Telelogic DOORS Telelogic DOORS for Microsoft Team Foundation Server Add On User Guide





Telelogic DOORS TFS

Using Telelogic DOORS TFS

Release 2.0.0.0

This edition applies to **VERSION 2.0.0.0, Telelogic DOORS TFS Integration** and to all subsequent releases and modifications until otherwise indicated in new editions.

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Why Integrate DOORS And TFS

The DOORS TFS integration provides the ability to associate a DOORS Object to one or more TFS workItems. The reverse is true in that one work Item can be associated with multiple DOORS Objects. These associations allow the ability to import, export, and store data between the two linked items in the two separate products.

The value in these associations is that it provides a physical link between Requirements and the development items required to implement the requirements. This 'link' allows the ability to better track and status the progress of a development, project or program. The integration (link) provides a method to communicate change in both directions. It also provides a record of events and changes that can be used for auditing purposes.

For instance: A customer wants to make a change to a system being developed, that change needs to be communicated from the Systems Engineers to the Software Developers. In today's world the customer, Systems Engineers, and Developers can all be in different geographic regions around the world. So the decision to accept and implement the customer change occurs on one side of the World and time zone. The next morning the developers can check and receive notification of the change and then begin the implementation process of the new change.

In this same scenario the integration can help track the impact of the customer change to the schedule and cost. As development incurrs the change, resources are assigned to the 'task' or 'enhancement request', schedule changes are noted on the TFS workItems by changing delivery dates, Cost changes are noted by additional hours required for development and Testing. This information can be exported to DOORS, where Engineering and Managment can be informed of the change/impacts and develop more accurate schedule and cost reports

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How It Works

When a link is created between a workItem and a DOORS Object, the integration creates two (2) links for every link. In DOORS, a new External Link is created on the DOORS Object and contains the TFS workItem URI information. On the Team System side, a new external link is created on the WorkItem which contains the URI information of the DOORS Object. In addition to the new Team System WorkItem link - a new item (DoorsProxy) is also created. This new item acts as the Links data storage object.

Note Users should not ever create a DoorsProxy object from the TFS New Item menu. Only the DOORS TFS integration should ever create these items.

The shared data between DOORS and TFS works like this: When a create link or Synchronize operation occurs, the Visual Studio TFS workItem scans it's links to find any that point to a DOORS Object. It then retrieves from DOORS the Object's most current attribute data values for a defined set of attributes. This data is then used to update the attribute values of the DoorsProxy item for that link. Then the TFS workItem data is exported to DOORS for a defined set of attributes. The data is then used to update the attribute values of the DOORS for a defined set of attributes. The data is then used to update the attribute values of the DOORS for a defined set of attributes.

What's New in Version 2

• Embedded Integration Forms

Custom forms and controls can be configured to appear as part of the standard workitem form with in the Visual Studio Environment. Most of the integration operations can now be performed from these new controls.

• New TFS Floating Menu

The version 1 integration relied on a floating interface dialog to support it's link creation and management operations. Version 2 makes use of the embedded controls for most link management operations. Because of this, the version 1 interface was replaced with a new floating menu which is used mainly for performing Synchronize and Linking operations on multiple workitems or DOORS objects.

• Create New Tasks from DOORS Requirements

New workitems of type 'Task' can be generated from DOORS objects. This can be used to initially populate your projects or quickly add and link new requirement initiated tasks to existing projects.

Custom DOORS Link Edit Form

When links of DoorsLinkType are edited, a custom form is provided to allow integraton operations on a single link level. Viewing imported attributes, synchronizing, and navigation are available from this single form.

• Reportable Link Attributes

Workitem custom link attributes are not available for reporting in a standard configuration. TFS DOORS works around this problem by providing a new workitem type '**Doors Proxy**' where the imported data from DOORS is stored. Since this is a form of workitem type it's data fields can be included in standard queries.

Embedded IntegrationForms

Version 2 of the DOORS TFS integration provides a new and more capable interface design. Creation and managing of Links between TFS WorkItems and DOORS objects is now embedded within the WorkItem forms as part of Visual Studio Team System. The following section introduces the new embbeded interfaces describing where they appear and how to access them.

DOORS Icon Header



A DOORS icon appears on the WorkItem **Task** form as part of the form's header banner. This icon is used as a grabbing point to allow the user to drag the workItem to a DOORS Object to make a new link. Just grab the icon and drag over to a DOORS object and drop.

Mail Work	Items [Results] - M	licrosoft Visua	al Studio					<u>_</u> _
Eile Edit	<u>V</u> iew <u>B</u> uild Tea <u>n</u>	<u>n I</u> ools Teg	<u>st Window H</u> e	lp				
and the second second second	i 🖓 🖬 - 🔜 💋			- (° - ▶	- 91 (3 °3 0	रु 🐨 🖄 🛠	è 👶 🖂 📲	
	j 🖪 🖻 🔂 🦧	1 🛋 🔯 📔	3 📮					
All Work	Items [Results] s	tart Page	-					🕶 🗙 Team Explorer 🚽 👎
Query Resu	lts: 207 results found (1 currently sele	cted).					
/ Rev	Area Path		∧ ID	Work Item Type	State	Assigned To	Title	gis.tfsmadeeasy.com
15	drstest		31	Task	Proposed	John Norris	Setup: Set Permi	mis My Favorites
8	drstest		32	Task	Proposed	John Norris	Setup: Migration	📑 🔄 👔 drstest
13	drstest		33	Task	Proposed	John Norris	Setup: Migration	n c 📄 Work Item Templates
13	drstest		34	Task	Proposed	John Norris	Setup: Set Check	ck-
17	drstest		35	Task	Proposed	John Norris	Setup: Send mail	ail t Active Bugs
13	drstest		36	Task	Proposed	John Norris	Setup: Create Pr	Prc All My Team Project Work Items
23	drstest		37	Task	Active	John Norris	Create Vision Sta	
•							•	All Work Items
Task 31 : Se	etup: Set Permissions							Disched Work Items Change Requests Corrective Actions Corrective Actions Corrective Requirements Corrective Requirements Correction Requirements Correction Rests
Title: Se	tup: Set Permissions				Discipline Type:	: User Educati		📷 Issues 🖏 Mitigation Action Status
					17,501	J		🌇 My Work Items
Classific	ation							- Product Requirements
Area pat							•	Team Explorer
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Status								
Assigned	d to: John Norris			Blocked: No			•	
Priority	3			V State: Prop	osed		-	-
Error List							÷	7 ×
0 Errors	🔥 0 Warnings 🛛 🚺	0 Messages						
	Command Window		Find Symbol Resu	lts				
Ready								

Note Reverse Drag Drop from DOORS is not activated at this time., use the DOORS Links Tab instead.

