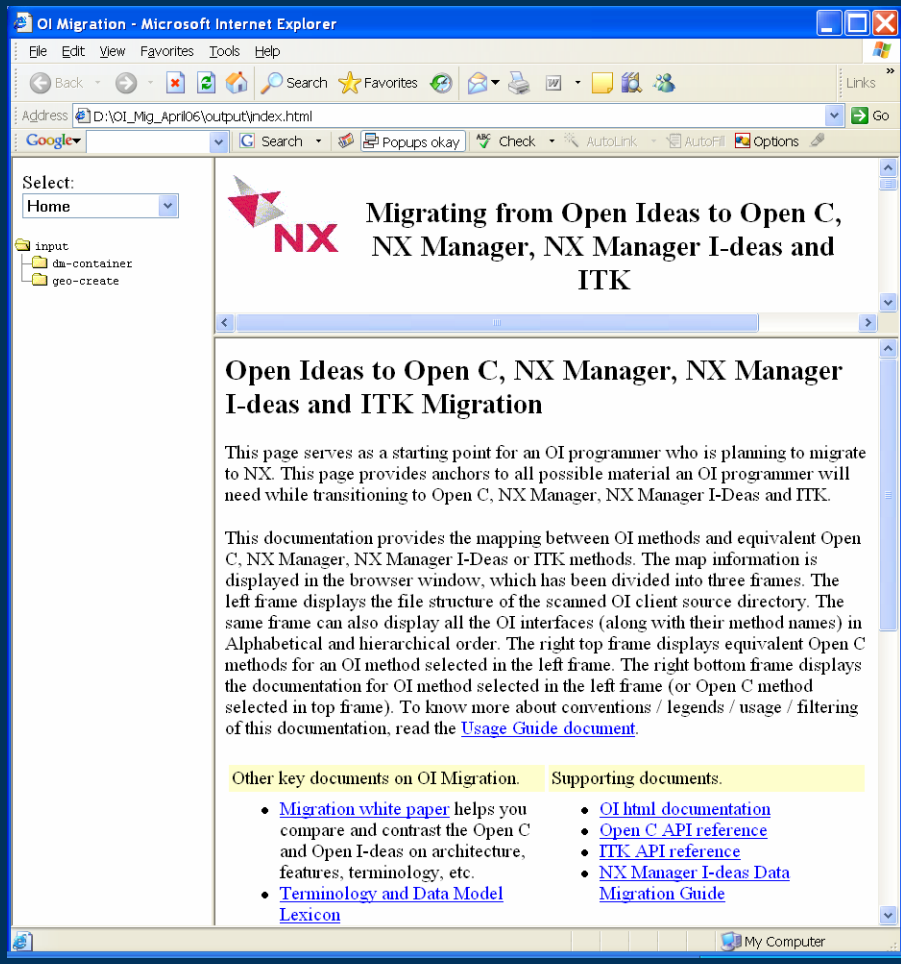
Open I-deas Migration Tool

- Tool for Auditing Open I-deas Program Code
  - Maps Open I-deas API Calls to Open C and NX Open Calls
  - Maps Open I-deas TDM Methods to NX Manager, NX Manager I-deas, and Teamcenter Engineering ITK Calls
- Basis for Quantifying Customizations, Developing Cost Estimates, and Defining Technical Plan for NX Customization
  - Based on Existing I-deas Customizations Used by a Particular Customer



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Open I-deas Migration Tool Capabilities

- Aids in Developing Cost Estimates and Technical Plans for Moving Customizations to NX
  - Analyzes Your Usage of Open I-deas API's in Your Custom OI Applications
  - Provides Statistical Information on Your Usage of the OI APIs
  - Accelerates the OI Programmer Learning Curve to NX Open
  - Presents the NX Open Documentation in the Context of Your Existing OI Programs
  - Tool does not Automatically Create an NX Version of Your Program
- Technical Characteristics
  - Lightweight Standalone Utility does not Require an I-deas or NX Installation
  - Works with Java and / or C++ based OI source

