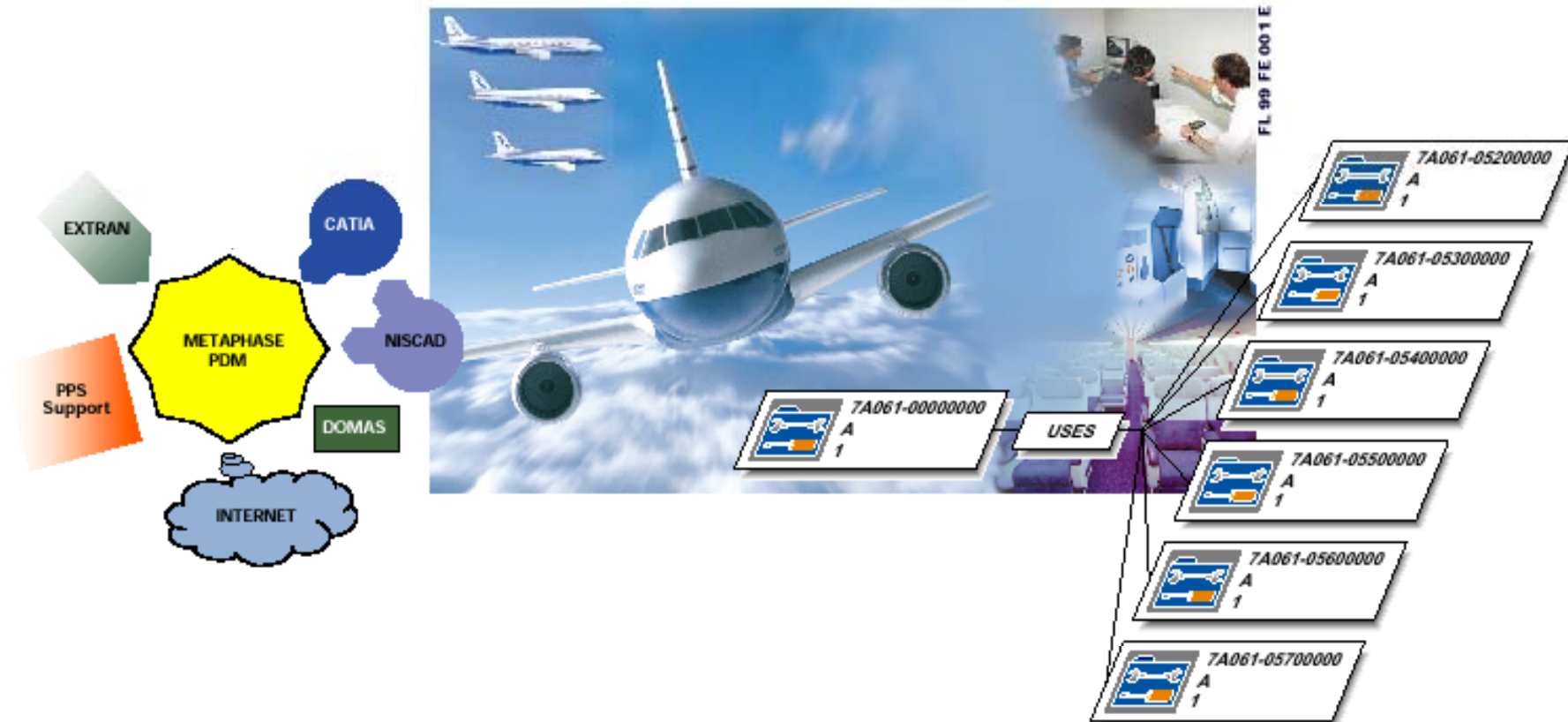
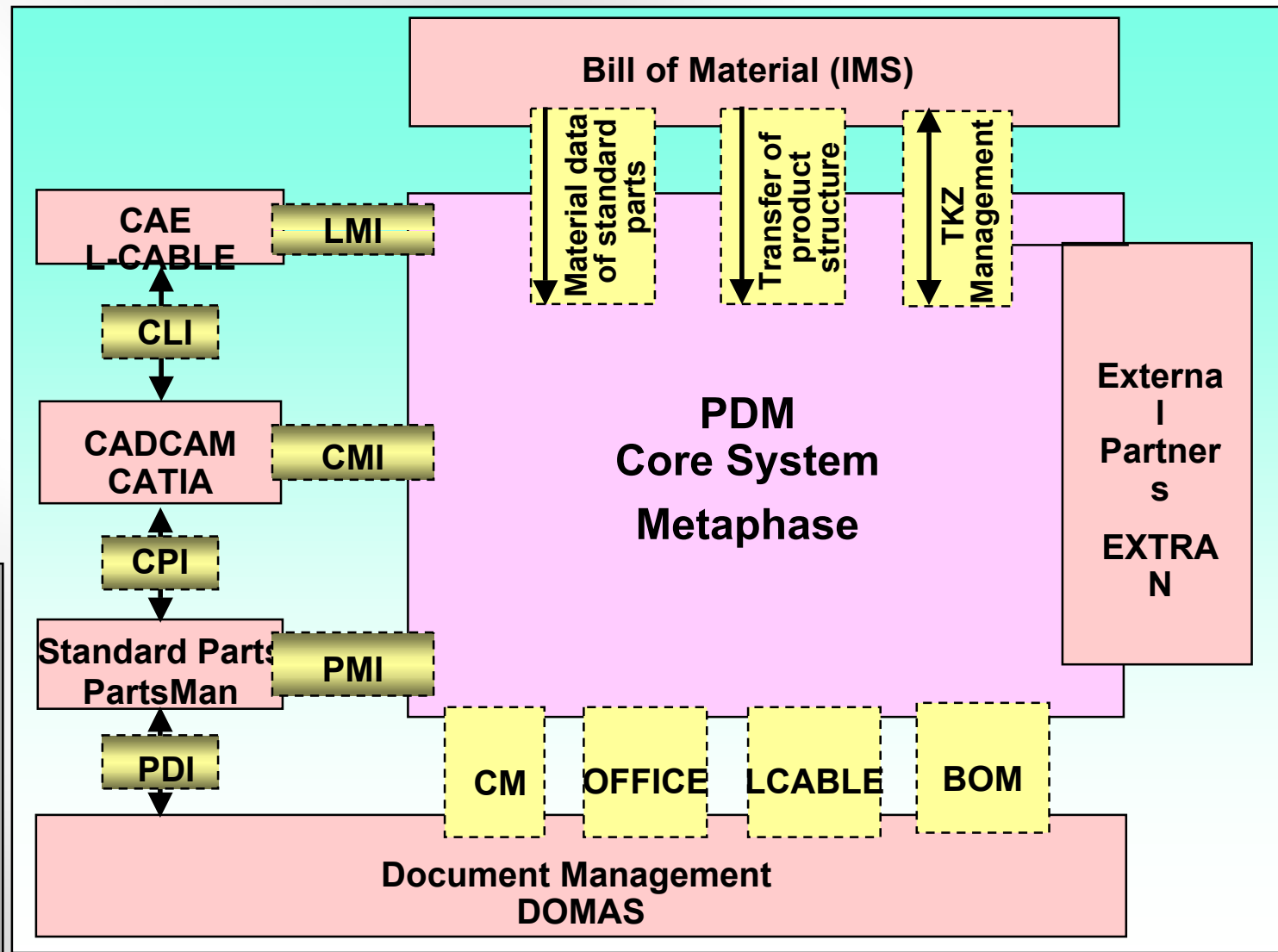