Custom DOORS Links Tab Panel

-	History Links DOOR:	o LinKS Attachments Details			
ID	Туре	Title	Description	Comments	Navigate
0	DoorsLinkType	ID: UC1 Module: Novembe	new use case text 2:51	vstfs:///WorkItemTrac	
1	DoorsLinkType	ID: UC5 Module: Novembe	this is a test for sectio n1	vstfs:///WorkItemTrac	
2	DoorsLinkType	ID: UC7 Module: Novembe	this is an inserted section	vstfs:///WorkItemTrac	Attributes
3	DoorsLinkType	ID: UC11 Module: Novemb	insert at pos 4	vstfs:///WorkItemTrac	
4	Workitem Hyperlink	doors://JOHN3:36679/?ver	doors://JOHN3:36679/?version=		Synchronize
5	Workitem Hyperlink	doors://JOHN3:36679/?ver	doors://JOHN3:36679/?version=	vstfs:///WorkItemTrac	
					Delete

A new Custom Tab panel can been added to workitem forms that will display links to DOORS targets. This includes any pre-Existing links to DOORS of different link types such as Work Item Hyperlink.. This form provides all link **Creation**, **Deletion**, **Synchronization**, and **Navigation** functions. (See Installation and Configuration for adding to WorkItem Forms.

Navigation

Select and link and then select the 'Navigation' button to navigate to the DOORS object in DOORs.

• Delete

You may select one or more links then select 'Delete' button. This will permanently remove the links between this workItem and the target DOORS Object(s). If the link is unable to be deleted an info message or Report message will be dsiplayed.

Syncrhonize

Selecting the 'Synchronize' button will attempt to synchronize all of the links shown in the display. Any errors or warnings will be displayed in a Report Window that opens when synchronize begins.. If you wish to only synchronize one link use the Custom Link Edit Form which can be accessed from the standard 'Links' tab through the 'Edit' button.

• Attributes

To view all of the imported attributes from DOORS for the selected link, click on the 'Attributes' Button. This will display the DoorsProxy Form which is used to store imported DOORS data for each link. (See DOORS Proxy Object for more information)

Drag and Drop Linking Header Banner



You may create links by dragging from the Blue Header Banner to DOORS and dropping on an Object OR you may Drag from DOORS a single object and Drop onto the Blue Header Banner. You may also Drop DOORS objects onto the Links Grid List View.

ID	Туре	Title	Description	Comments
0	DoorsLinkType	ID: UC1 Module: Novembe	new use case text 2:51	vstfs:///WorkItemTrac
1	DoorsLinkType	ID: UC5 Module: Novembe	this is a test for sectio n1	vstfs:///WorkItemTrac
2	DoorsLinkType	ID: UC7 Module: Novembe	this is an inserted section	vstfs:///WorkItemTrac
3	DoorsLinkType	ID: UC11 Module: Novemb	insert at pos 4	vstfs:///WorkItemTrac
4	Workitem Hyperlink	doors://JOHN3:36679/?ver	doors://JOHN3:36679/?version=	
5	Workitem Hyperlink	doors://JOHN3:36679/?ver	doors://JOHN3:36679/?version=	vstfs:///WorkItemTrac

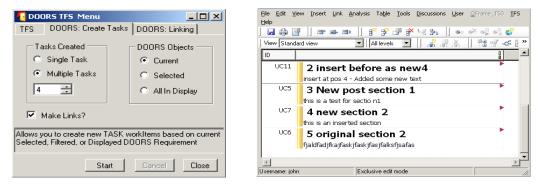
TFS DOORS Floating Menu

Activating the Studio Tools menu option for TFS DOORS will now display the below Multi-function Tabbed Menu dialog. The version 1 integration relied on a floating interface dialog to support it's link creation and management operations. Version 2 makes use of the embedded controls for most link management operations. Because of this, the version 1 interface was replaced with a new floating menu which is used for performing Synchronize and Linking operations on multiple workitems or DOORS objects

	Visual Studio	
	Tools Test Window Help	
	TFS DOORS v2	
DOORS TFS Menu Image: Constraint of the second se	DOORS TFS Menu TFS DOORS: Create Tasks DOORS: Linking Current Query Results Document: All Work Items WorkItems: 422 Selected: 1 Items To Synchronize © Current © Selected © All In Results	DOORS TFS Menu Image: Constraint of the second sec
Make Links? Allows you to create new TASK workItems based on current Selected, Filtered, or Displayed D0DRS Requirement Start Cancel Close	Allows you to synchronize Selected WorkItems or All WorkItems in current Results View Start Cancel Close	Allows you to Link Multiple DOORS Objects to a WorkItem or Link a Single DOORS Object to Multiple WorkItems Start Genorf Close

Create New Tasks From DOORS Requirements

DOORS: Create Task Tab



Create Tasks Tab option allows you to generate NEW TFS Task WorkItems based on Selected or Filtered DOORS objects.. You may also generate multiple task items based off of one (1) DOORS Requirement object. The DOORS Object Text will become the Task's Description. If there is Object heading text that will become the Task's Title or if no Heading text then the DOORS object identifier is used for the Task's Title. The create links option is defaulted to (YES) so that new tasks are created and linked at the same time..

Tasks Created Section

- Single: Once Task for each DOORS Object
- Multiple: N number of Tasks for each DOORS Object

DOORS Objects Section

- Current: Current DOORS Object
- Selected: Selected DOORS Objects using shift-click:
- All In Display: All Objects in Current Display or Filtered Display

Make Links:

• If checked then links will be created between the new task item and the DOORS Object

To create a single new task for each DOORS Object selected or filtered, set the 'Single' option of the 'Tasks Created' section. Then select 'Current' for current Object, 'Selected' for a selected group of Objects or 'All In Display' to use all Objects in the current DOORS display.

To create more than one task per DOORS Object set the 'Multiple Task' option and then select from the numeric option list the number of tasks to create. These task will contain the same data with the exception of when the DOORS object being used has no Object Heading text and in that case the Object identifier is used as the title of the new task

Select the 'Start' button, a confirmation prompt should appear indicating how many new tasks are about to be created. Selecting 'OK' will start the operation and will also open a 'Report Dialog'' to display messages and warnings for each task being created.

