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Version	Name	Date	Comment
0.0	Viewpoint Systems	20Apr2010	Original
0.1	Viewpoint Systems	point Systems 15Jun2010 Added OS and LabVIEW version inform	
	Added Installer Images		Added Installer Images
0.2	Viewpoint Systems	27Jul2010	Updated installer images
0.3	Viewpoint Systems 12/7/2012 Updated for version 1.7		Updated for version 1.7.x

# **READ THIS BOX**

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We do intend to make this product as robust as make sense for us, so any feedback on issues would be appreciated. Please send comments and questions to <u>TSVNTbar.support@viewpointusa.com</u>.

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# Viewpoint TSVN Toolkit User Guide

## TortoiseSVN Source Control Interface for LabVIEW®

## **1** Description

The TSVN Toolbar provides seamless integration to TortoiseSVN from LabVIEW with access to TortoiseSVN commands Get lock, Commit, Update, Add, Break lock and more.

## **2** Installation

See the **Viewpoint TSVN Toolkit Installation Guide** for information on installing the Toolkit. Once installed, LabVIEW must be restarted for the changes to take effect.

Also see Viewpoint TSVN Toolkit Getting Started for information on using the Toolkit the first time.

# 3 VSI TSVN Toolkit Features

#### 3.1 Project Explorer Icon Overlays

Icon overlays display the SVN status of working copy files from any repository in the project, including autopopulating folders and non-NI file types.

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Figure 1 - Icon Overlays

#### 3.2 Context Menu

Access TortoiseSVN functions from the context menu by right-clicking a single item or multiple items.

Any two selected items can be diffed as well.

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Viewpoint Tools Demo 2012.lvp	oroj * - Project Explorer		
File Edit View Project Ope	rate Tools Window Help		
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📄 🕎 My Computer			
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🦷 📈 Set Enable State	on Multiple Controls.vi	C:\Users\emetzler\D	
	Open	\Users\emetzler\D	
UI - Read Strea	Explore	\Users\emetzler\D	
Type Definitions	Show in Files View Ctrl+F		
All FPGA Config		Users\emetzler\D	
Error Type.ctl	Print	Users\emetzler\D	
	Run	Users\emetzler\D	
Raw Values.ctl	Find	Users\emetzler\D	
Variable Refere	C	Users\emetzler\D	
UI Main.vi	Save Ar	\Users\emetzler\D	
🖶 🚏 Dependencies 🖉	Dave AS		
🖶 💑 Build Specification	Unit Tests	•	
Error Handlers	SVN Update		
🖶 📁 Globals	SVN Commit		
🕀 📁 Support VIs	SVN Get Lock		
🕀 📁 RT Loops	VSI TSVN Tools	Show log	
Type Definitions	Analyze VIs	Repo-browser	
RT Main.vi	Arrange By	Check for modifications	
	Anange by	Update to rev	
	Remove from Project	Revert	
	Kename F2	Remove	
	Replace with	Ignore by Name	
	Properties	Properties	

Figure 2 - Context Menu

#### 3.3 Toolbar

These actions are different from the legacy version of this product in that they perform actions on the entire WC that the project file resides in. This allows for more atomic operations. For operations in specific files, use the Project Explorer context menus.

If the toolbar is displayed too far to the right, right-click on the toolbar and uncheck unneeded toolbars.

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#### Figure 3 - Toolbar

The toolbar SVN commands operate on the root working copy folder. Use the context menu for individual file operations.

- **Opens VI Dashboard**
- Refreshes icon overlays of the visible items in the Project Explorer
- Update 6
- **7** -Commit
- Show log 8⊒
- Repo-browser <u>R</u>.
- Ê, Check for modifications
- 9 Revert
- 2 Get lock
  - Release/Break lock
- ٠ Add

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# 4 VI Window Features

#### 4.1 File Menu

VI Dashboard can be launched and individual VI commands can be performed from File>>VSI TSVN Toolkit.