NIS/PartsMan PDM - Integration at Fairchild / Dornier



CMI - NIS/PartsMan Integration

PDM Architecture



LMI:
L-CABLE-Metaphase-Interface
CMI:
CATIA-Metaphase Interface
PMI:
PartsMan-Metaphase Interface
CLI:
CATIA-L-CABLE-Interface
CPI:
CATIA-PartsMan-Interface
PDI:
PartsMan-DOMAS-Interface

CMI - NIS/PartsMan Integration

Scope and Objectives

Scope

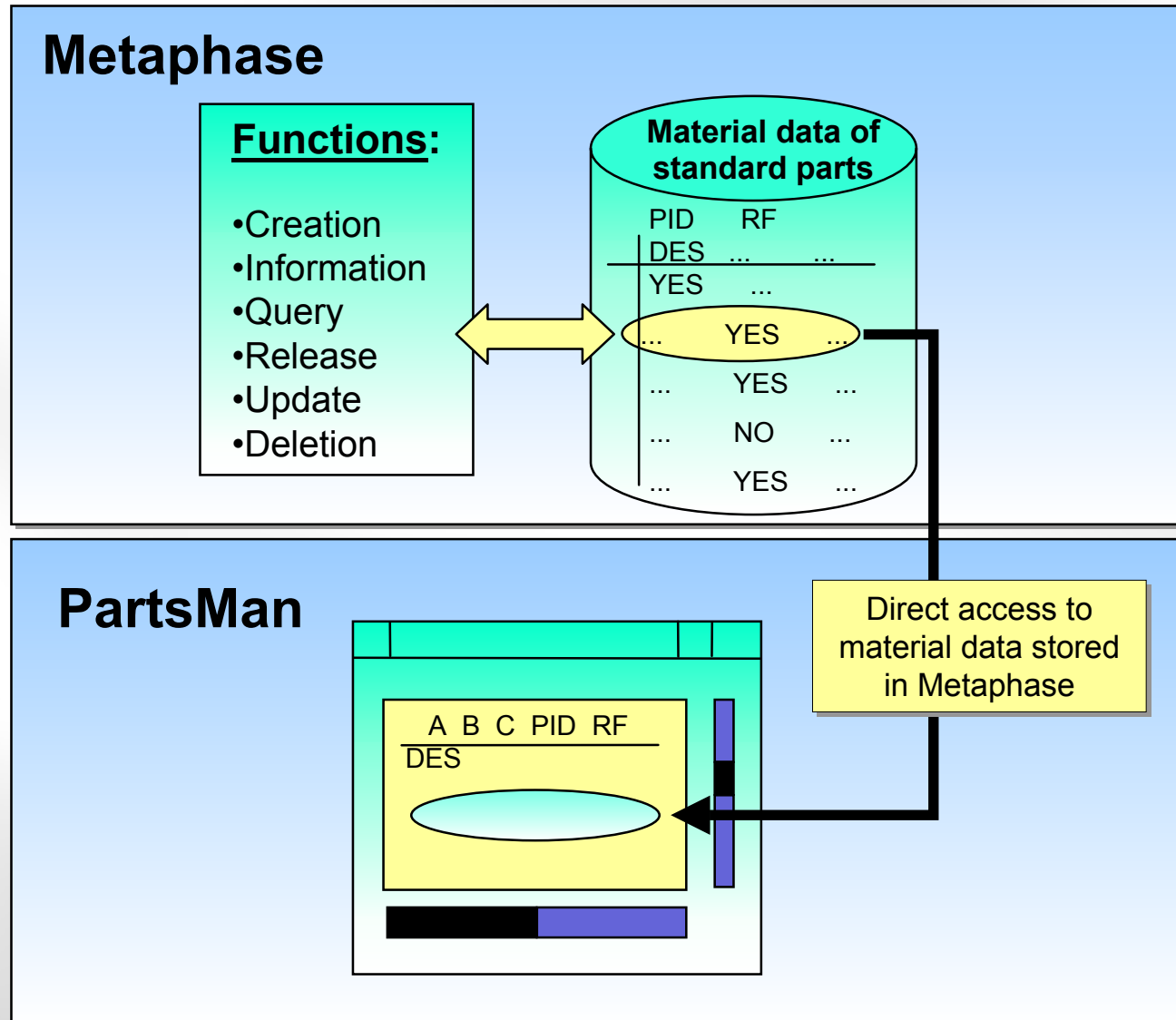
Tight co-operation for integration of standard parts between NIS/PartsMan and Metaphase/CMI