CANCEL can be invoked from either the Menu dialog or from the Report Dialog.

Custom DOORS Link Type And Edit Form

Custom Link Edit Form

	Value
LITL	doors://JOHS336680/?vectors2igradD+0lium
Module	NovembelProjectPackage Process
Object kd	0011
Object Text	insert at pos 4
Short Text	
Last Modified By	john .
Last Modiled Dn	Tuesday, November 04, 2000
Last Sensivorized On	
4	
•	
= - Expand to Yew Current reported: Current Salue P	ad Tine Report Verv
rportect Current Salue (R Attitude	al Tine Report Vero
nportect: Current Salue R Attitude Object Heading	Value met betwe ar news
nportect: Current Halue P Antibule Deport Heading URL	all Time Report View Visitue V
ngoted: Current Halue R Antoule Depict Hwading URL Module Name	all Time Report. View mod. Software an even. does: // 0.0%3.388500*/venion=35pod.0=Gue NovemberReport Process
riported: Current Halue P Antibute Direct Heading UPL Module Name Datict Tokintler	Value
ngorsed: Current Halael R Ahtoule Deloc Heading URL Module Name Deject Heading and Object	al True Report Yew Years mod Todays an years down (2014)338990 / wearson (Daniel Daniel Movember Property Lange Recent UC11 2 Prant Islans an envelopment at cost 4
reported: Current Halael P Antibule Deport Heading URL Models Name Deport Jewaldes Deport Jewaldes Deport Heading and Object Depart Heading and Diport	all True Report. Vew Value medi Johns on new? down / 2014/13 28850 "Annion-Stapod D-Gue Not Defined Package Record 2 Point Industry Annion 41 point 1 Points Industry 61 (2016) 6
nportect: Current Halue P Antibule Deport Heading URL	al True Report Yew Years mod boles an rest down (2014) 2000 / weather Report Decks November Report Rest UC11 2 Point Inter a novellinest at point UC11
ngotted: Current Italian A Ambouw Chech Heading URL Mode Name Depot Devotes Depot Heading and Depot Depot Heading and Depot Depot Heading and Depot Depot Heading and Depot	nil Tine Report: Vero Value mod balance as result down / Col-11 28/80 characterization (Toronto down / Col-11 28/80 characterization (Toronto Col-11 2) most fabrice as reconfigured at post 6 Transcip, Neural (Col-10) Transcip, Neural (Col-10) Transcip, Neural (Col-10)
reported: Current Halael P Antibule Deport Heading URL Models Name Deport Jewaldes Deport Jewaldes Deport Heading and Object Depart Heading and Diport	all True Report. Vew Value rend Johns on revi- down / (10-11) 38850 "Annion-Stand D-Gue Not D-Theory Process Company of the Company Annion 2 Process Inverse (12,200) Freedo, Inverse (12,200) Encode, Inverse (12,200)
ngotted: Current Italian A Ambouw Chech Heading URL Mode Name Depot Devotes Depot Heading and Depot Depot Heading and Depot Depot Heading and Depot Depot Heading and Depot	nil Tine Report: Vero Value mod balance as result down / Col-11 28/80 characterization (Toronto down / Col-11 28/80 characterization (Toronto Col-11 2) most fabrice as reconfigured at post 6 Transcip, Neural (Col-10) Transcip, Neural (Col-10) Transcip, Neural (Col-10)

The DoorsLink edit form is a multi-function form that allows you to:

- View the link attributes imported from DOORS.
- Perform an attribute value compare to the current values in DOORS
- Perform a single link synchronize
- View Configured Real Time Report attributes.

To access the link edit dialog, select a link of type 'DoorsLinkType' and then select the 'Edit' option butoon

Rev	Area Path	∧ ID	Work Item Type	State	Assigned To	TRIe	main star at a	tails of this link.		
15	drstest	31	Task	Proposed	John Norris	Setup: Set Permissions	Edic the de	calls of this link.		
7	drstest	32	Task	Proposed	John Norris	Setup: Migration of Source Code	Link type:	DoorsLinkType		
11	drstest	33	Task	Proposed	John Norris	Setup: Migration of Work Items change	-Link detai	1		
10	drstest	34	Task	Proposed	John Norris	Setup: Set Check-in Policies	LINK detai	15		
12	drstest	35	Task	Proposed	John Norris	Setup: Send mail to users for installation			Imported: DOORS Attributes	
12	drstest	36	Task	Proposed	John Norris	Setup: Create Project Structure			Imported: DUURS Attributes	
20	drstest	37	Task.	Active	John Norris	Create Vision Statement	Attrit	huta	Value	
22	drstest	38	Task	Proposed	John Norris	Create Configuration Management Plan	LIBI		doors://JOHN3:36690/?version=2&prodID=0	2
10	drstest	39	Task	Proposed	John Norris	Create Personas	Mod		NovemberProjectPackage Process	cum
6	drstest	40	Task	Proposed	John Norris	Create Quality of Service Requirements		actid	LIC11	
5	distect	41	Task	Proposed	John Norris	Create Scenarios		ect Text	insert at pos 4	
						<u> </u>	Shot	rt Text		
sk. 31 : Sel	tup: Set Permissions							Modified By	john	
								Modified On	Tuesday, November 04, 2008	
Descriptio	n History Links Attachme	nts Details					Last	Synchronized On		
Link Typ	e Description				Comments	Coen				
DoorsLi		3-36690/2-arcion=28-rs	odID=08view=00000002	Remmun talalogic		orkitemTracki	•			•
DoorsLi			odID=08view=00000002			orkitemTracki Add				
Work It		p: Migration of Source C					+ - 1	Expand to View Curn	ent DOORS Values View Val	ue
						Edit				
						Delete				
						Delete				

View Value Buttons

Select a row in the attribute view list and then select the "View Value" button, a separate dialog will display and show the full value of the attribute being displayed...

ttribute	Value	
URL	doors://JOHN3:36690/?version=2&prodID=0&urn=	Attribute
Module	NovemberProjectPackage Process	URL
Object Id	UC11	JURL
Object Text	insert at pos 4	
Short Text		Value
Last Modified Bv	iohn	
Last Modified On	Tuesday, November 04, 2008	doors://JOHN3:36690/?version=2&prodID=0&urn=urn:telelogic::1-
Last Synchronized On		496ac77e7a1d2ffb-0-11-00000080
East official officer off		

Navigate To Linked DOORS Object

Navigation to the linked DOORS Object can be accomplished by double clicking on the

'Navigate' icon shown above. If DOORS is not already started, the navigate action will start a new DOORS session and prompt the user to login. Upon startup completion, navigation will open the DOORS module and select the target object.

