

Siemens PLM Connection

Excel Live Integration in Teamcenter

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**Siemens
PLM Connection**



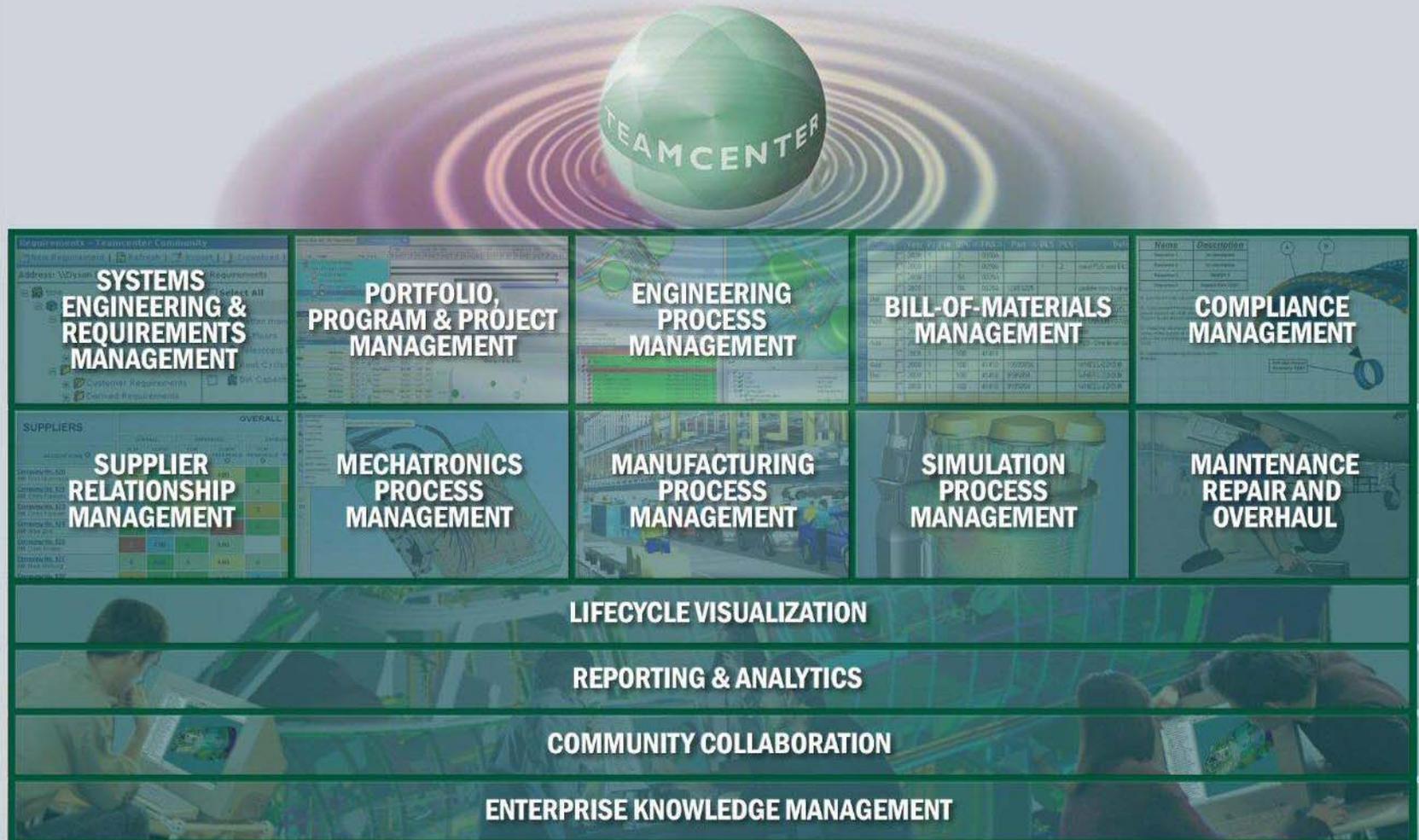
Americas 2008

PLM Software

Answers for industry.

SIEMENS

Teamcenter Digital Lifecycle Management Solutions



Systems Engineering & Requirements Management

Agenda

- Market Challenges
- Why Live Integration with Excel?
- Features Available in Teamcenter 2007.x
- Excel Templates in Teamcenter 8



Market Challenges

- PLM Systems capture complex information about product lifecycle
- They often need to display information about various objects and their properties in a simple and intuitive form
- Users often prefer tabular view where they can sort and filter data (like MS Excel)

Why “Live” Integration with Excel

- A good majority of data in a PLM System can be arranged in tabular form (eg. Product data and their structure, Manufacturing data and their processes, Properties on objects. etc..)
- MS Excel is one of the most widely used applications to manipulate Tabular data. Users analyze, sort, format data in Excel
- Many PLM Systems offer the ability to Export their data to MS Excel. But most do not offer a way to edit data directly from MS Excel
- However, when users change information in Excel, they are not reflected in the PLM System
- What we need is a “two way” communication between Excel and PLM System.

Excel Live features in Teamcenter 2007

- Export Teamcenter data to MS Excel “Live”
 - Data edited in Excel can be saved directly in Teamcenter
 - Data edited in Teamcenter can be sent to Excel

- Work “Off Line”
 - Save generated sheet to local disk
 - User can open the sheet later and edit the values “Off line”

- Direct connectivity from Excel to Teamcenter
 - Users can open the saved sheet and connect to directly to Teamcenter
 - Users can saved the date modified “Off Line”

Exporting Data from MyTeamcenter

The screenshot shows the Siemens My Teamcenter 2007 application interface. The 'Tools' menu is open, and the 'Export' option is selected, which has opened a sub-menu. In this sub-menu, the 'Objects to Excel' option is highlighted with a red oval. The main window displays a table titled 'Pen Assembly' with the following data:

Object	Type	Relation	Ow...	Gro...	Last Mo...	
simple ball ...	000067/A;1-Pen Assem...	ItemRevision	Revisions	Variar...	Engin...	13-May-2
	000067	Item Master	Item Mast...	Variar...	Engin...	13-May-2
	000067-view	view BOMView	BOM Views	Variar...	Engin...	13-May-2
	000068-Body	Item	References	Variar...	Engin...	13-May-2
	000069-Cap	Item	References	Variar...	Engin...	13-May-2
Ball Point Refill Changed	000070-Refill	Item	References	Variar...	Engin...	13-May-2
	000071-Spring	Item	References	Variar...	Engin...	13-May-2

The interface also shows a left-hand navigation pane with sections like 'Quick Links', 'Open Items', and 'History'. The status bar at the bottom indicates 'Ready'.