Objectives

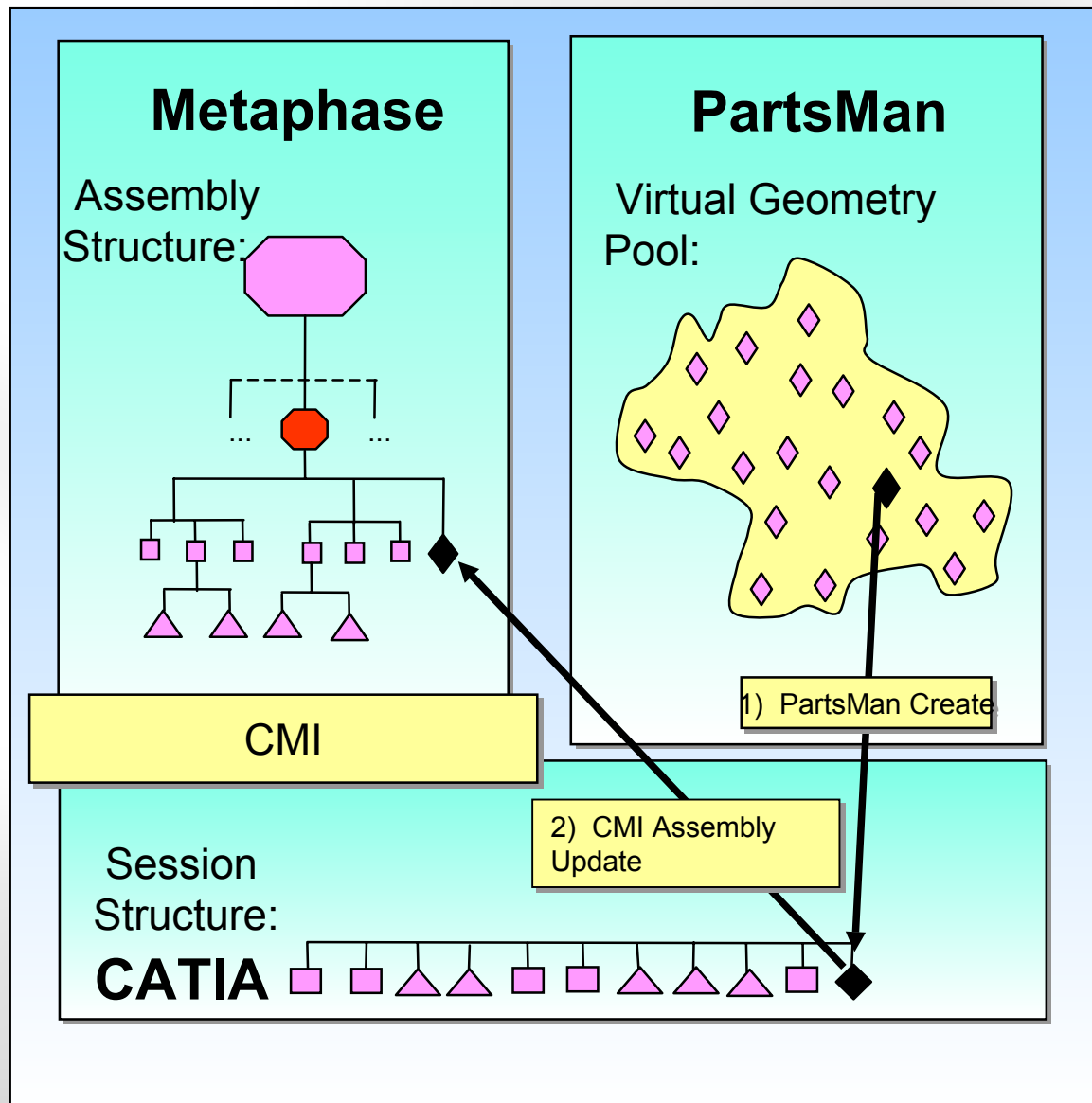
- Handling of standard parts the same way as „usual“ parts in Metaphase/CMI
- PDM is Master of all used standard parts, PartsMan provides the pool of available standard parts
- Transparent allocation of PartsMan standard parts to hierarchical assembly structure in PDM
- Convenience and ease-of-use of handling standard parts

CMI - NIS/PartsMan Integration

Interface to Material Data



CMI - NIS/PartsMan Integration Geometry-Interface



CMI - NIS/PartsMan Integration

Facts of Solution at Fairchild Dornier

- Provision of standard part families based on valid external and corporate standards:
 - ▶ 260 families already available
 - ▶ more than 470.000 different parts
- Creation of standard parts geometry in CATIA models (Session)
- Storage of data in database with direct access to
 - ▶ geometric-related data in PartsMan and
 - ▶ material-related data in PDM
- PartsMan „obeys“ to the parts release flag status managed in PDM
- Management of material data (TKZ, designator, supplier, ...) in PDM: Creation, Update, Query, Info, Release and Deletion
- Automatic insertion of standard parts model into active assembly
- Universal expand/collapse feature for all standard parts of an assembly