Note If the linked object does not reside in the current database or has been removed, a message dialog will display indicating the cause for the failure.

Expand To Compare With Current DOORS Values

lit the details of this link.		Edit the details of this link.	
ktype: DoorsLinkType		Linktype: DoorsLinkType	
ink details		Link details	
7] I	mported: DOORS Attributes 🍌	- 10	Imported: DOORS Attributes
Attribute	Value	Attribute	Value
URL	doors://JOHN3:36690/?version=2&prodID=0&urn=	URL	doors://JOHN3:36690/?version=2&prodI
Module	NovemberProjectPackage Process	Module	NovemberProjectPackage Process
Object Id	UC11	Object Id	UC11
Object Text	insert at pos 4	Object Text	insert at pos 4
Short Text		Short Text	
Last Modified By	john	Last Modified By	iohn
Last Modified On	Tuesday, November 04, 2008	Last Modified On	Tuesday, November 04, 2008
Last Modified On Last Synchronized On	Tuesday, November 04, 2008	Last Modified On Last Synchronized On	Tuesdey, November 04, 2008
Last Synchronized On	t DOOR5 Values View Value	Last Synchronized On	
Last Synchronized On	E DOORS Values View Value	Last Synchronized On	rrent DOORS Values
Last Synchronized On	t DOCRS Values View Value eal Time Report View	Last Synchronized On	rrent DOORS Values View
Last Synchronized On Last Synchronized On	EDOORS Values View Value eal Time Report View Value Value inset before as new4	Last Synchronized On	
Last Synchronized On Last Synchronized On Last Synchronized On Last Synchronized On Attribute Object Heading URL	t DOORS Values View Value eal Time Report View Value	Last Synchronized Dn	rrent DOORS Values View Real Time Report View Value Va
Last Synchronized On Last Synchronized On Last Synchronized On Amount of the synchronized		Last Synchronized On Expand to View Cu Imported: Current Value Attribute Object Heading URL Module Object Id	
Last Synchronized On Last Synchronized On		Last Synchronized Dn	rrent DOORS Values View Real Time Report View Value Va
Last Synchronized On Last Synchronized On Last Synchronized On Attribute Object Heading URL Module Name Object Identifier Object Identifier Object Identifier Object Identifier	EDORS Values View Value	Last Synchronized On	
Last Synchronized On Last Synchronized On Last Synchronized On Attribute Dipicet Heading URL Module Name Dipicet Heading and Dipicet. Created On	t DOCRS Values View Value eal Time Report View Value inset before as new4 doors://UINH3 26580/7version=28prodD=08um NovemberFrigetPackage Process UC11 .2 Inset before as new8inset at pos 4 Tuesday, November 04, 2008	Last Synchronized Dn Last Synchronized Dn Altribute Chiect Heading URL Profile Chiect Heading URL Profile Chiect Heading URL Profile Chiect Text Short Text Last Modified By	
Last Synchronized On Last Synchronized On Last Synchronized On Attribute Object Heading URL Module Name Object Identifier Object Identifier Object Identifier Object Identifier	EDORS Values View Value	Last Synchronized On	

Clicking on the plus (+) button, will expand the form to display another list panel. When the form expands it compares the stored Link Attribute data to the current DOORS Object data – if there is a difference - the stored data items will highlite in "Red" as shown above. At this time the "**Synchronize**" button is enabled and if selected the link data is updated from DOORS for this link only

Real Time Report View

Attoole	Value
Dibinet Heading	innet before as new4
LAL	doers //40HN3.36890/"venior=21prod D=CLum
Module Name	NovemberProjectPackage Process
Disect I dentifier	UCII
Deept Heading and Object	2 insert before as nevel/insert at pos 4
Canated Die	Tuesday, November Ed. 2008
Last Modified On	Tuenday, Nevember 04, 2008
4	
	Verv Velue.
	1.0.0.1.0.00

The same V1 capability exists where you can configure and display your own view of other DOORS attributes not included in the Synch/import. These values are not stored with the link and are for viewing only.

Auto DOORS Start Up

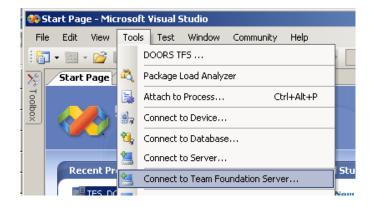
When DOORS is needed the V2 integration will attempt to start DOORS automatically and then post an Acknowledg dialog that should be "OK"ed after you have logged into DOORS and it has completed the startup sequence..

TFS_DOORS_LinkControl	🚹 Login - DOORS 🛛 🗵
	Database: 36690@JOHN3
DOORS is starting - Please Wait until DOORS has completed Startup	Username:
(OK)	Password:
	OK Cancel

Non DoorsLinkType support

The integration supports links created in Version 1 and treats them as DOORS links.. The main difference is that existing links are still limited to only one attribute to be configured (they are not converted to the new link type).. However new links can be created using types such as "Workitem Hyperlink" and these new links will store the new additional DOORS data. There is a drawback and that is only links of "DoorsLinkType" can be opened using the New Custom Link Edit Form.

Connect Visual Studio To Team Server



1. From the Visual Studio Tools menus select 'Connect to Team Foundation Server..' option

Connect to Team Foundation Server	? ×
Connect to a Team Foundation Server:	
tfs06.codeplex.com	<u>S</u> ervers
Ieam projects:	
Select All)	
▼ TFSDOORS	

2. Click "Servers..." button to list existing servers and to add a new server.

Add/Remove Tea	m Foundation Server		<u>? ×</u>
Team Foundation	Server list:		
Name	URL		<u>A</u> dd
tfs06.codeplex	. https://tfs06.codeplex.com/		Remove
		Ē	Close

3. Click "Add..." Button to add a new server.

Add Team Foundat	ion Server			? ×
Team Foundation Se tfs06.codeplex.com				
Connection Details				
Port <u>n</u> umber:	443			
Protocol:	O HTTP	HTTPS		
			_	
		ОК	Car	icel

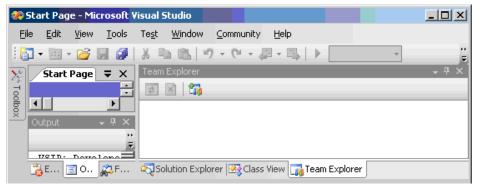
- **4.** Enter in Server name: , Port number, and check Protocol options based on your TFS Visual Studio server configuration. Then click OK to accept new entry.
- **5.** You are now ready to start 'Team Explorer' and execute the DOORS TFS integration.