Export To Excel

My Teamcenter - Teamcenter 2007

File Edit View Tools Window Help

Search Folders

UGS Teamcenter

Back My Teamcenter (Variar, Santosh (variari) - Engineering/Designer [50426W/a])

Enter Item ID to Search

Quick Links: Home, My Worklist, My Projects, My Links, My Saved Searches

Open Items: Home

History

Getting Started My Teamcenter

Home

Folders: Home, Mailbox, Newstuff, 000067-Pen Assembly

000067/A;1-Pen Assembly

Object	Type	Relation	Ow...	Gro...	Last Modifie...	...	Release Statu
000067/A;1-Pen Assem...	ItemRevision	Revisions	Variar...	Engin...	13-May-2008 ...		
000067	Item Master	Item Mast...	Variar...	Engin...	13-May-2008 ...		
000068-Body	Item	References	Variar...	Engin...	13-May-2008 ...		
000069-Cap	Item	References	Variar...	Engin...	13-May-2008 ...		
000070-Refill	Item	References	Variar...	Engin...	13-May-2008 ...		
000071-Spring	Item	References	Variar...	Engin...	13-May-2008 ...		

Export To Excel

Object Selection

- Export Selected Objects
- Export All Objects in View

Output

- Static Snapshot
- Live integration with Excel

OK Cancel

Ready

Exported Sheet in Excel

The screenshot shows the Siemens Teamcenter 2007 interface. The main window displays a table of assembly data for the '000067-Pen Assembly'. An Excel window is overlaid, showing the same data as an exported spreadsheet.

Teamcenter Table:

Description	Object	Type	Relation	Owner	Group...	Last Modified ...
Assembly of a simple ball ...	000067/A;1-Pen Assem...	ItemRevision	Revisions	Variar...	Engin...	13-May-2008 ...
Plastic Body	000067	Item Master	Item Mast...	Variar...	Engin...	13-May-2008 ...
	000068-Body	Item	References	Variar...	Engin...	13-May-2008 ...

Excel Table:

A	B	C	D	E	F	G	H	
1	Home	Description	Object	Type	Owner	Group ID	Last Modified Date	Checke
2		Assembly of a simple ball pen	000067/A;1-Pen Assembly	ItemRevision	Variar, Santosh (variari)	Engineering	13-May-2008 03:59	
3			000067	Item Master	Variar, Santosh (variari)	Engineering	13-May-2008 03:59	
4		Plastic Body	000068-Body	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:00	
5		Metal Cap	000069-Cap	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:00	
6		Ball Point Refill	000070-Refill	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:00	
7			000071-Spring	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:01	

Users can edit properties from Excel

The screenshot shows the Siemens Teamcenter 2007 web interface. The main content area displays a table of assembly items for the '000067-Pen Assembly'. An Excel spreadsheet is overlaid on top, showing the same data in a tabular format. The Excel spreadsheet has columns for Description, Object, Type, Owner, Group ID, Last Modified Date, and Check. A tooltip is visible over the 'Object' column, indicating that the property is editable.

	A	B	C	D	E	F	G	H
	Home	Description	Object	Type	Owner	Group ID	Last Modified Date	Check
1		Assembly of a simple ball pen	000067/A;1-Pen Assembly	ItemRevision	Variar, Santosh (variari)	Engineering	13-May-2008 03:59	
2			000067	Item Master	Variar, Santosh (variari)	Engineering	13-May-2008 03:59	
3		Plastic Body	000068-Body	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:00	
4		Metal Cap	000069-Cap	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:00	
5		Ball Point Refill Changed	000070-Refill	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:07	
6			000071-Spring	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:01	

Tooltip text: Property: object_desc Editable: Yes

Users can edit List of Values, Date Properties ...

The screenshot displays the Siemens Teamcenter 2007 web client interface. The main window shows a 'Getting Started' page with a search bar and navigation links. A table titled 'REQ-000022-Pen-Requirements' is visible, listing items with columns for ReqStatus, Object, Type, Relation, Owner, Group, and Last Modified Date.

An Excel spreadsheet window is overlaid on the Teamcenter interface, showing a table with the following data:

A	B	C	D	E	F	G	H
1	Home	ReqStatus	Object	Type	Owner	Group ID	Last Modified Date
2			Property: ReqStatus	SVItem Revision	Variar, Santosh (variari)	Engineering	13-May-2008 04:24
3			ReqPending, ReqApproved, ReqRejected	SVItem Master	Variar, Santosh (variari)	Engineering	13-May-2008 04:24

The Excel spreadsheet also shows a dropdown menu for 'ReqStatus' with options: ReqPending, ReqApproved, and ReqRejected. A tooltip for cell B3 indicates: 'Property: ReqStatus Editable: Yes Single Choice: ReqPending, ReqApproved, ReqRejected'.

Export from Product Structure Editor

PSE - Teamcenter 2007

File Edit View Tools Window Debug Help

Back - PSE (Bapat,Sarang (bapat) - Engineering/Designer [IMC_482927369])

Getting Started My Teamcenter *PSE x

000356/A;1-Diff Assembly (view) - Latest Working - Date - "Now"

BOM Line	Quantity	Item Type	Rule configured by	Item Rev Status	Find No.
000356/A;1-Diff Assembly (view)		Item			
000357/A;1-Engine Parts Assembly (view)		Item	Working()		10
000362/A;1-Cylinder Block		Item	Working()		10
000363/A;1-Circlips x 3	3	Item	Working()		20
000364/A;1-Piston Pin		Item	Working()		30
000365/A;1-Connecting Rod		Item	Working()		40
000366/A;1-Crank Shaft		Item	Working()		50
000367/A;1-Big Ends		Item	Working()		60
000368/A;1-Ste					
000369/A;1-					
000370/A;1-					
000372/A;1-					
000373/A;1-					
000374/A;1-					
000375/A;1-					
000376/A;1-					
000358/A;1-Ste					
000377/A;1-					
000378/A;1-					
000379/A;1-					
000380/A;1-					
000381/A;1-					
000382/A;1-					
000383/A;1-					
000384/A;1-					
000385/A;1-					

tc_1211196075485.mhtml - Microsoft Excel

Home Insert Page Layout Formulas Data Review View Developer Add-Ins

Clipboard Font Alignment Number Cells Editing

	A	B	C	D	E	F	G
	Home	BOM Line	Quantity	Item Type	Rule configured by	Item Rev Status	Find No.
1	Home	BOM Line	Quantity	Item Type	Rule configured by	Item Rev Status	Find No.
2		000356/A;1-Diff Assembly (view)		Item			
3		000357/A;1-Engine Parts Assembly		Item	Working()		10
4		000362/A;1-Cylinder Block		Item	Working()		10
5		000363/A;1-Circlips x 3	3	Item	Working()		20
6		000364/A;1-Piston Pin		Item	Working()		30
7		000365/A;1-Connecting Rod		Item	Working()		40
8		000366/A;1-Crank Shaft		Item	Working()		50
9		000367/A;1-Big Ends		Item	Working()		60
10		000368/A;1-Ste		Item	Working()		70
11		000369/A;1-Oil Pump		Item	Working()		80
12		000370/A;1-Cam Followers Set		Item	Working()		90
13		000372/A;1-Rocker Set		Item	Working()		100
14		000373/A;1-Rocker Pin		Item	Working()		110
15		000374/A;1-Bush		Item	Working()		120
16		000375/A;1-Master Cylinder Bolt		Item	Working()		130

tc_483162ab00009708000051a5

Ready

Incident count: 2 (App=...
The last 50 calls happene...
On a customer WAN with...