CMI - NIS/PartsMan Integration

Introduction of NIS/ PartsMan

PDM Phase 1 (CATIA)

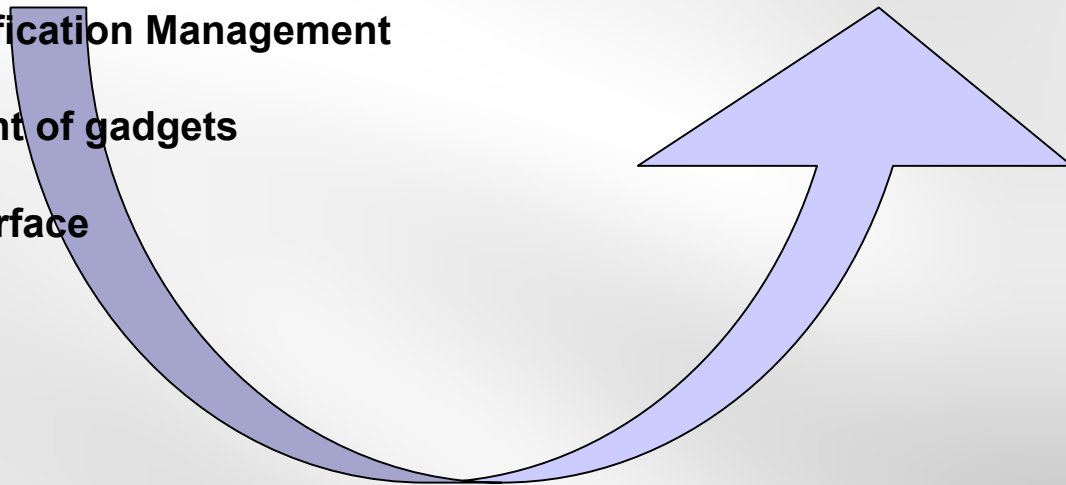
CATIA Introduction

- ▶ Project File
- ▶ Start Model

PDM Phase 2 (Engineering)

CATIA Model Management
Engineering Data Management

- ▶ Product structure
- ▶ Management of part versions
- ▶ Integration of standard parts
- ▶ Basic Modification Management
- ▶ BOM
- ▶ Management of gadgets
- ▶ Life Cycle
- ▶ Master-Interface

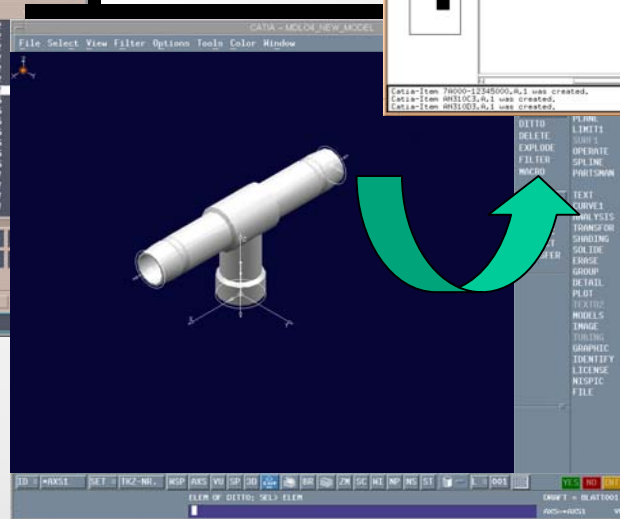
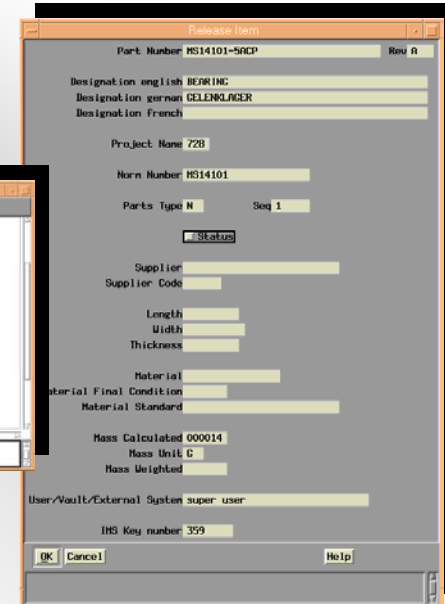
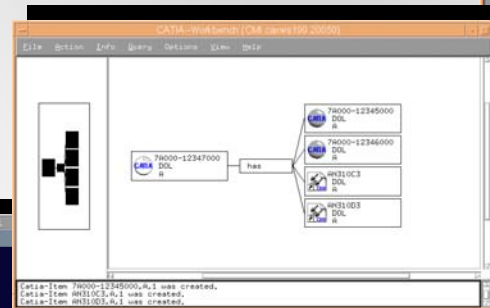
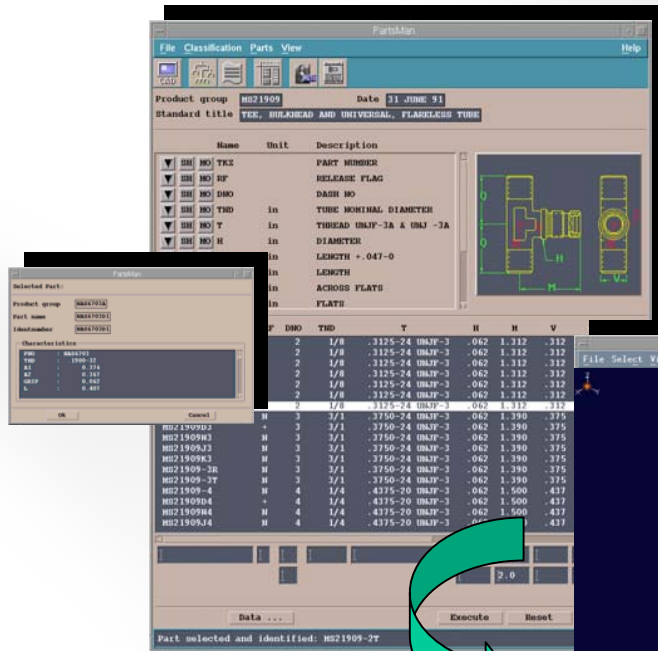