Starting TFS Explorer in Visual Studio

To execute the DOORS TFS Integration do the following:

1. Start Visual Studio



2. Select 'Team Explorer' tab found in the far right corner

Team Explorer	- ₽ ×
2 × 2	
Add Existing Team Project	

3. Select the **'Add Existing Team Project'** option at the top of the Team Explorer



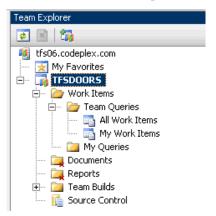
4. Login to TFS Server

Connect to Team Foundation Server	?
Connect to a Team Foundation Server:	
tfs06.codeplex.com	<u>S</u> ervers
Team projects:	
Gelect All)	
TFSDOORS	

- 5. Select the Project you wish to open
- 6. Expand the Project Tree (TFSDOORS in our example case) and wait until 'Work Items' are loaded



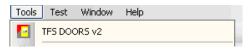
7. Expand Work Items folder, then expand 'Team Queries folder



- **8.** Double click 'All work items' or 'My work items' or enter in your own query to retrieve work items from TFS
- **9.** When the query has completed your work items will be displayed in the main window of Visual Studio

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II	в	drstest				32	Task		Proposed	John Norris	Setup: Migration	nc	🖃 🖓 drstest
	13	drstest				33	Task		Proposed	John Norris	Setup: Migration	nc	Work Items
	13	drstest				34			Proposed	John Norris	Setup: Set Che	:k-	E- D Team Queries
	17	drstest				35			Proposed	John Norris	Setup: Send ma		- 📑 Active Bugs
	13	drstest				36			Proposed	John Norris	Setup: Create F		- 🚮 All My Team Project Work Items
	23	drstest				37	Task		Active	John Norris	Create Vision St	at 🗾	- 🔄 All Tasks
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- **10.** Select any workitem in the list and DOORS integration controls will appear within the workitem form.
- **11.** To start the integration Floating Menu goto to the Tools menu and select 'DOORS TFS...' option



12. This will activate the DOORS TFS Floating Menu.

DOORS TFS Menu
TFS DOORS: Create Tasks DOORS: Linking
Current Query Results
Document: All Work Items
WorkItems: 422 Selected: 1
Items To Synchronize
Current O Selected O All In Results
Start Cancel Close

Note If The Integration is executed before Work Items have been displayed the integration will not load and the following message will appear

TFS DOORS X
Unable to Locate Any Displayed TFS WorkItems
Please Login To Team Explorer And Execute A WorkItem Query
Restart the DOORS TFS Integration upon Query Completion
OK

6

Creating Links:

There are several methods to create a link. You can drag and drop and drop using the DOORS Icon Anchor or DOORS Links Tab paner. You can create multipl links using the Links Tab of the TFS Menu Dialog

Create Links Using DOORS Icon Anchor



Above appears a DOORS icon on the WorkItem Task form as part of the header banner. This icon is used as an anchor point where you can drag and drop to DOORS to make a new link. Just grab the icon and drag over to a DOORS object and drop.

All Vira Actions (Concerners) selected). All Viran Type State Actions Ac	Ele Ed	k Items [Results] - Microsoft it Yow Buid Teom Iools III - J III → III → IIII III - R R G → IIII → IIII	Tegt Window He ⊾ Ba} ≣ ≌ 9		93 (3 ¢3 d	Q 🖅 🖄 X		Tesm Enderse
Query results: a/r feasible and it (currently seecond). 2 Rev / Area path. 10 Work Item Type State Assigned to Tale 15 dratest 31 Task Proposed John Horris State: Farming 13 dratest 33 Task Proposed John Horris State: Farming 13 dratest 33 Task Proposed John Horris State: Farming 13 dratest 35 Task Proposed John Horris State: Farming 13 dratest 36 Task Proposed John Horris State: Farming 13 dratest 36 Task Proposed John Horris State: Farming 13 dratest 37 Task Active John Horris State: Farming Work Items 13 dratest 37 Task Active John Horris Gradewide Horizon State 14 Horizon Action Task Proposed John Horris Gradewide Horizon Action 14 Task Task Proposed John Horris Gradewide Horizon Action Gradewide H							+ ×	
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Note Reverse Drag Drop from DOORS is not activated at this time., use the DOORS Links Tab instead.

DOORS Links Tab Panel

-	History Links DOORS	5 Links Attachments Details			
ID	Type	Title	Description	Comments	Navigate
0	DoorsLinkType	ID: UC1 Module: Novembe	new use case text 2:51	vstfs:///WorkItemTrac	
1	DoorsLinkType	ID: UC5 Module: Novembe	this is a test for sectio n1	vstfs:///WorkItemTrac	
2	DoorsLinkType	ID: UC7 Module: Novembe	this is an inserted section	vstfs:///WorkItemTrac	Attributes
3	DoorsLinkType	ID: UC11 Module: Novemb	insert at pos 4	vstfs:///WorkItemTrac	
4	Workitem Hyperlink	doors://JOHN3:36679/?ver	doors://JOHN3:36679/?version=		Synchronize
5	Workitem Hyperlink	doors://JOHN3:36679/?ver	doors://JOHN3:36679/?version=	vstfs:///WorkItemTrac	
					Delete

A new Custom Tab panel can been added to workitem forms that will display links to DOORS targets. You may creates links for the workItem by Drag And Drop using this panel.

- 1. Select a **Work Item** from the TFS Query Results list and open the DOORS Links Tab.
- 2. Click the Mouse in the List area and Drag and Drop onto any DOORS object that you have **WRITE/EDIT ACCESS** to. If possible links will be created on both items in both directions.
- **3.** Or Select a DOORS object and Drag and Drop onto the List area. If possible links will be created on both items in both directions.
- **4.** In the links list area a new link will added to the existing list. The WorkItem is SAVED automatically.