ſ	😰 UI - Initiate Connection.vi F	Front Panel on Vie	wpoint Tools Demo 2012.lvproj/M			
	File Edit View Project	Operate Tools	Window Help			
	New VI	Ctrl+N	<mark>────────────────────────────────────</mark>			
	New					
	Explore					
	VSI VI Dashboard					
	VSI TSVN Tools	۱.	Diff			
	Open	Ctrl+O	Log info			
	Close	Ctrl+W	Repo-browser			
	Close All		Check for modifications			
	Save	Ctrl+S	Update			
	Save As		Commit			
	Save All	Ctrl+Shift+S	Get lock			
	Save for Previous Version		Release/Break lock			
	Revert		Update to revision			
	Revert Create Project		Revert			
	Open Project		Add			
	Save Project		Delete (keep local)			
Close Project		Settings				
	Page Setup		TSVN Tools About			
	Print					
	Print Window	Ctrl+P				
١	VI Properties	Ctrl+I				
	Recent Projects	•				
	Recent Files	•	igurea IP Address			
	Exit	Ctrl+Q				
	The Support Vis		-			

Figure 4 - File Menu

Note: Update and Revert will also revert the VI in memory to the updated or reverted version on disk. Any unsaved changes will be lost on Update and all changes will be lost on Revert.

#### 4.2 Tools Menu

Individual VI commands can be performed from Tools>>VSI TSVN Toolkit

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UI Main.vi Front Panel on Viewpoint T	ools Demo 2012.lvproj/My Computer rev. 205	10. M. A.				
File Edit View Project Operate	Tools Window Help					
수 장 🔵 🔢 15pt Dialog	Measurement & Automation Explorer					
	Instrumentation					
LabVIEW FPGA Control on Co	Real-Time Module					
	VSI TSVN Toolkit	Update				
Connection Settings	FPGA Module	Commit				
	Compare 🕨	Diff Diff with previous Show log Repo-browser				
	Merge 🕨					
	Profile 🕨					
Connect	Security 🕨					
Current EPGA Control Mode	User Name	Revision graph				
	Build Application (EXE) from VI					
Safe State	Convert Build Script	Update to revision Rename Delete (close file) Delete (keep local) Revert Get lock				
	Source Control					
Switch Target to Safe State	VI Analyzer					
System Status	LLB Manager					
	Import 🕨					
	Shared Variable	Release lock				
	Distributed System Manager	Add				
	Find VIs on Disk	Add to janore list				
	Prepare Example VIs for NI Example Finder	Remove from ignore list				
	Remote Panel Connection Manager					
	Web Publishing Tool	SVN Properties				
	Actor Framework Message Maker	TSVN Settings				
	Create Data Link	TSVN Help				
	Create New TLB` Applicaiton	TSVN About				
	Find LabVIEW Add-ons	VSLTSVN Toolkit Settings				
	Navigate to Requirements Gateway	About VSLTSVN Toolkit				
	Smart Palette	Update Control Co				
	VI Package Manager					
	Advanced					
	Options					

Figure 5 - Tools Menu

## 5 VI Dashboard

The VSI VI Dashboard is a tool to manage multiple files at once. An action can be applied to a selected file list. For example, suppose several VIs have indirect changes arising from the rippling effect of a redefinition of enum, typedef clusters, and so on. With the Dashboard, you can select this list of changed VIs, and apply an action to all at one step. Use the button bar or right click menu interface.