CMI - NIS/PartsMan Integration

Workflow NIS/ PartsMan - Catia-Metaphase

Selection of standard part in NIS/PartsMan

BOM of std. part

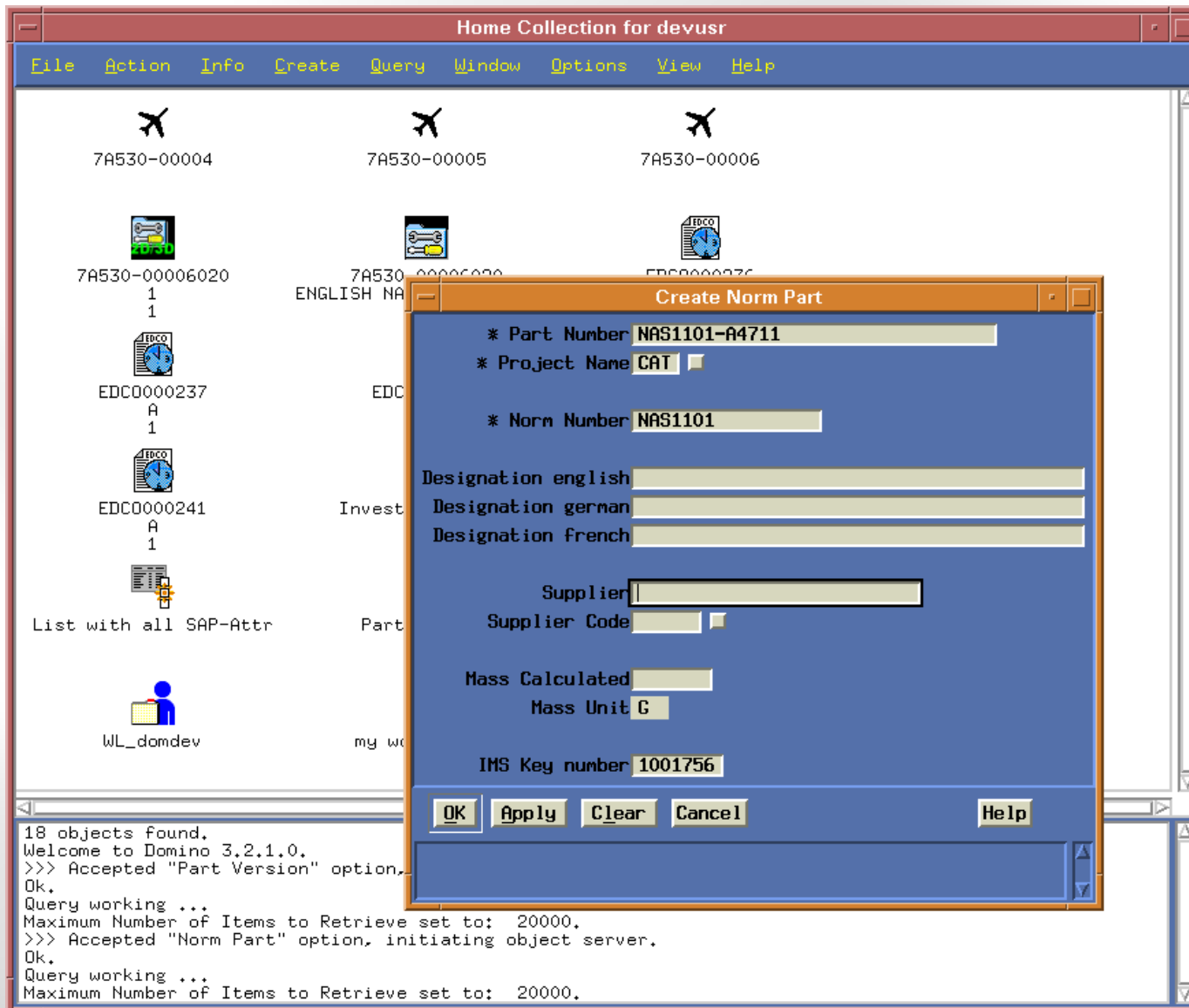


Introduction of std. part in CATIA workbench

Creation of 3D standard part geometry and insertion in assembly

CMI - NIS/PartsMan Integration

Create standard part object



CMI - NIS/PartsMan Integration

Browse information of standard part object

The screenshot displays the 'Norm Part Objects' application window. The main window contains a table with the following columns: Item Identifier, Class, Rev, Seq, Nomenclature, Standard Part?, Make/Buy, and Project Name. The table lists various part identifiers, all classified as 'Norm Part' with 'Rev' 'A' and 'Seq' '1'. The part 'NAS1101-04-3' is highlighted. An 'Item Info Norm Part' dialog box is open, showing detailed information for this part:

Field	Value
Part Number	NAS1101-04-3
Project Name	728
Seq	1
Norm Number	NAS1101
Designation english	SCREW
Designation german	SCHRAUBE
Designation french	
Supplier	
Supplier Code	
Mass Calculated	000001
Mass Unit	
IMS Key number	0595962
Status	True
User/Vault/External System	728 Norm Part Vault
Check Out User/Vault	
Created	05/03/1999 17:50:47:353
Creator	super user
Last Modified	05/03/1999 17:50:47:647
Last Modifier	super user

The dialog box also includes 'Close', 'Print...', and 'Help' buttons. The main window's status bar shows: 'Maximum Number of Items to Retrieve set Query Complete. Objects Found by the query: 65. >>> Accepted "Get Item Info" option, ini

CMI - NIS/PartsMan Integration

Release standard part object

The screenshot shows the 'Norm Part Objects' application window. The main window contains a table of part objects. The 'Release Item' dialog box is open, displaying the following information:

Item Identifier	Class	Rev	Seq	Nomenclature	Standard Part?	Make/Buy	Project Name
NAS1101-02-3	Norm Part	A	1	DOL	False	---	728
NAS1101-04-10	Norm Part	A	1	DOL	False	---	728
NAS1101-04-3	Norm Part	A	1	DOL	False	---	728
NAS1101-04-5	Norm Part	A	1	DOL	False	---	728
NAS1101-04-7	Norm Part	A	1	DOL	False	---	728
NAS1101-06-4	Norm Part	A	1	DOL	False	---	728
NAS1101-06-6	Norm Part	A	1	DOL	False	---	728
NAS1101-06-7	Norm Part	A	1	DOL	False	---	728
NAS1101-06-8	Norm Part	A	1	DOL	False	---	728
NAS1101-06H5	Norm Part	A	1	DOL	False	---	728
NAS1101-08-10	Norm Part	A	1	DOL	False	---	728
NAS1101-08-12	Norm Part	A	1	DOL	False	---	728
NAS1101-08-6	Norm Part	A	1	DOL	False	---	728
NAS1101-08-7	Norm Part	A	1	DOL	False	---	728
NAS1101-08-8	Norm Part	A	1	DOL	False	---	728
NAS1101-3-10	Norm Part	A	1	DOL	False	---	728
NAS1101-3-14	Norm Part	A	1	DOL	False	---	728
NAS1101-3-8	Norm Part	A	1	DOL	False	---	728
NAS1101-4-10	Norm Part	A	1	DOL	False	---	728
NAS1101-4-8	Norm Part	A	1	DOL	False	---	728
NAS1101E04-14P	Norm Part	A	1	DOL	False	---	728
NAS1101E04-3	Norm Part	A	1	DOL	False	---	728
NAS1101E04-4	Norm Part	A	1	DOL	False	---	728
NAS1101E04-5	Norm Part	A	1	DOL	False	---	728
NAS1101E04-7	Norm Part	A	1	DOL	False	---	728
NAS1101E04H5	Norm Part	A	1	DOL	False	---	728
NAS1101E04H6	Norm Part	A	1	DOL	False	---	728
NAS1101E06-3	Norm Part	A	1	DOL	False	---	728
NAS1101E06-4	Norm Part	A	1	DOL	False	---	728

The 'Release Item' dialog box contains the following fields and values:

- * Part Number: NAS1101-04-3
- * Project Name: 728
- Rev: A
- Seq: 1
- * Norm Number: NAS1101
- Designation english: SCREW
- Designation german: SCHRAUBE
- Designation french: (empty)
- Supplier: (empty)
- Supplier Code: (empty)
- IMS Key number: 0595962
- * Status: (checkbox)

The dialog box also has 'OK', 'Cancel', and 'Help' buttons. A red circle highlights the 'Status' checkbox.

At the bottom of the application window, the following text is displayed:

```

Maximum Number of Items to Retrieve set to: 20000.
Query Complete.
Objects found by the query: 65.
>>> Accepted "Get Item Info" option, initiating object server.
>>> Accepted "Is In Collection" option, initiating object server.
>>> Accepted "Release Item" option, initiating object server.
  