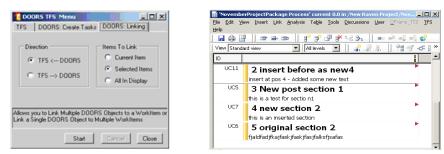
In DOORS an External link is created and any attributes specified in the Configuration Module will be imported into DOORS and assigned to the External Link Attributes (NOT the DOORS Object Attributes). Use the DOORS Link Editor to view the imported values.

ID	Car user requirements parsed in		
TFS-U	^{?7} 🍯 3 Requirements		
TFS-U	🕫 🎽 3.1 Capability Requirements	External Links 🕨 d3 v	vork item
TFS-U	^{୧୭} 🎽 3.1.1 Carrying Capacity		
TFS-UR	10 📙 3.1.1.1 Number of people		

Note The DOORS External link is not Navigable back to Visual Studio do to it being a NON Supported feature of MicroSoft Work Item URI Navigation in Version 2005 and 2008.

Create Multiple Links

Location: DOORS TFS Menu DOORS:Linking Tab



DOORS: Linking tab option allows you to create multiple links at once between the TFS Results view and the DOORS Display.

Direction

- TFS From DOORS
- TFS To DOORS

Items To Link

- Current Item
- Selected Items
- All In Display

To link 1 or more DOORS objects to a single workItem select the TFS <--- DOORS option in the 'Direction' section. Select the workItem you want to link to in the query results document, in DOORS select the object or objects you want to link from. on the Link Menu Dialog select the appropriate 'Items To Link' option. Select 'Start', a confirm prompt will appear indicating the number of links to be created

To link 1 or more WorkItems to a single DOORS object select the TFS ---> DOORS option in the 'Direction' section. Select the DOORS object you want to link to in the DOORS module, in Visual Studio select the workItem or workItems you want to link from. On the Link Menu Dialog select the appropriate 'Items To Link' option. Select 'Start', a confirm prompt will appear indicating the number of links to be created.

Note After starting the link operation if you receive a dialog indicating the inablility to select or locate a DOORS object. Reselect your DOORS object or objects making sure the DOORS module is the current Active module and try the operation again.

Synchronize: Multiple WorkItems

DOORS TF5 Menu Image: Constraint of the second	약 All Work Items (Itesuits) - Microsolt Visual Studio Efe Edt Yew Build Team Tools Teg Window Heb [3] '와 '알 웹 - 및 '왕 1월 1월 1월 1월 일 47 - (* -) 》 비 비 약 대학 전 양 1월 20 우 및	>
Current Query Results Document: All Work Items	Image: State	Team Expl 4 ×
WorkItems: 422 Selected: 1	Image: Proposed Proposed John Norrs Step: Set-Set-Set-Set-Set-Set-Set-Set-Set-Set-	 igs.tfsmadeea igs.tfsmadeea igs.fsmadeea ig
Items To Synchronize © Current C Selected C All In Results	20 dxtext 33 Task Proposed John Norris Stept: Stept 20 dxtext 34 Task Proposed John Norris Stept: Stept 21 dxtext 35 Task Proposed John Norris Stept: Step:	⊟ 🌽 Work ⊟ 🍃 Te
Allows you to synchronize Selected WorkItems or All WorkItems in current Results View	24 dratest 39 Task Proposed John Norris Greate Per Line 10 dratest 40 Task Proposed John Norris Greate Qui y 1	
Start Cancel Close	output - بالا بالا بالا بالا بالا بالا بالا با	Tea Solu

This menu allows you to synchronize the workItems currently displayed in the Query Results window. You can synchronize the single current workitem, selected or All workitems in a Query. This provides the capability to query for any group of workitems and synchronize only those specific work items

Current Query Results Section

- Document: Name of current Query Results Document
- WorktItems: Number of WorkItems in Query Results
- Selected: Number of WorkIems selected using click or shift click

Items To Synchronize Section

- Current: Selected WorkItem
- Selected: WorkIems selected using click or shift-click
- All in Results: All WorkItems in Query Results

After running the desired query, Set the "Items To Synchronize Section" to indicate which workitems in the current query results document you wish to synchronize. Select the 'Start' button, a confirmation prompt should appear indicating how many workitems are about to be synchronized. Selecting 'OK' will start the operation and will also open a 'Report Dialog" to display messages and warnings for each link being synchronized.

Note A larger number of WorkIems and their links being synchronized can take many minutes to complete which can be due to where the links target

Synchronize Work Items

resides in DOORS and also to network and processor throughput speeds. Also for each workitem link their is a corresponding DOORS link which must also be synchronized effectively doubling the amount of links.

Syncrhonize: Single WorkItem

ID	Туре	Title	Description	Comments	Navigate
0	DoorsLinkType	ID: UC1 Module: Novembe	new use case text 2:51	vstfs:///WorkItemTrac	
1	DoorsLinkType	ID: UC5 Module: Novembe	this is a test for sectio n1	vstfs:///WorkItemTrac	and the second
2	DoorsLinkType	ID: UC7 Module: Novembe	this is an inserted section	vstfs:///WorkItemTrac	Attributes
3	DoorsLinkType	ID: UC11 Module: Novemb	insert at pos 4	vstfs:///WorkItemTrac	
4	Workitem Hyperlink	doors://JOHN3:36679/?ver	doors://JOHN3:36679/?version=		Synchronize
5	Workitem Hyperlink	doors://JOHN3:36679/?ver	doors://JOHN3:36679/?version=	vstfs:///WorkItemTrac	

Selecting the 'Synchronize' button will attempt to synchronize all of the links shown in the display. Any errors or warnings will be displayed in a Report Window that opens when synchronize begins.. If you wish to only synchronize one link use the Custom Link Edit Form which can be accessed from the standard 'Links' tab through the 'Edit' button.