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😰 VSI VI Dashboard							
Actions Settings SVN Utilities Help							
Rfrsh View Save Prot Doc Di	Rfrsh View Save Prot Doc Diff Info RBwse Mods? Updte Cmmt Lock Unlock UpRev Rvrt Add Del All Targets					\ <b>.</b> /	
	s 🔒 🔍		<b>x</b> 9 9	×	All in Memory	•	V
VI Name	SVN Status	Repo Path	Project	VI Path			
UI Data.ctl	Normal	file:///C:/repos/ViewpointDe	Viewpoint Too	C:\Users\emetz	ler\Documents\Train	ing\NITS 2012	?\Viewp
Control Configuration.ctl	Normal	file:///C:/repos/ViewpointDe	Viewpoint Too	C:\Users\emetz	ler\Documents\Train	ing\NITS 2012	?\Viewp
Global - All UI Loop Stop.vi	Normal	file:///C:/repos/ViewpointDe	Viewpoint Too	C:\Users\emetz	ler\Documents\Train	ing\NITS 2012	?\Viewp
User Event - Stop.lvlib:Create Use	Normal	file:///C:/repos/ViewpointDe	Viewpoint Too	C:\Users\emetz	ler\Documents\Train	ing\NITS 2012	?\Viewp
Message Queue.lvlib:Message Cl	Normal	file:///C:/repos/ViewpointDe	Viewpoint Too	C:\Users\emetz	ler\Documents\Train	ing\NITS 2012	Viewp
User Event - Stop.lvlib:Destroy Us	Normal	file:///C:/repos/ViewpointDe	Viewpoint Too	C:\Users\emetz	ler\Documents\Train	ing\NITS 2012	2\Viewp <sup>⊨</sup>
Message Queue.lvlib:All Message	Normal	file:///C:/repos/ViewpointDe	Viewpoint Too	C:\Users\emetz	ler\Documents\Train	ing\NITS 2012	2\Viewp
Message Queue.lvlib:Obtain Mes	Normal	file:///C:/repos/ViewpointDe	Viewpoint Too	C:\Users\emetz	ler\Documents\Train	ing\NITS 2012	2\Viewp
Message Queue.lvlib:Dequeue M	Normal	file:///C:/repos/ViewpointDe	Viewpoint Too	C:\Users\emetz	ler\Documents\Train	ing\NITS 2012	2\Viewp
Error Type.ctl	Normal	file:///C:/repos/ViewpointDe	Viewpoint Too	C:\Users\emetz	ler\Documents\Train	ing\NITS 2012	2\Viewp
Set Enable State on Multiple Con	Normal	file:///C:/repos/ViewpointDe	Viewpoint Too	C:\Users\emetz	ler\Documents\Train	ing\NITS 2012	2\Viewp
Raw Values.ctl	Normal	file:///C:/repos/ViewpointDe	Viewpoint Too	C:\Users\emetz	ler\Documents\Train	ing\NITS 2012	2\Viewp
Message Queue.lvlib:Enqueue M	Normal	file:///C:/repos/ViewpointDe	Viewpoint Too	C:\Users\emetz	ler\Documents\Train	ing\NITS 2012	2\Viewp
Message Queue.lvlib:Create All N	Normal	file:///C:/repos/ViewpointDe	Viewpoint Too	C:\Users\emetz	ler\Documents\Train	ing\NITS 2012	2\Viewp
Message Queue.lvlib:Enqueue Er	Normal	file:///C:/repos/ViewpointDe	Viewpoint Too	C:\Users\emetz	ler\Documents\Train	ing\NITS 2012	2\Viewp
Check Loop Error.vi	Modified	file:///C:/repos/ViewpointDe	Viewpoint Too	C:\Users\emetz	ler\Documents\Train	ing\NITS 2012	Viewp
UI Error Handler - Monitoring.vi	Normal	file:///C:/repos/ViewpointDe	Viewpoint Too	C:\Users\emetz	ler\Documents\Train	ing\NITS 2012	2\Viewp
UI Error Handler - Message Hand	Normal	file:///C:/repos/ViewpointDe	Viewpoint Too	C:\Users\emetz	ler\Documents\Train	ing\NITS 2012	Viewp 👻
Ready/Idle				All Targe	ts		

#### Figure 6 - VI Dashboard

The VSI VI Dashboard works with multiple SVN repositories and multiple LabVIEW targets. The visible list of VIs can be sorted and filtered. Use the usual click, ctrl-click, and shift-click selection techniques to choose the entries on which to apply the action.

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