```

CMI - NIS/PartsMan Integration

Create attributes of standard part object

Home Collection for devusr

File Action Info Create Query Window Options View Help

Norm Part Objects

Item Identifier	Class	Rev	Seq	Nomenclature
FJG-4711-1	Norm Part	A	1	DOL

Update Norm Part

* Part Number FJG-4711-1

* Project Name 728

Rev A

Seq 1

* Norm Number FJG

Designation english E FJG

Designation german G FJG

Designation french F FJG

Supplier SAUERLAND

Supplier Code

Mass Calculated

Mass Unit G

User/Vault/External System devusr

IMS Key number 1001756

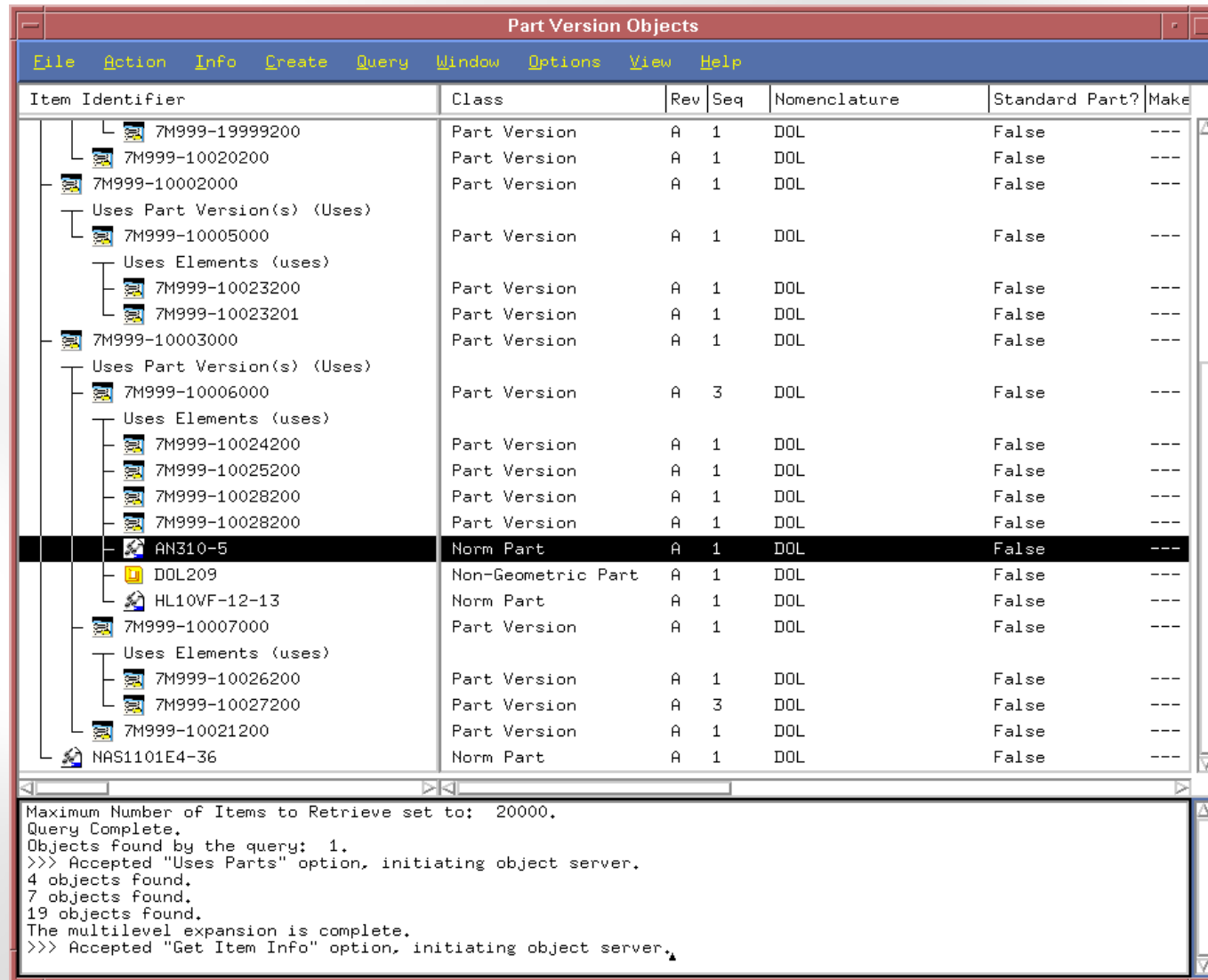
OK Cancel Help

Maximum Number of Items to Retrieve set to: 20000.

Identnr:
1001755
start reading xxxx:
1001755
IdentNr. was reset
>>> Accepted "Norm Part" option.
Ok.
Norm Part FJG-4711-1,E FJG,A,1 was created.
Query working ...
Maximum Number of Items to Retrieve set to: 20000.

CMI - NIS/PartsMan Integration

Insert standard part object in assembly



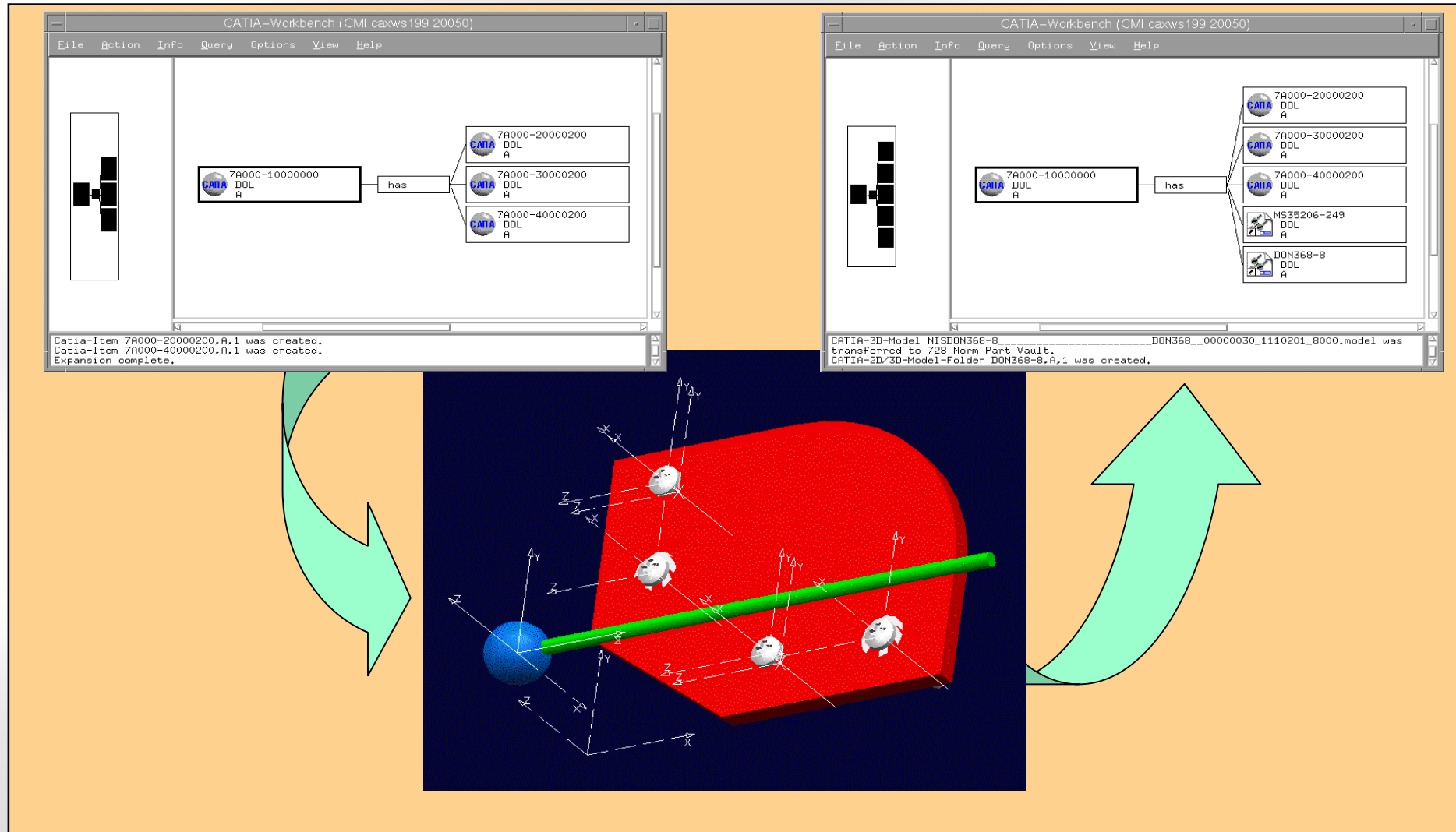
The screenshot displays the 'Part Version Objects' window, which is used for managing part versions in an assembly. The window features a menu bar with options: File, Action, Info, Create, Query, Window, Options, View, and Help. Below the menu bar is a tree view on the left and a table on the right. The table lists various part versions with columns for Item Identifier, Class, Rev, Seq, Nomenclature, Standard Part?, and Make. The row for 'AN310-5' is highlighted in black. Below the table, a status bar provides query results and actions taken.