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Open I-deas Migration Tool Availability

- Tool is available on I-deas NX Series CD's, beginning with I-deas 11 NX Series
  - $SDRC_INSTL/oimig/Readme.pdf
  - $SDRC_INSTL/oimig/oimig_download.zip

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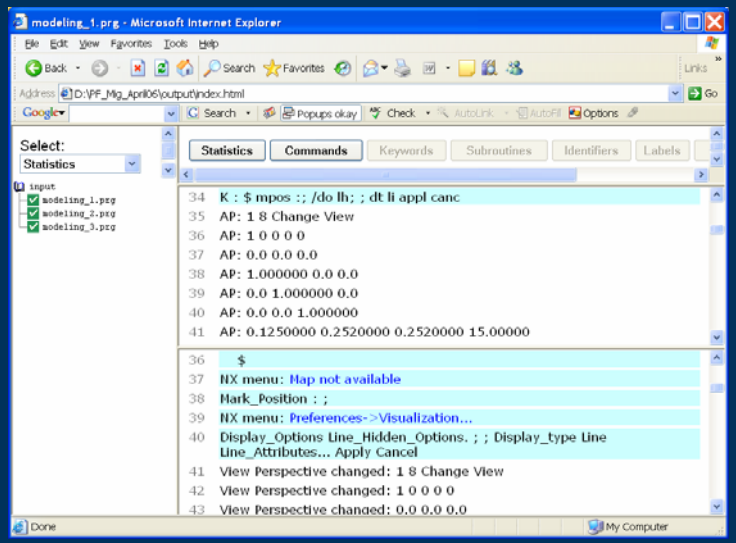
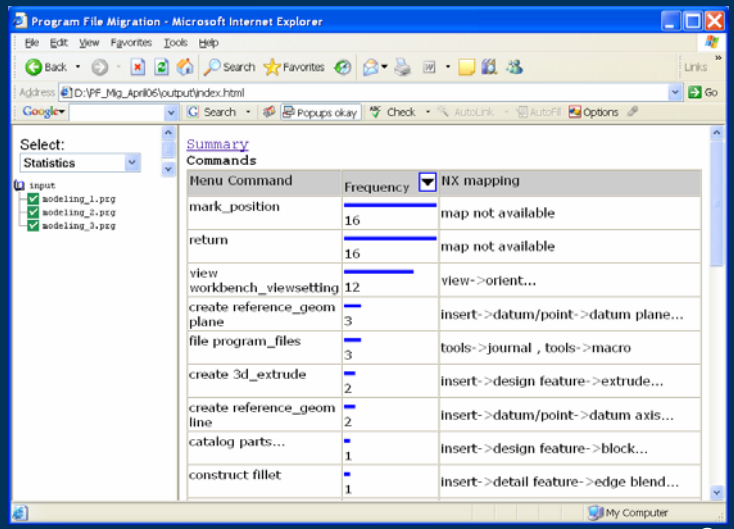
I-deas Program File Migration Tool

- I-deas Program File Migration Tool
  - Analysis of Existing I-deas Program Files
  - Reports Statistics on Functional / Command Usage
  - Expands Minimum Character Mnemonic Shorthand To Readable English
  - Provides Mapping to NX Journaling
- Basis for Quantifying Customizations, Developing Cost Estimates, and Defining Technical Plan for NX Customization
  - Based on Existing I-deas Customizations Used by a Particular Customer





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I-deas Program File Migration Tool Capabilities

- Aids in Developing Cost Estimates and Technical Plans for Moving Your Program Files to NX
  - Expands command mnemonics to increase readability
  - Expands programming constructs (e.g. – if-then-else) into a more readable format
  - Provides Statistical Information on the Use of I-deas Commands and Programmability Constructs within Your I-deas Program Files
  - Tool does not Automatically Create an NX Version of Your Program File
- Technical Characteristics
  - Lightweight Standalone Utility does not Require an I-deas or NX Installation