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the details of this link.		Edit th	e details of this link.	
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-		LIIK	uetais	
-	Imported: DOORS Attributes 🍡 🌗			Imported: DOORS Attributes 🏻 🔶
Attribute	Value	ſ	Attribute	Value
URL	doors://JOHN3:36690/?version=2&prodID=0&urn=		URL	doors://JOHN3:36690/?version=2&prodID=0&urn=
Module	NovemberProjectPackage Process		Module	NovemberProjectPackage Process
Object Id	UC11		Object Id	UC11
Object Text	insert at pos 4		Object Text	insert at nos 4
Short Text			Short Text	
Last Modified By	john		Last Modified By	john
Last Modified On	Tuesday, November 04, 2008		Last Modified On	Tuesday, November 04, 2008
Last Synchronized On			Last Synchronized On	140004), 110101120104, 2000
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			•	
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- Expand to View Curre Imported: Current Value	ent DOORS Values View Value Real Time Report View		- Expand to View Cu	Real Time Report View
- Expand to View Curre Imported: Current Value Attribute	ent DOORS Values <u>View Value</u> Real Time Report View		 Expand to View Cunported: Current Value Attribute 	Real Time Report View
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- Expand to View Curre Imported: Current Value Attribute	ent DOORS Values <u>View Value</u> Real Time Report View insert before as new4 doors://JOHN3.36690/?version=2&prodID=0&um	- - -	Expand to View Cu iported: Current Value Attribute Object Heading URL	Real Time Report View Value Insert before as new4 dosrs://JOHN3.36690/?version=28prodID=08urr
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- Expand to View Current Imported: Current Value Attribute Object Heading URL Module Name Object Identifier	ent DOORS Values <u>View Value</u> Real Time Report View insert before as new4 doors://UNN3.356907/version=28prodD=08um NovemberProjectPackage Process UC11	۔ 	Expand to View Cu ported: Current Value Attribute Object Heading URL Module Object Id	
- Expand to View Curre Imported: Current Value Attribute Object Heading URL Module Name Object Identifier Object Identifier	ent DOORS Values View Value Real Time Report View Value insert before as new4 doors://JD1N3.36690/?version=2&prodD=0&um Novembef7oeclPackage Process UC11 x2 Inset before as new4@inset at pos 4		Expand to View Cu ported: Current Value Attribute Object Heading URL Module Object Id Object Text	Real Time Report View Value Insert before as new4 dors://DOHN3:3669/Version=28prodID=08urr NovemberProtetPackage Process
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- Expand to View Curre Imported: Current Value Attribute Object Heading URL Module Name Object Identifier Object Identifier	ent DOORS Values View Value Real Time Report View Value insert before as new4 doors://JD1N3.36690/?version=2&prodD=0&um Novembef7oeclPackage Process UC11 x2 Inset before as new4@inset at pos 4	1	Expand to View Cu nported: Current Value Attribute Object Heading URL Module Object Text Short Text Last Modified By	Real Time Report: View Value Insert before as new4 doors://JOHN3:36690(Prersion=28prodID=08urr NovemberProjectPackage Process UC11 insert at pos 4 - Added some new text john
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- Expand to View Curre Imported: Current Value Attribute Object Heading URL Module Name Object Identifier Object Heading and Objec Created On	ent DOORS Values <u>View Value</u> Real Time Report View Value insert before as new4 doors://JOHN3.365907/version=28prodD=08um NovemberProjectPackage Process UC11 t2 Insert before as new4linsert at pos 4 Tuesday, November 04, 2008	1	Expand to View Cu apported: Current Value Object Heading URL Object Id Object Id Object Text Short Text Last Modified By Last Modified On	Real Time Report: View Value Insert before as new4 doors://JOHN3:36690/Iversion=28prodID=08urr NovemberProjectPackage Process UC11 insert at pos 4 - Added some new text john Monday, January 12, 2009
- Expand to View Current Imported: Current Value Diject Heading URL Module Name Diject Identifier Diject Heading and Diject Created On Last Modified On	ent DOORS Values View Value Real Time Report View Value insert before as new4 insert before as new4 NovemberFloceErPackage Process UC11 X.: 2 nest before as new4imsert at pos 4 Tuesday, November 04, 2008 Tuesday, November 04, 2008	1	- Expand to View Cu nported: Current Value Attribute Object Heading URL Module Object Text Object Text Last Modified By Last	
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- Expand to View Current Imported: Current Value Diject Heading URL Module Name Diject Identifier Diject Heading and Diject Created On Last Modified On	ent DOORS Values View Value Real Time Report View Value insert before as new4 insert before as new4 NovemberFloceErPackage Process UC11 X.: 2 nest before as new4imsert at pos 4 Tuesday, November 04, 2008 Tuesday, November 04, 2008		- Expand to View Cu nported: Current Value Attribute Object Heading URL Module Object Text Object Text Last Modified By Last	

+ .

IAccess the DOORS Link Edit form from the standard workitem 'Links' tab panel. Clicking on the plus (+) button will expand the form and retrieve current data from the doors target object.

When the form expands it compares the stored Link Attribute data to the current DOORS object data – if there is a difference the stored data items will highlite in "Red" as shown above. At this time the "**Synchronize**" button is enabled and if selected then the link data is updated from DOORS.

Synchronize Warning And Error Messages

Synchronize: Suspect Link Flag does not exist in DOORS

DOORS	
?	The suspect flag attribute does not exist and could not be created automatically. You may CANCEL the synch operation or CONTINUE. By CONTINUING, the synch operation will skip any object that does not have a
	suspect flag attribute and a warning message will be logged.

Synchronize: CANCELED

CANCEL can be invoked from either the Menu dialog or from the Report Dialog.



Synchronize: Completed



Version 2 displays multi item operation messages using dialog that pops up when you do a synchronize operation or if there were errors on a link drag n drop or delete operation.

The below example shows some of the messages and format when things go wrong. such as doors links using link types other than the DOORS Link Type in this case.

Viewing Synch Results in DOORS

1. Locate the DOORS requirement object and then use the "Edit Links" option to view the External links.. Select the appropriate external link and select the "Details" button. This will open the link attribute edit window.

In/Out	Module/Description	Baseline	Object Heading/Text	ID	Link Modu
🕩 Ext Out	mms1 test work item		vstfs:///WorkItemTracki	i	N/A
1	🗧 External Link Propertie	es - DOORS		_ 🗆 >	<u><</u>
	Attribute	Value	•	▲	1
	Risk	Medi	um		
	Running cost				
	Safety	No			
	temp				
	Test	state	1		
	6₀ ∕ testAtr				
	TFS Suspect Flag	_	WorkItem_Type: Task		
	TFS_State	Fixed			1
	TFS_WorkItem_				
•	Verifiability			-	11
<u> </u>					
					Edit Exte

Note Current integration version stores TFS field data values in DOORS as a Text value. You may manually create the DOORS attribute to be any type you prefer to match the same type as on the work item but be aware that during Synchronize operation no type verification is executed and if the data is an invalid format or value, errors or warnings may occur.