Item Identifier	Class	Rev	Seq	Nomenclature	Standard Part?	Make
7M999-19999200	Part Version	A	1	DOL	False	---
7M999-10020200	Part Version	A	1	DOL	False	---
7M999-10002000	Part Version	A	1	DOL	False	---
Uses Part Version(s) (Uses)						
7M999-10005000	Part Version	A	1	DOL	False	---
Uses Elements (uses)						
7M999-10023200	Part Version	A	1	DOL	False	---
7M999-10023201	Part Version	A	1	DOL	False	---
7M999-10003000	Part Version	A	1	DOL	False	---
Uses Part Version(s) (Uses)						
7M999-10006000	Part Version	A	3	DOL	False	---
Uses Elements (uses)						
7M999-10024200	Part Version	A	1	DOL	False	---
7M999-10025200	Part Version	A	1	DOL	False	---
7M999-10028200	Part Version	A	1	DOL	False	---
7M999-10028200	Part Version	A	1	DOL	False	---
AN310-5	Norm Part	A	1	DOL	False	---
DOL209	Non-Geometric Part	A	1	DOL	False	---
HL10VF-12-13	Norm Part	A	1	DOL	False	---
7M999-10007000	Part Version	A	1	DOL	False	---
Uses Elements (uses)						
7M999-10026200	Part Version	A	1	DOL	False	---
7M999-10027200	Part Version	A	3	DOL	False	---
7M999-10021200	Part Version	A	1	DOL	False	---
NAS1101E4-36	Norm Part	A	1	DOL	False	---

Maximum Number of Items to Retrieve set to: 20000.
Query Complete.
Objects found by the query: 1.
>>> Accepted "Uses Parts" option, initiating object server.
4 objects found.
7 objects found.
19 objects found.
The multilevel expansion is complete.
>>> Accepted "Get Item Info" option, initiating object server.

CMI - NIS/PartsMan Integration

Integration of Standard Parts: Update



CMI - NIS/PartsMan Integration

Integration of Standard Parts: Product Structure

The image displays two overlapping windows titled "Part Version Objects". The left window shows a hierarchical tree view of parts. The right window shows a graphical assembly diagram where a central part (7A000-10000000) is connected to five sub-parts (7A000-20000200, 7A000-30000200, 7A000-40000200, DON368-8, and MS35206-249) via a "uses" relationship.

Item Identifier	Class	Rev	Seq	Designation	User/Vault/Ext	Status
7A000-10000000	Part Version	A	1	ASSEMBLY1	responsible1	---
Uses Parts (uses)						
7A000-20000200	Part Version	A	1	PART1	responsible1	---
7A000-30000200	Part Version	A	1	PART2	responsible1	---
7A000-40000200	Part Version	A	1	PART3	responsible1	---
DON368-8	Norm Part	A				
Is Described By Catia						
DON368-8	CATIA-2D/3D-M	A				
Attaches Catia-Mo						
NISDON368-8_...	CATIA-3D-Mode	---				
MS35206-249	Norm Part	A				
Is Described By Catia						
MS35206-249	CATIA-2D/3D-M	A				
Attaches Catia-Mo						
NISMS35206-249	CATIA-3D-Mode	---				

Log messages in the bottom-left window:
List View Column Preferences applied.
>>> Accepted "Uses Parts" option, initiating object server.
5 objects found.

Log messages in the bottom-right window:
>>> Accepted "Uses Parts" option, initiating object server.
5 objects found.
>>> Accepted "Change List View Columns" option, initiating object server.