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I-deas Program File Migration Tool Availability

- Tool is available on the I-deas NX Series CD's, beginning with I-deas 11m3 NX Series
  - $SDRC_INSTL/pfmig/Readme.pdf
  - $SDRC_INSTL/pfmig/pfm_download_id11m3.zip
  - $SDRC_INSTL/pfmig/pfm_download_id12m2.zip

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NX Journaling

- NX Journaling
  - Next Generation Program File Capability
  - New Capability Introduced in NX3
  - Independent of User Interface
  - Journal with VB.Net, an Industry Standard Language
  - Journaling Supports Calling NX Open Functions to Handle any Missing Journaling Coverage
- I-deas Program File Migration to NX Considerations
  - Recommendation that I-deas Program Files are Migrated to NX Journaling
  - Program Files can optionally be migrated into NX Wizards or NX Open if NX Journaling Coverage is an Issue

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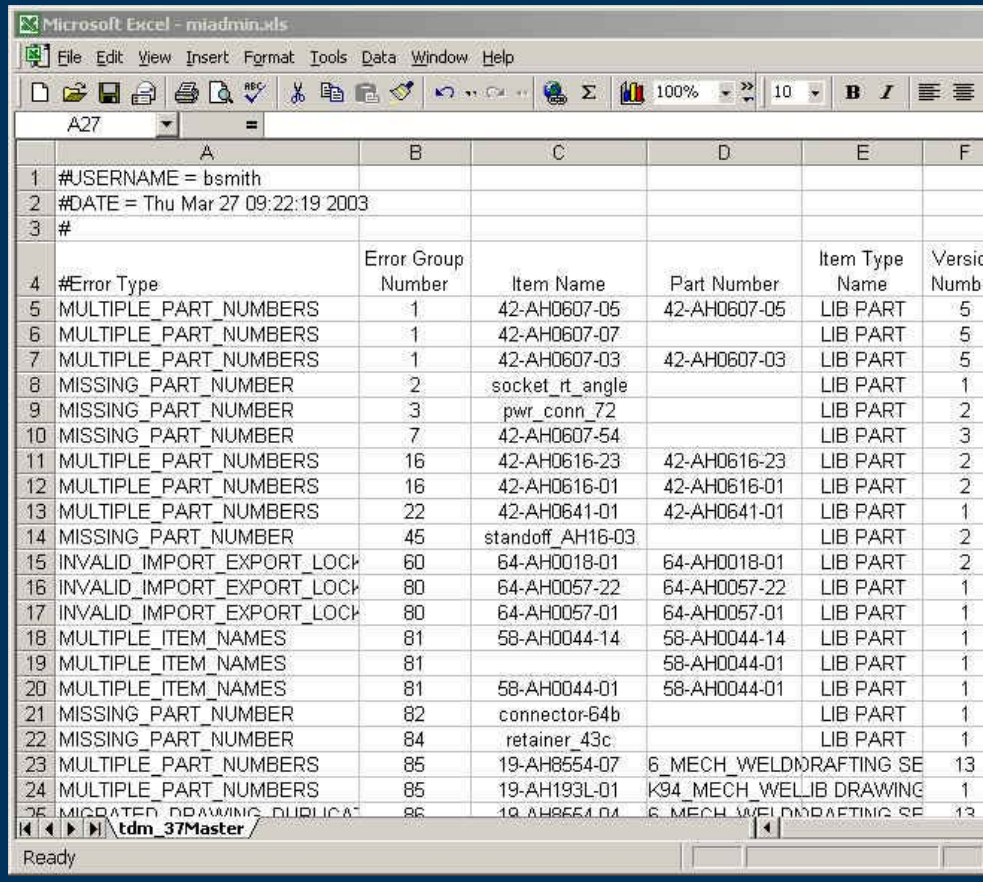
I-deas miadmin Utility