2. Scroll down to the "**TFS Suspect Flag**" and select. Double click or select the edit option to open the Attribute dialog. Each imported Attribute will be displayed in a list including a difference Mark up indicating what changed for each value..

In/Out	Module/Description	n	Baseline	Object Heading	/Text	ID	Link Module	Link Mod
🕪 Ext Out	mms1 test work iter	n		vstfs:///WorkIte	emTracki	-	N/A	N/A
🖣 External Lin	k Properties - DO	DORS						
Attribute		Value			C Ottrib	uto Valu	ie - DOOR5	
Risk		Medium			Accilo		IE - DOORS	
Running cos	st				Name: 🚺	FS Susp	ect Flag	
Safety		No				-		
temp					Type: 1	ext		
Test		state 1			⊢Value:—			
& testAtr						t		
TFS Suspec	t Flag	TFS_Sta	ate: OpenFi	xedITFS_Wo				
TFS_State		Fixed			TFS SI	ate: Op	enFixed	
TFS_WorkIt	em_Type	Task					_Type: Issue]	Task
Verifiability		Not che	cked				- 0	

Note To manually CLEAR SUSPECT just set the "TFS Suspect Flag" attribute to "Default" value and save. Users may also use one of the following popup or menu options.

• Execute from DOORS 'TFS' Tool Bar Menu.



• Execute by selected the object and activate the "Right Mouse" button to show the pop up menus.

	3.1.1.1 Number of peop	Clear Suspicion		_
l	Four average size adults shall b	Clear TFS Suspect Link 📃 🕨	Object	rs. This level i
	comfort is defined as being eq <u>ui</u>	valent to the standard of con	All Objects	he top 30% of
	cars produced in 1993. The top	level of cars are those in the	nrice range £13.	000 to £30.00



Message Ouput Display and Logging

Report Dialog:

1	tfsdrs_ReportDialog	×
	Processing defect4	
	Processing Link SYSTEM2 5	
	WABNING: SetLinkProperty - Property: 'Module' does not exist for Link	
	WARNING: SetLinkProperty - Property: 'Text' does not exist for Link	
	WARNING: SetLinkProperty - Property: 'Short Text' does not exist for Link	
	WARNING: SetLinkProperty - Property: 'Last Modified By' does not exist for Link	
	WARNING: SetLinkProperty - Property: 'Last Modified On' does not exist for Link	
	WARNING: SetLinkProperty - Property: 'Last Synchronized On' does not exist for Link WARNING: SetLinkProperty - Property: 'Last Synchronized On' does not exist for Link	
	WARNING: SetLinkProperty - Property: Last Synchronized Unit does not exist for Link Processing Link	
	WARNING: SetLinkFroperty - Property: 'Module' does not exist for Link	
	WARNING: SetLinkProperty - Property Text does not exist for Link	
	WARNING: SetLinkProperty - Property: 'Short Text' does not exist for Link	
	WARNING: SetLinkProperty - Property: 'Last Modified By' does not exist for Link	
	WARNING: SetLinkProperty - Property: 'Last Modified On' does not exist for Link	
	WARNING: SetLinkProperty - Property: 'Last Synchronized On' does not exist for Link	
	WARNING: SetLinkProperty - Property: "Last Synchronized On' does not exist for Link	
	No Changes to WorkItem: Skipping DOORS Synch	
	Syncrhonize Completed	

Version 2 displays multi item operation messages using a dialog that pops up when you do a synchronize operation or if there were errors on a link drag and drop or delete operation.

The above example shows some of the messages and format when things go wrong. such as doors links using link types other than the DOORS Link Type in this case.

Visual Studio Output Window:

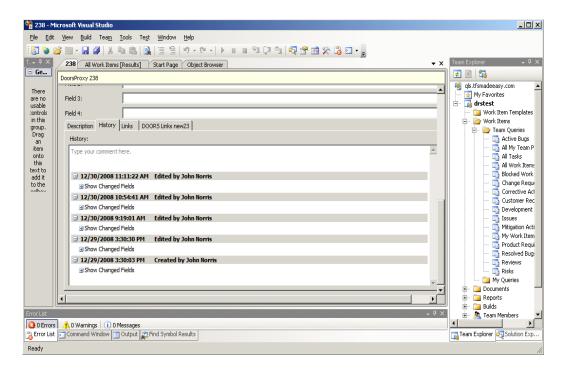
Output		
Show output from:	DOORS TFS	- 🖗 🚑 🖳 🔫 🗨
Τ		
T		
🚔 Error List 🖃 Qu	tput 🔊 Find Symbol Results	
Ready		

Error and log messages are also displayed on the Visual Studio Output window. To display goto toolbar menu 'Edit->Other Windows->Output'



Detecting Suspect Changes

Link Attribute Change History



One of the added benefits of the DoorsProxy item is that an automatic change History is kept by the TFS system

After each synchronize operation, DOORS data that is stored in TFS could have changed. Since the data is stored using a variant of the TFS workItem type it is possible to

create query reports that show what data has changed and which Workitems are impacted.

238 All Work Items	[Results] Start Page Object Browser
DoorsProxy 238	
URL:	doors://JOHN3:36690/?version=2&prodID=0&view=00000002&urn=urn:telelogic::1-48cf34147ef6032d-0-11
Object Id:	SysReqdds_11
Module:	demo test
Object Text:	This is sample object text for testing and demo use for the TFS DOORS Integration dversion added more te
Short Text:	
Last Modified By:	john
Last Modified On:	Wednesday, December 17, 2008
Last Synchronized On:	12/30/2008 11:18:05 AM
Suspect Flag:	
Source ID:	31
Source URL:	vstfs:///WorkItemTracking/WorkItem/31
State:	Active
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Each DoorsProxy item contains the 'SourceId' and 'SourceUrl' of the workItem they are associated with. Using these fields a query can be constructed to SELECT all Items of type DoorsProxy WHERE "Last Modified On" >= someDate; the results of this query can be combined with another query to SELECT all items of type "Task" WHERE ID= DoorsProxy.SourceId

More complex reports can be created to show which attributes changed and how.