Call time Call m...
T-1.383431075 ICCTP...
T-1.29264841 ICCTS...
T-1.205379471 TcSyst...

Users can Filter Exported Sheet

PSE - Teamcenter 2007

File Edit View Tools Window Debug Help

Back PSE (Bapat,Sarang (bapat) - Engineering/Designer [IMC-482927369])

Getting Started My Teamcenter *PSE

000356/A;1-Diff Assembly (view) - Latest Working - Date - "Now"

BOM Line

000356/A;1-Diff Assembly (view)

- 000357/A;1-Engine Parts Assembly (view)
 - 000362/A;1-Cylinder Block
 - 000363/A;1-Circlips x 3 (3)
 - 000364/A;1-Piston Pin
 - 000365/A;1-Connecting Rod
 - 000366/A;1-Crank Shaft
 - 000367/A;1-Big Ends
 - 000368/A;1-Cam Shaft
 - 000369/A;1-Oil Pump
 - 000370/A;1-Cam Followers Set
 - 000372/A;1-Rocker Set
 - 000373/A;1-Rocker Pin
 - 000374/A;1-Bush
 - 000375/A;1-Master Cylinder Bolt
- 000358/A;1-Steering Gear
- 000377/A;1-Engine Parts Assembly (view)
- 000378/A;1-Cylinder Block
- 000379/A;1-Circlips x 3
- 000380/A;1-Piston Pin
- 000381/A;1-Connecting Rod
- 000382/A;1-Crank Shaft
- 000383/A;1-Big Ends
- 000384/A;1-Cam Shaft
- 000385/A;1-Oil Pump

Home Insert Page Layout

Get External Data Refresh All Connections Properties Edit Links

Sort A to Z
Sort Z to A
Sort by Color
Clear Filter From "Item Type"
Filter by Color
Text Filters

(Select All)
 Item
 Part

OK Cancel

	A	B	Quant	Item Type	Rule configured by	Item Rev Status	Find
1	Hor	BOM Line					
2		000356/A;1-Diff Assembly (view)		Item			
3		000357/A;1-Engine Parts Assembly		Item	Working ()		10
4		000362/A;1-Cylinder Block		Item	Working ()		10
5		000363/A;1-Circlips x 3	3	Item	Working ()		20
6		000364/A;1-Piston Pin		Item	Working ()		30
7		000365/A;1-Connecting Rod		Item	Working ()		40
8		000366/A;1-Crank Shaft		Item	Working ()		50
9		000367/A;1-Big Ends		Item	Working ()		60
10		000368/A;1-Cam Shaft		Item	Working ()		70
11		000369/A;1-Oil Pump		Item	Working ()		80
12		000370/A;1-Cam Followers Set		Item	Working ()		90
13		000372/A;1-Rocker Set		Item	Working ()		100
14		000373/A;1-Rocker Pin		Item	Working ()		110
15		000374/A;1-Bush		Item	Working ()		120
16		000375/A;1-Master Cylinder Bolt		Item	Working ()		130

Communication Monitor

Incident count: 2 (App=...)
The last 50 calls happened
On a customer WAN with

Call time Call m

T-1.383431075 ICCTP
T-1.29264841 ICCTP

Excel Developer Add-Ins

Data Validation Group
Consolidate Ungroup
Remove Duplicates What-If Analysis Subtotal
Data Tools Outline

Getting Started My Teamcenter PSE Schedule Manager CAE SE Validation StructureMap Builder

Users can Filter Exported Sheet

The screenshot displays the Siemens Teamcenter 2007 software interface. The main window shows a BOM (Bill of Materials) tree for the assembly '000356/A;1-Diff Assembly (view)'. The tree is expanded to show sub-assemblies and parts. An Excel window is overlaid on the BOM, showing the exported data. The Excel window has the 'Filter' button in the 'Sort & Filter' group of the 'Data' tab selected. The Excel spreadsheet shows columns for BOM Line, Quantity, Item Type, Rule configured by, Item Rev Status, and Find ID. The data is filtered to show only 'Part' items.

BOM Line	Quantity	Item Type	Rule configured by	Item Rev Status	Find ID
000356/A;1-Diff Assembly (view)		Item			
000357/A;1-Engine Parts Assembly (view)		Item	Working()		10
000362/A;1-Cylinder Block		Item	Working()		10
000363/A;1-Circlips x 3	3	Item	Working()		20
000364/A;1-Piston Pin		Item	Working()		30
000365/A;1-Connecting Rod		Item	Working()		40
000366/A;1-Crank Shaft		Item	Working()		50
000367/A;1-Bio-Endc...		Item	Working()		60
000391/A;1-Axle Rear Wheel Hub		Part	Working()		10
000392/A;1-Rear Wheel Hub Casting		Part	Working()		20
000393/A;1-Rubber Coupling		Part	Working()		30
000394/A;1-Elastic Hub Differential Side		Part	Working()		40
000395/A;1-Elastic Hub Wheel Side		Part	Working()		50
000396/A;1-Brake Shoe Set OF 2 Pcs		Part	Working()		60
000397/A;1-Propeller Shaft x 2	2	Part	Working()		70
000398/A;1-Stud & Nut		Part	Working()		80
000399/A;1-Hub Nut		Part	Working()		90
000400/A;1-Bush Plate		Part	Working()		10
000401/A;1-Clutch Plates		Part	Working()		20
000402/A;1-Pressure Plates		Part	Working()		30
000403/A;1-Clutch Pati		Part	Working()		40
000404/A;1-Engine Gear		Part	Working()		50
000405/A;1-Clutch Bell		Part	Working()		60

Users can Sort Exported Sheet

tc_1211196075485.mhtml - Microsoft Excel

Home Insert Page Layout Formulas Data Review View Developer Add-Ins

From Access From Web From Text From Other Sources Existing Connections Refresh All Connections Properties Edit Links Sort Filter Clear Reapply Advanced Text to Columns Remove Duplicates Data Validation Consolidate What-If Analysis Group Ungroup Subtotal Outline

G1 Find No.