- miadmin = metadata integrity administration
  - Tool for I-deas Administrators to Maintain TDM Metadata
  - Clean and Correct I-deas Data in One TDM and/or Multiple TDM's
- Run prior to TDM Migration to Teamcenter Engineering or I-deas Release Upgrade
- Benefits
  - Prepares TDM Metadata for Migration to Teamcenter
  - Errors can be Corrected Efficiently
  - Simultaneously Analyze Data from Multiple TDMs
  - Runs Independent of I-deas



	A	B	C	D	E	F
1	#USERNAME = bsmith					
2	#DATE = Thu Mar 27 09:22:19 2003					
3	#					
4	#Error Type	Error Group Number	Item Name	Part Number	Item Type Name	Versio Numb
5	MULTIPLE_PART_NUMBERS	1	42-AH0607-05	42-AH0607-05	LIB PART	5
6	MULTIPLE_PART_NUMBERS	1	42-AH0607-07		LIB PART	5
7	MULTIPLE_PART_NUMBERS	1	42-AH0607-03	42-AH0607-03	LIB PART	5
8	MISSING_PART_NUMBER	2	socket_rt_angle		LIB PART	1
9	MISSING_PART_NUMBER	3	pwr_conn_72		LIB PART	2
10	MISSING_PART_NUMBER	7	42-AH0607-54		LIB PART	3
11	MULTIPLE_PART_NUMBERS	16	42-AH0616-23	42-AH0616-23	LIB PART	2
12	MULTIPLE_PART_NUMBERS	16	42-AH0616-01	42-AH0616-01	LIB PART	2
13	MULTIPLE_PART_NUMBERS	22	42-AH0641-01	42-AH0641-01	LIB PART	1
14	MISSING_PART_NUMBER	45	standoff_AH16-03		LIB PART	2
15	INVALID_IMPORT_EXPORT_LOCK	60	64-AH0018-01	64-AH0018-01	LIB PART	2
16	INVALID_IMPORT_EXPORT_LOCK	80	64-AH0057-22	64-AH0057-22	LIB PART	1
17	INVALID_IMPORT_EXPORT_LOCK	80	64-AH0057-01	64-AH0057-01	LIB PART	1
18	MULTIPLE_ITEM_NAMES	81	58-AH0044-14	58-AH0044-14	LIB PART	1
19	MULTIPLE_ITEM_NAMES	81		58-AH0044-01	LIB PART	1
20	MULTIPLE_ITEM_NAMES	81	58-AH0044-01	58-AH0044-01	LIB PART	1
21	MISSING_PART_NUMBER	82	connector-64b		LIB PART	1
22	MISSING_PART_NUMBER	84	retainer_43c		LIB PART	1
23	MULTIPLE_PART_NUMBERS	85	19-AH8554-07	6_MECH_WELDN	DRAFTING SE	13
24	MULTIPLE_PART_NUMBERS	85	19-AH193L-01	K94_MECH_WEL	LIB DRAWING	1
25	MIGRATED_DRAWING_DUPLICAT	86	19-AH8554-04	6_MECH_WELDN	DRAFTING SE	13

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miadmin – Scan, Analyze, Update