A	B	C	D	E	F	G	H	I	J
Hon	BOM Line	Quanti	Item Type	Rule configured	Item Rev Stat	Find No.	Make/B	Unit Of Measu	Reference Design
2	000357/A;1-Engine Parts Assembly		Item	Working()			None	each	
3	000362/A;1-Cylinder Block		Item	Working()			None	each	
4	000377/A;1-Front Wheel Hub Casting		Item	Working()			None	each	
5	000391/A;1-Axle Rear Wheel Hub		Part	Working()			None	each	
6	000400/A;1-Bush Plate		Part	Working()			None	each	
7	000409/A;1-1st Gear		Part	Working()			None	each	
8	000372/A;1-Rocker Set		Item	Working()			None	each	
9	000386/A;1-Ball Racer Check Nut		Item	Working()			None	each	
10	000418/A;1-Gear Changer Rod		Part	Working()			None	each	
11	000373/A;1-Rocker Pin		Item	Working()			None	each	
12	000387/A;1-Ball Racer Plain Check Nut		Item	Working()			None	each	
13	000419/A;1-Gear Shifter		Part	Working()			None	each	
14	000374/A;1-Bush		Item	Working()			None	each	
15	000388/A;1-Wheel Cylinder Assembly		Item	Working()			None	each	
16	000375/A;1-Master Cylinder Bolt		Item	Working()			None	each	
17	000389/A;1-Brake Shoe Set Of 2 Pcs		Item	Working()			None	each	
18	000376/A;1-Head Studs		Item	Working()			None	each	
19	000390/A;1-Mounting Rubber		Item	Working()			None	each	
20	000363/A;1-Circlips x 3	3	Item	Working()			None	each	
21	000358/A;1-Steering And Brake		Item	Working()			None	each	
22	000378/A;1-Front Axle		Item	Working()			None	each	
23	000392/A;1-Rear Wheel Hub Casting		Part	Working()		20	None	each	
24	000401/A;1-Clutch Plates		Part	Working()		20	None	each	
25	000410/A;1-2nd Gear Ape		Part	Working()		20	None	each	
26	000364/A;1-Piston Pin		Item	Working()		30	None	each	
27	000379/A;1-Pivot Pin & Washer Locks		Item	Working()		30	None	each	
28	000359/A;1-Rear Wheel Assembly (view)		Item	Working()		30	None	each	
29	000393/A;1-Rubber Coupling		Part	Working()		30	None	each	
30	000402/A;1-Pressure Plates		Part	Working()		30	None	each	
31	000411/A;1-3rd Gear		Part	Working()		30	None	each	
32	000365/A;1-Connecting Rod		Item	Working()		40	None	each	
33	000380/A;1-Link Arm		Item	Working()		40	None	each	
34	000394/A;1-Elastic Hub Differential Side		Part	Working()		40	None	each	
35	000360/A;1-Clutch Assembly (view)		Item	Working()		40	None	each	

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Users can Sort Exported Sheet

tc_1211196724205.mhtml - Microsoft Excel

Home Insert Page Layout Formulas Data Review View Developer Add-Ins

From Access From Web From Text From Other Sources Existing Connections Refresh All Connections Properties Edit Links Connections Sort Filter Clear Reapply Advanced Text to Columns Remove Duplicates Data Validation Consolidate What-If Analysis Group Ungroup Subtotal Outline

G1 Find No.

Find number column sorted numerically

A	B	C	D	E	F	G	H	I	J
Hon	BOM Line	Quanti	Item Type	Rule configured	Item Rev Stat	Find No.	Make/b	Unit or measu	Reference Designat
2	000357/A;1-Engine Parts Assembly		Item	Working()		10		each	
3	000362/A;1-Cylinder Block		Item	Working()		10		each	
4	UUU3///A;1-Front Wheel Hub Casting		Item	Working()		10		each	
5	000391/A;1-Axle Rear Wheel Hub		Part	Working()		10	None	each	
6	000400/A;1-Bush Plate		Part	Working()		10	None	each	
7	000409/A;1-1st Gear		Part	Working()		10	None	each	
8	000363/A;1-Circlips x 3	3	Item	Working()		20	None	each	
9	000358/A;1-Steering And Brake		Item	Working()		20	None	each	
10	000378/A;1-Front Axle		Item	Working()		20	None	each	
11	000392/A;1-Rear Wheel Hub Casting		Part	Working()		20	None	each	
12	000401/A;1-Clutch Plates		Part	Working()		20	None	each	
13	000410/A;1-2nd Gear Ape		Part	Working()		20	None	each	
14	000364/A;1-Piston Pin		Item	Working()		30	None	each	
15	000379/A;1-Pivot Pin & Washer Locks		Item	Working()		30	None	each	
16	000359/A;1-Rear Wheel Assembly (view)		Item	Working()		30	None	each	
17	000393/A;1-Rubber Coupling		Part	Working()		30	None	each	
18	000402/A;1-Pressure Plates		Part	Working()		30	None	each	
19	000411/A;1-3rd Gear		Part	Working()		30	None	each	
20	000365/A;1-Connecting Rod		Item	Working()		40	None	each	
21	000380/A;1-Link Arm		Item	Working()		40	None	each	
22	000394/A;1-Elastic Hub Differential Side		Part	Working()		40	None	each	
23	000360/A;1-Clutch Assembly (view)		Item	Working()		40	None	each	
24	000403/A;1-Clutch Pati		Part	Working()		40	None	each	
25	000412/A;1-4th Gear		Part	Working()		40	None	each	
26	000366/A;1-Crank Shaft		Item	Working()		50	None	each	
27	000381/A;1-Front Fork Assembly		Item	Working()		50	None	each	
28	000395/A;1-Elastic Hub Wheel Side		Part	Working()		50	None	each	
29	000404/A;1-Engine Gear		Part	working()		50	None	each	
30	000361/A;1-Gear Box Assembly (view)		Item	Working()		50	None	each	
31	000413/A;1-Cluster Gear		Part	Working()		50	None	each	
32	000367/A;1-Big Ends		Item	Working()		60	None	each	
33	000382/A;1-Ball Racer Cone		Item	Working()		60	None	each	
34	000396/A;1-Brake Shoe Set OF 2 Pcs		Part	Working()		60	None	each	
35	000405/A;1-Clutch Bell		Part	Working()		60	None	each	

tc_4831653400009708000039c5

Users can copy a cell and paste into multiple cells

The screenshot shows the Microsoft Excel interface with the following data table:

	C	D	E	F	G	H	I	J	K	L
22		Part	Working()		40	None	each	R21		Y
23		Item	Working()		40	None	each	R22		Y
24		Part	Working()		40	None	each	R23		Y
25		Part	Working()		40	None	each	R24		Y
26		Item	Working()		50	None	each	R25		Y
27		Item	Working()		50	None	each	R26		Y
28		Part	Working()		50	None	each	R27		Y
29		Part	Working()		50	None	each	R28		Y
30		Item	Working()		50	None	each	R29		Y
31		Part	Working()		50	None	each	R30		Y
32		Item	Working()		60	None	each	R31		Y
33		Item	Working()		60	None	each	R32		Y
34		Part	Working()		60	None	each	R33		Y
35		Part	Working()		60	None	each	R34		Y
36		Part	Working()		60	None	each	R35		Y
37		Item	Working()		70	None	each	R36		Y
38		Item	Working()		70	None	each	R37		Y
39	2	Part	Working()		70	None	each	R38		Y
40		Part	Working()		70	None	each	R39		Y
41		Part	Working()		70	None	each	R40		Y
42		Item	Working()		80	None	each	R41		Y
43		Item	Working()		80	None	each	R42		Y
44		Part	Working()		80	None	each	R43		Y
45		Part	Working()		80	None	each	R44		Y
46		Part	Working()		80	None	each	R45		Y
47		Item	Working()		90	None	each	R46		Y
48		Item	Working()		90	None	each	R47		Y
49		Part	Working()		90	None	each	R48		Y
50	6	Part	Working()		90	None	each	R49		Y
51		Part	Working()		90	None	each	R50		Y
52		Item	Working()		100	None	each	R51		Y
53		Item	Working()		100	None	each	R52		Y
54		Part	Working()		100	None	each	R53		Y
55		Item	Working()		110	None	each			Y
56		Item	Working()		110	None	each			Y

A yellow callout box is positioned over cell R49, containing the text: **Property: bl_ref_designator Editable: Yes**

Off Line Editing and Direct Connectivity

- After Excel Sheet is exported (see the Note below), users can save the Excel Sheet, modify the values “Off Line” and merge the changes later into Teamcenter
 - Users can directly connect to Teamcenter from Excel or
 - Users can open the saved sheet from the “Rich Client” and merge the changes into Teamcenter
- **Note:** This feature is supported only if the sheet is exported from MyTeamcenter or Search results window in 2007.

Users can save the sheet (in XLSM format only)

tc_1210669535721.mhtml - Microsoft Excel

Home Insert Page Layout Formulas Data Review View Developer Add-Ins

Refresh Non-Live Export to Teamcenter Excel Import

B7

	A	B	C	D	E	F	G	H	I	J
1	Home	Description	Object	Type	Owner	Group ID	Last Modified Date	Checked Out	Release Status	
2		Assembly of a simple ball pen	000067/A;1-Pen Assembly	ItemRevision	Variar, Santosh (variari)	Engineering	13-May-2008 03:59			
3			000067	Item Master	Variar, Santosh (variari)	Engineering	13-May-2008 03:59			
4		Plastic Body	UUUU68-Body	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:00			
5		Metal Cap	000069-Cap	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:00			
6		Ball Point Refill Changed	000070-Refill	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:07			
7			000071-Spring	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:01			
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Teamcenter Extensions for Microsoft Office

 You will lose the Teamcenter Extensions for Microsoft Office connectivity upon reopening if you save in XLSX or MHTML format. Save as XLSM if you want to preserve the "live" behavior.

OK

tc_482959df0000553000004e09

Users can edit the file in Off Line Mode

The screenshot shows a Microsoft Excel window titled "tc_1210669535721.xlsm - Microsoft Excel". The ribbon includes Home, Insert, Page Layout, Formulas, Data, Review, View, Developer, and Add-Ins. A custom toolbar on the left contains "Refresh", "Non-Live", "Export to Teamcenter", and "Excel Import". The active cell is B4, containing the text "Plastic Body".

	B	C	D	E	F	G	H	I	J	K
	Description	Object	Type	Owner	Group ID	Last Modified Date	Checked Out	Release Status		
1										
2	Assembly of a simple ball pen	000067/A;1-Pen Assembly	ItemRevision	Variar, Santosh (variari)	Engineering	13-May-2008 03:59				
3		000067	Item Master	Variar, Santosh (variari)	Engineering	13-May-2008 03:59				
4	Plastic Body	000068-Body	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:00				
5	Metal Cap	000069-Cap	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:00				
6	Ball Point Refill Changed	000070-Refill	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:07				
7		000071-Spring	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:01				
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A dialog box titled "Teamcenter Extensions for Microsoft Office" is displayed in the foreground. It contains the following text:

This spreadsheet was saved from a live Teamcenter Extensions for Microsoft Excel session. Do you want to connect to the Teamcenter 2007 server?

If you click No, all changes will be accumulated.

The dialog box has two buttons: "Yes" and "No".

Users can connect to the Teamcenter directly

tc_1210669535721.xlsm - Microsoft Excel

Home Insert Page Layout Formulas Data Review View Developer Add-Ins

Refresh Non-Live

Export to Teamcenter Excel Import

B4 Plastic Body

	B	C	D	E	F	G	H	I	J	K
	Description	Object	Type	Owner	Group ID	Last Modified Date	Checked Out	Release Status		
1										
2	Assembly of a simple ball pen	000067/A;1-Pen Assembly	ItemRevision	Variar, Santosh (variari)	Engineering	13-May-2008 03:59				
3		000067	Item Master	Variar, Santosh (variari)	Engineering	13-May-2008 03:59				
4	Plastic Body	000068-Body	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:00				
5	Metal Cap	000069-Cap	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:00				
6	Ball Point Refill Changed	000070-Refill	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:07				
7		000071-Spring	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:01				
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Login

Teamcenter Extensions for Microsoft Office Login

User Name:

Password:

Group:

Role:

Ok Cancel

User changes will be merged into Teamcenter

tc_1210669535721.xlsm - Microsoft Excel

Home Insert Page Layout Formulas Data Review View Developer Add-Ins

Refresh Non-Live

Export to Teamcenter
Excel Import

B4 Plastic Body

	B	C	D	E	F	G	H	I	J	K
	Description	Object	Type	Owner	Group ID	Last Modified Date	Checked Out	Release Status		
1	Assembly of a simple ball pen	000067/A;1-Pen Assembly	ItemRevision	Variar, Santosh (variari)	Engineering	13-May-2008 03:59				
2		000067	Item Master	Variar, Santosh (variari)	Engineering	13-May-2008 03:59				
3										
4	Plastic Body	000068-Body	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:00				
5	Metal Cap	000069-Cap	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:00				
6	Ball Point Refill Changed	000070-Refill	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:07				
7		000071-Spring	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:01				
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Teamcenter Extensions for Microsoft Office

The spreadsheet is being refreshed from Teamcenter 2007.
Please wait ...



Excel connected to Teamcenter !

The screenshot shows Microsoft Excel with a custom toolbar containing 'Export to Teamcenter' and 'Excel Import'. The active spreadsheet is titled 'Plastic Body' and contains the following data:

	B	C	D	E	F	G	H	I	J	K
	Description	Object	Type	Owner	Group ID	Last Modified Date	Checked Out	Release Status		
1	Assembly of a simple ball pen	000067/A;1-Pen Assembly	ItemRevision	Variar, Santosh (variari)	Engineering	13-May-2008 03:59				
2		000067	Item Master	Variar, Santosh (variari)	Engineering	13-May-2008 03:59				
3										
4	Plastic Body	000068-Body	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:00				
5	Metal Cap	000069-Cap	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:00				
6	Ball Point Refill Changed	000070-Refill	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:07				
7		000071-Spring	Item	Variar, Santosh (variari)	Engineering	13-May-2008 04:01				
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The dialog box 'Teamcenter Extensions for Microsoft Office' contains the message: 'It is currently connected to Teamcenter 2007 server.' with an 'OK' button.