- Operates in 3 Modes
  - Scan – extracts key metadata from I-deas projects
  - Analyze – investigates metadata for various errors
  - Update – makes corrections to original metadata
- Uses Microsoft Excel to view errors and edit data
- Miadmin Results and Cleanup Next Steps are detailed in the Audit Report

```
Command Prompt
Analyzing these installations:
   D:\UGS_Audit\<Name>_1.nsf
   D:\UGS_Audit\<Name>_2.nsf
   D:\UGS_Audit\<Name>_3.nsf
   D:\UGS_Audit\<Name>_4.nsf
   D:\UGS_Audit\<Name>_5.nsf
   D:\UGS_Audit\<Name>_6.nsf
Analysis Summary:
      62 DUPLICATE_VERSION_NUMBER errors found
      45 MISSING_ITEM_NAME errors found
     874 MULTIPLE_ITEM_NAMES errors found
   61656 MISSING_PART_NUMBER errors found
    1209 MULTIPLE_PART_NUMBERS errors found
    1724 INVALID_IMPORT_EXPORT_LOCK_STATUS errors found
      48 MIGRATED_DRAWING_DUPLICATE_VERSION_NUMBER errors found
     795 INVALID_COPY_OF_MIGRATED_DRAWING errors found
      26 MULTIPLE_MIGRATED_DRAWINGS errors found
    9259 DUPLICATE_PART_NUMBER errors found
     510 BAD_MIGRATED_DRAWING_RELATIONSHIP errors found
     192 INVALID_MIGRATED_DRAWING_ATTRIBUTE errors found
   13188 DUPLICATE_ITEM_NAME errors found
      59 INVALID_CHARACTERS_IN_ITEM_NAME errors found
   10839 ITEM_NAME_TOO_LONG errors found
     284 PART_NUMBER_TOO_LONG errors found
      16 BAD_HIERARCHY_RELATIONSHIP errors found

Analysis complete ... see  <Name>.nse

D:\UGS_Audit>
```

Example miadmin Run

- The two items ITEM_NAME_TOO_LONG and PART_NUMBER_TOO_LONG are current limitations is Teamcenter Engineering. Many users work around this limitation by storing the TDM item names and part numbers in a separate attribute field. We recommend changing the data in TDM prior to migration to Teamcenter Engineering.
- The MISSING_PART_NUMBER, MULTIPLE_PART_NUMBERS, and DUPLICATE_PART_NUMBER errors must all be fixed, and could take time because of the large number of these. Missing part numbers can be auto assigned during migration or with miadmin if that is appropriate, but that would be dependent on <Company name> processes. We understand that there is a large amount of older data that may not need to be migrated to Teamcenter and could just be archived. The miadmin dump (Option 0) and the feature tool results will tell you when each part, drawing and assembly was created and last modified.
- The MULTIPLE_ITEM_NAMES and DUPLICATE_ITEM_NAME errors are not as important to fix, since Teamcenter goes off of part number rather than item name. <Company name> can decide whether or not they want to address these errors.
- The BAD_MIGRATED_DRAWING_RELATIONSHIP and INVALID_MIGRATED_DRAWING_ATTRIBUTE errors can usually be automatically fixed by an miadmin update. We recommend doing this on your TDM's as soon as possible.

Example of Identified Errors

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miadmin Best Practices

- miadmin creates a large amount of data. You must understand its recommended actions before accepting and updating your TDM.
- Backup your TDM's .imd and .pmd files before you begin. You can validate changes on a copy of your TDM installation before moving to your production TDM. You only need to copy the .imd and .pmd files.
- Work with individual TDMs first and resolve the issues within each TDM before working on combined TDM analysis and update. (You can analyze all your TDMs first to get a scope of the work to be done, but always start updates based on a single TDM before updating combined TDMs.)
- Resolve migrated drawing errors first. Resolving these can resolve other errors, too.
- Review the best practices section in the latest miadmin documentation before you begin.

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miadmin Availability

- Tool is available in I-deas 10 NX Series, I-deas 11 NX Series, and I-deas 12 NX Series installations
  - $SDRC_INSTL\readme\miadmin_User_Guide.txt
  - $SDRC_INSTL\prl\miadmin.cmd
- Download the latest version of miadmin for your specific I-deas version in order to get the latest enhancements
- miadmin updates can be downloaded from http://ftp.ugs.com/
  - For I-deas 10, download the miadmin update at http://ftp.ugs.com/i-deas/I10/patch/miadmin_dmadmin/
  - For I-deas 11, download the miadmin update at http://ftp.ugs.com/i-deas/I11/patch/miadmin_dmadmin/
  - For I-deas 12, download the miadmin update at http://ftp.ugs.com/i-deas/I12/patch/miadmin_dmadmin/