Users can open a saved sheet from Rich Client

My Teamcenter - Teamcenter 2007

File Edit View Tools Window Help

Search Folders

UGS Teamcenter

variar) - Engineering/Designer [S0426Ww])

ed My Teamcenter x

000067-Pen Assembly

Description	Object	Type	Relation	Owner	Group...	Last Modified ...	Ch...	...
Assembly of a simple ball ...	000067/A;1-Pen Assem...	ItemRevision	Revisions	Variar...	Engin...	13-May-2008 ...		
Plastic Body	000067	Item Master	Item Mast...	Variar...	Engin...	13-May-2008 ...		
Metal Cap	000068-Body	Item	References	Variar...	Engin...	13-May-2008 ...		
Ball Point Refill Changed	000069-Cap	Item	References	Variar...	Engin...	13-May-2008 ...		
	000070-Refill	Item	References	Variar...	Engin...	13-May-2008 ...		
	000071-Spring	Item	References	Variar...	Engin...	13-May-2008 ...		

000067-Pen Assembly

- 000067
- 000068-Body
- 000069-Cap
- 000070-Refill
- 000071-Spring

Getting Star

My Teamcenter

PSE

Schedule Manager

CAE SE

Validation

StructureMap Builder

Ready

Other Features

- Users can run search and export the search results to Excel “Live”
- Users can export structure data from the following applications
 - Requirement Manager
 - Product Structure Editor
 - Collaboration Context
 - Manufacturing
- Note: Data exported from Structure Editor cannot be saved and worked “Off Line”. **This feature is planned in a future release**

Diagram: Inter client to Excel

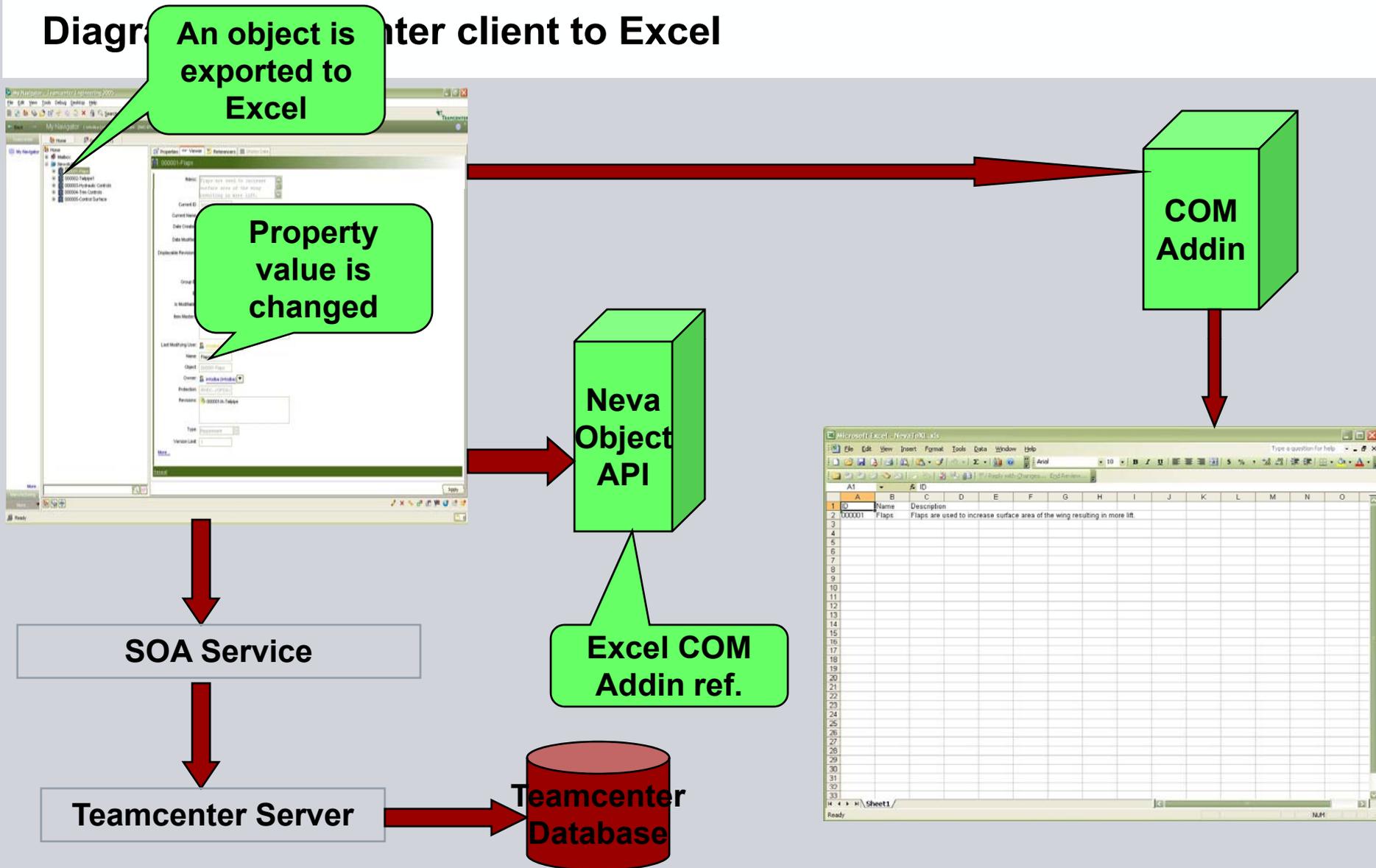
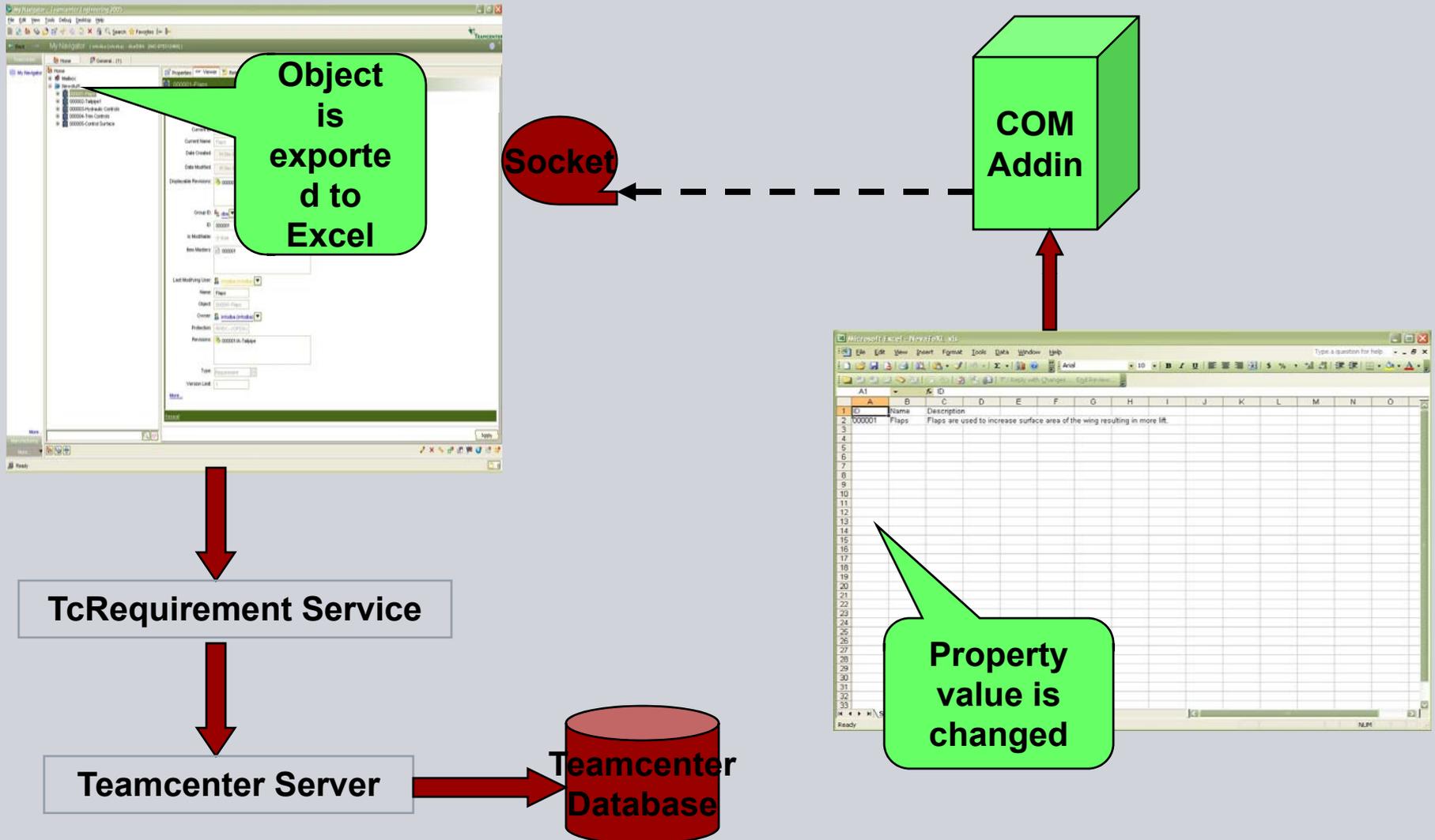


Diagram : Excel to Teamcenter communication



Enhancements coming in Teamcenter 8

- Export to Excel Using Excel Templates
 - Templates can be created that define the list of properties to export for each object type
 - Templates can also define the format for values
- Apply Rules to Export Process
 - Rules can be defined such that a specific set of properties can be exported that match given rules
- Apply Packing of rows to create Trace Table
 - Pack one or more rows into a row to create Trace Table

Example of Excel Template – Formatted cells

Microsoft Excel - REQ_Excel_Template.xls

File Edit View Insert Format Tools Data Window Help

75%

A6 {%object_type}

1 Siemens PLM Software

2 Exported Excel Sheet

3

4 **Type** **Object** **Name** **ID** **Owner** **Group** **Data Modified CO** **Additional**

Usage Tips: 1. All the content above the <start> tag will be considered as header or constant information. But if the header cell has a format {%-Real Property Name}, then its value will be replaced by Display Name of that property during sheet generation. 2. The yellow column indicates the start of 'Rules'. 3. The 'Rules' should be written in the required order of precedence. 4. The Properties table on the left will specify the properties to be exported for each matching rule. 5. The rule table in the template is not exported to the spreadsheet. 6. Apply Style information to cells as desired. This style information will be taken and applied to the generated excel sheet.

5

										Level	Relation	Type	Transfer
6	{%object_type}	{%object_string}	{%object_name}	{%item_id}		{%owning_group}				<rule>		{%S-Item}	
7	{%object_type}	{%object_string}	{%object_name}	{%item_id}	{%owning_user}	{%owning_group}	{%last_mod_date}			<rule>		{%S-Requirement}	
8	{%object_type}	{%object_string}	{%object_name}						{%compd_as_sign_to}	<rule>		{%S-Requirement Revision}	
9	{%object_type}		{%object_name}	{%item_id}						<rule>		{%S-Folder}	
10	{%object_type}	{%object_string}	{%object_name}	{%item_id}	{%owning_user}	{%owning_group}	{%last_mod_date}			<rule>		{%S-Paragraph}	
11	{%object_type}	{%object_string}	{%object_name}	Some constant value	{%owning_user}	{%OWNING_GROUP}	{%last_mod_date}	{%checked_out}	{%checked_out}	<rule>		{%S-FullText}	
12	{%object_type}		{%object_name}	{%item_id}		{%owning_group}	{%last_mod_date}			<rule>		{%S-Paragraph}	

13 All the content below the <end> tag will be considered as footer or constant information. You can insert images or any other content you would like to be exported.

14

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17 **Company** Siemens

18

19

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21 **Signature**

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Formatted properties using keywords

Rules for each type of object

Excel Template can be created and edited using Excel

The screenshot shows the Microsoft Excel application window titled "Default Template.xlsm - Microsoft Excel". The ribbon is set to "Home". The left-hand pane shows a file explorer with the following structure:

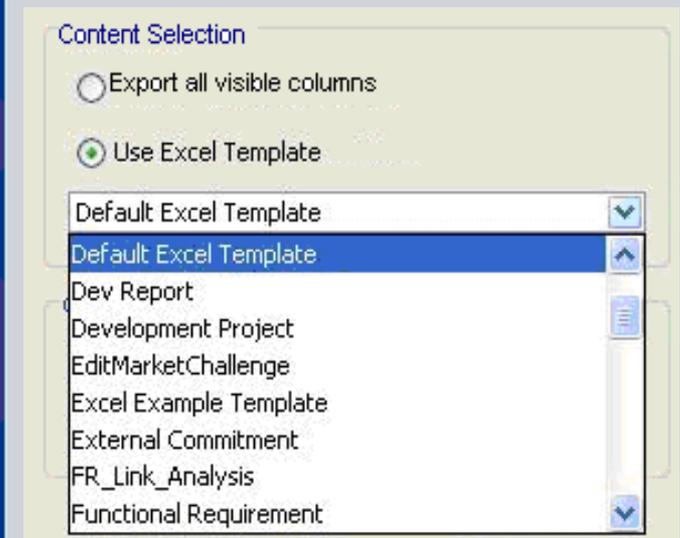
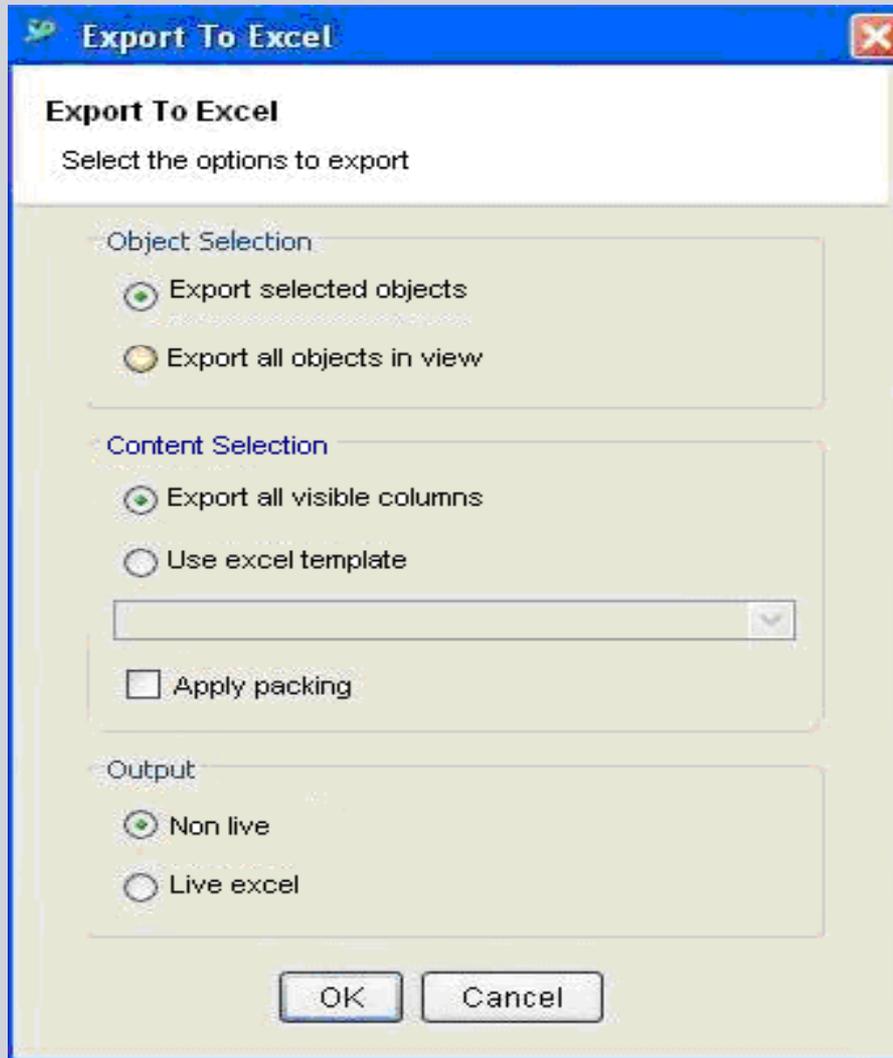
- Home
 - RequirementsManagement Templates
 - REQ_excel_template
 - REQ_default_styles_template
 - Templates for Export
 - SpecificationTemplates
 - ObjectTemplates
 - ExcelTemplates
 - 000326-DefaultExcelTemplate
 - CAM Express Tutorials
 - CAM Setup Templates
 - Unigraphics UDF parts
 - Unigraphics seed parts
 - Mailbox
 - Newstuff
 - Test

The main spreadsheet area displays the following content:

RM Template						
Object	Relation	Type	Id	Owner	Group ID	Date Modified
<start>	{Before the this tag every thing will be considered as Header info					
{%object_n ame}	{%Relatio n}	{%object_typ e}	{%item_id}	{%owning_ user}	{%owning_grou p}	{%last_mod_date}
<end>	{Below the end tag every thing will be considered as Footer info					

The status bar at the bottom indicates "Ready" and "Sheet1". The taskbar at the very bottom shows various system icons and the "Apply" button.

New Export To Excel Dialog



Generated Sheet using Template

Microsoft Excel - REQ_Samplae-Sheet.xls

File Edit View Insert Format Tools Data Window Help

Type a question for help

100% Arial

Reply with Changes... End Review...

Type	Object	Name	ID	Owner	Group	Data Modified	CO	Additional
Item	000393-item1	item1	000393		dba			
Requirement	REQ-000404-ABCReq	ABCReq	REQ-000404	infodba (infodba)	dba	12-May-2008 18:31		
Requirement Revision	REQ-000404/A;2-ABCReq	ABCReq						Niranjan
Paragraph	000167-Notes	Notes	000167	infodba (infodba)	dba	02-Aug-2007 10:45		
FullText	ABCReq	ABCReq	Some constant value	infodba (infodba)	DBA	05-May-2008 16:44		
FullText	Notes	Notes	Some constant value	infodba (infodba)	DBA	22-Jun-2007 11:31		
Folder		Home						
Company	Siemens							
Signature								

About Teamcenter 2007

My Teamcenter UGS Teamcenter

UGS PLM Software Teamcenter 2007 (20080417.00)

My Teamcenter is used to organize your product information. It serves as the main access point for many of the commonly used PDM functions, such as workflow, find, product data check in/out. Typically, you will use My Teamcenter to reference frequently used objects in Teamcenter.

Sheet1

Ready

Rule Tables in Excel Template

- Rule table consists of three parts
 - Level
 - Relations
 - Type
 - Level
 - The Level key field specifies the level of the objects for which the property tag data is exported. For example, with 2 as the key field argument, data is exported for objects that appear at level two in the view. Level will be applicable only for PSE, CC, RM, MSE etc.
 - SYNTAX – {%L-Level}
 - EXAMPLE - {%L-1}
- Relations
- Type

Level Field in Rule Tables in Excel Template

- Level
 - The Level key field specifies the level of the objects for which the property tag data is exported. For example, with 2 as the key field argument, data is exported for objects that appear at level two in the view. Level will be applicable only for PSE, CC, RM, MSE etc.
 - SYNTAX – {%L-Level}
 - EXAMPLE - {%L-1}

Relations field in Rule Tables in Excel Template

- Relations
 - The Relation key field specifies the GRM relation that defines the association between two POM objects.
 - SYNTAX – { %R-Relationship Name }
 - EXAMPLE - { %R-IMAN_specification }

REQ_default_styles_template/A;1		
Object	Type	Relation
view		Collection
REQ_default_styles_template/A	DocumentRevision Master	IMAN_master_form_rev
REQ_default_styles_template	MSWordX	IMAN_specification

Type Field Rule Tables in Excel Template

- Type
 - This key field specifies the Type definition for which the property tag data is exported
 - For example, with Requirement as a key field, data is exported for requirements that are selected for export to Excel.
 - SYNTAX – {%S-Type Name}
 - EXAMPLE - {%S-Requirement}

Levels and Relation

- Levels and relation depend on how the user specifies the objects to export:
- When objects are exported from MyTeamcenter level of objects is ignored.
- When all visible objects are exported from a RM, PSE the level is **1** for the leftmost objects, with level numbers increasing from left to right by numeric value.

Contact

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