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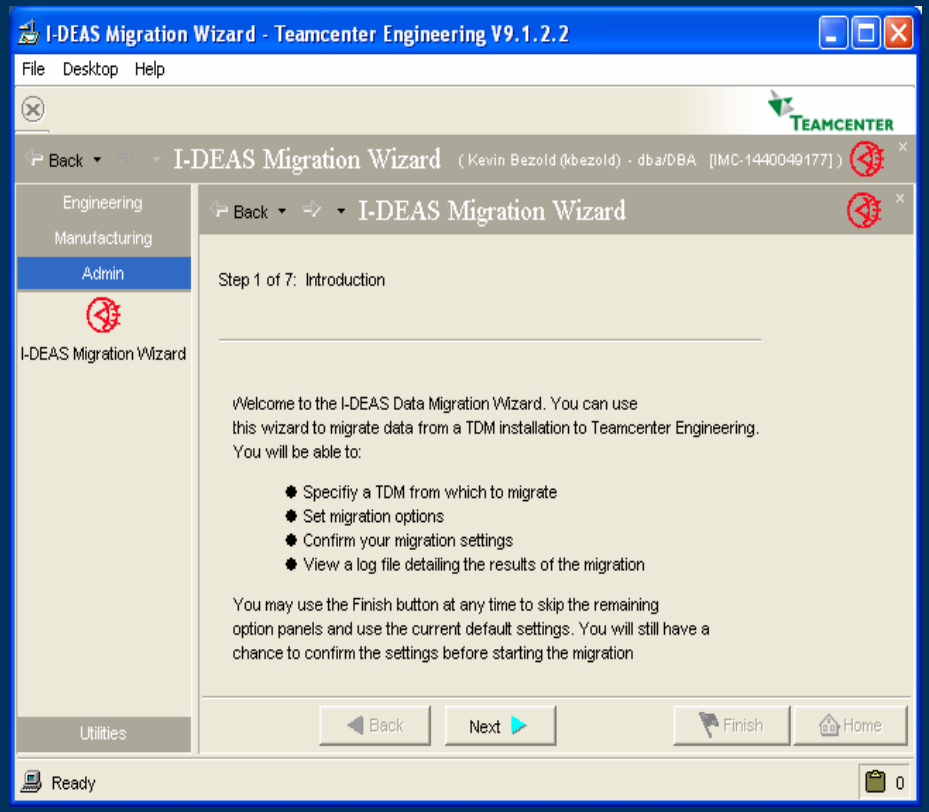
Migration Wizard

- Migrate the I-deas metadata from TDM(s) to Teamcenter Engineering
  - Information within the installation metadata file (*.imd) and the project metadata files (*.pmd) files converted to Teamcenter Engineering format
- I-deas Part, Assembly and Drawing files are transferred without modification from TDM to Teamcenter Engineering



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Content Migration Manager

Migration Modes

- Interactive User Interface
- Command Line/Bulk Tools

Select Data for Migration

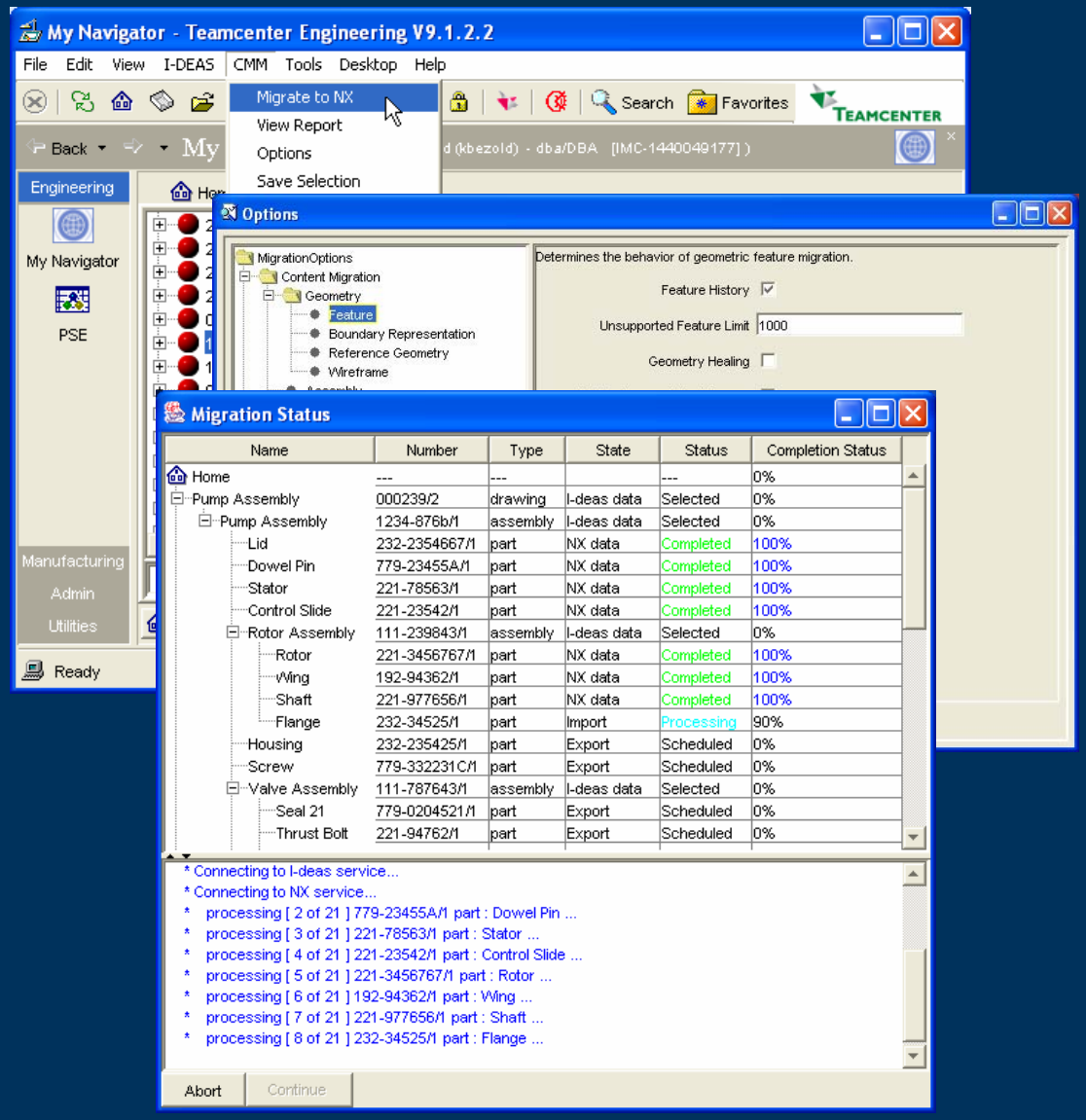
- User may select Items, Item/Revisions or Folders
- CMM resolves Dependencies

Configure Migration

- User may Configure the Migration Operation
- Style of Migration (eg. Brep vs features)
- Success Criteria
- Level of Checking

Migration Reporting

- Pre-Migration Report
- In-Migration Status (dashboard)
- Post-Migration Summaries
- Item Migration Reports



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I-deas to NX Migration Tools Summary

- UGS Migration Tools
  - Open I-deas Migration Tool
    - The Tool for Auditing and Migrating Open I-deas Programs
  - I-deas Program File Migration Tool
    - The Tool for Auditing and Migrating I-deas Program Files
  - miadmin Utility
    - Use to Prepare TDM Data for Migration to Teamcenter
    - All I-deas Administrators should use miadmin regularly
  - Migration Wizard
    - Migrates I-deas Metadata from TDM(s) to Teamcenter Engineering
  - Content Migration Manager (CMM)
    - Migrates I-deas Part, Assembly, and Drawing Data to NX
- I-deas Customers with Active ME&S Receive I-deas to NX Migration Tools without License or ME&S Charge
- Only UGS Provides the Breadth and Depth of Migration Tools Necessary to Successful Move I-deas Customers Forward to Product Lifecycle Management

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