



# Source Code Control using Visual SourceSafe in LabVIEW 8.x

LabVIEW 8 integrates source code control (SCC) into the LabVIEW 8 (LV8) project window. The usual check-in and check-out capabilities are available for VIs in the project by clicking on the VI and choosing items from the options (right-button) menu.

LabVIEW 8 supports many SCC providers. At Viewpoint Systems, we use Microsoft's Visual SourceSafe (VSS). In the past, we found that VSS slows down when too many projects are held in one VSS database. So, we now create a new database for each project or company. This article shows how to configure LV8 to integrate with different VSS databases. If you support many projects, as we do, your development faster with multiple databases. These steps apply to VSS 6.0 and LV8. Similar steps would be used for VSS 2005.

In this description, we need to discuss two file folders. The first is the location of the VSS database (*i.e.*, the repository of files checked into VSS). The second is the location of the working files (*i.e.*, the files checked out of VSS for editing). The first folder is called Project\_SCC, and the second is called Project\_Files. You can change these names to whatever you want, but they need to be used consistently in the configuration process or LV8 and VSS will not match.

- 1) Create a VSS database (SSADMIN.EXE tool in 6.0 or VSS Database Wizard in 2005). Call the VSS database ProjectSS. You can name this whatever you want. Point this to a folder for the VSS database. (Either you already created the folder or you can let VSS create it.) For example, this folder might reside at c:\Projects\VSS\Project\_SCC. Close the Admin tool.
- 2) Create the working folder. For example, c:\Projects\Sources\Project\_Files.
- 3) Open VSS. Select the database ProjectSS. Create a project in this database. One way to do this is to right-button on the project root and select the 'Create Project...' item. In this example, the name would be Project\_Files. Note that the folder path is not used, just the final folder name.

- 4) Set the working folder for the database to the Project\_Files folder by right-clicking on the project in the VSS project tree, selecting 'Set Working Folder...', and browsing to the working folder. In this example: c:\Projects\Sources\Project\_Files. Close VSS. Note that the ProjectSS is now the active database, and must remain so during configuration.
- 5) Open LV8, and go to SCC Configuration. You can get there by selecting the menus 'Tools \ Source Control \ Configure Source Control...'
- 6) Set 'Source Control Provider Name' as Microsoft Visual SourceSafe.
- 7) Press the 'Change' button to select the project. Because ProjectSS is still the active database, you will see the project tree that you created in step 3. Click on the project you wish to use, Project\_Files in this example.
- 8) Use the 'Browse' button to select the actual working folder location: c:\Projects\Sources\Project\_Files. OK out of all the dialog boxes.

You can now use SCC from the project window. Inside the Project window, any VI you create and save into the working folder location (c:\Projects\Sources\Project\_Files) can be checked in and out by using the right button options 'Add to Source Control ...', 'Check in', 'Check out'.

Whenever you perform a check in operation, the VSS database in the folder c:\Projects\VSS\Project\_SCC is updated.

Of course, subfolders in the working folder are useful for organizing your files. These subfolders can be mirrored into the VSS project simply by executing 'Add to Source Control ...' on VIs in the subfolder. VSS creates subfolders in the VSS project.

By managing your multiple projects in several VSS databases, you provide more granularity in project maintenance and your development speed will be enhanced.

# National Instruments Training

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## C# Code Challenge

Sadly we received no correct entries for our last code challenge, hence our gift certificate has doubled to \$100 for this issue.

Goal: Design a method to sort a list of objects on any public field defined in that object.

Scenario: Given a `System.Collections.Generic.List<Any Object>` we want to use the built in `List.Sort` function to sort the list, but pass in which public field to sort the list of objects on.

Rules: One must use `List.Sort()` to perform the actual sorting. The solution must be written in .NET 2.0 or higher. A test solution must be provided using NUnit or VSTS. The object you define to sort on must have multiple public and private fields, and it is illegal to try and sort on a private field.

Read submission rules at: [www.ViewpointUsa.com/CodeChallenge/spring2007.php](http://www.ViewpointUsa.com/CodeChallenge/spring2007.php). Our prize gift certificate is \$100 and will be awarded to the winner prior to publication of our next issue.

## Corrections: For the Record

In our Winter 2007 issue our section, "Viewpoint is Growing, Again", Lewis Smith graduated with a degree in Chemical Engineering from the University of Delaware not a degree in Chemistry.

## Viewpoint News Your Informational Resource

Next issue: XXXXXXXXXXXXXXX

# Viewpoint is Growing, Again!

Viewpoint continues to grow in the Rochester/Buffalo area and we are always on the lookout for someone who has what it takes. Are you ready to embark on a journey of self discovery and adventure at every turn? Current job descriptions for openings can be found on our website [www.ViewpointUSA.com/careers.php](http://www.ViewpointUSA.com/careers.php)



Brad Roy joined Viewpoint as a Software Engineer in January 2007. Brad just graduated from RIT with a BS in Computer Science and brings his prior Co-Op experience from Abiomed to his new position. Outside of work Brad enjoys playing soccer and traveling.



Richard Augsbury joined Viewpoint as a Software Support Specialist in May 2007. Prior to joining Viewpoint worked for Harris RF, and brings his skills in systems, network, and database administration to his new position. Outside of work Richard enjoys high speed rollerblading and volunteering for the RCSD at East High School.



Muldair Moor joined Viewpoint as a Software Engineer in February 2007. Before joining Viewpoint Muldair specialized in creating customized database systems for SunGard Higher Education, and will certainly use those skills in her new position. Muldair is very active in soccer (women's and coed), enjoys reading for pleasure, general fitness, painting, drawing, and sculpting in her spare time.



James Dyer joined Viewpoint as a Vice Present of Sales in May 2007. In James' new role his experience as Director of Sales at Frontier and his MBA from St. John Fisher will undoubtedly serve him well. Outside of work James enjoys golfing, football, cooking, and spending time with his wife and their golden retriever.



Peter Caroccio joined Viewpoint as a Systems Engineer in March 2007. Peter has been working with LabVIEW for several years and brings his expertise in software test systems and automation from General Electric to his new position. Outside of work Peter designs and builds electric violins with his father on their website [www.electricviolinlutherie.com](http://www.electricviolinlutherie.com).



John Snyder joined Viewpoint as a Systems Engineer in January 2007. John pervious experience in the scientific laboratories of the University of Rochester has taught him how to creatively solve difficult hardware/software integration problems, and he is very much looking forward to his experience in his new position. John enjoys biking, hiking, reading sci-fi novels, and spending time with his family.



Joe Chandler joined Viewpoint as a Systems Engineer in May 2007. Joe gained his expertise in system level test and integration from Raytheon Missile Systems and looks to apply those skills in his new position. Joe collects Transformers in his spare time and in general enjoys relaxing outside of work.



Johnny Thompson joined Viewpoint as a Software Engineering Co-Op in March 2007. Johnny is currently in his fifth year of a Software Engineering Major at RIT. Outside of work Johnny enjoys football and watching sports.



Casey Rathbone joined Viewpoint as a Software Engineering Co-Op in March 2007. Casey is currently in his fourth year of a Computer Engineering Technology degree from RIT. When working or studying Casey enjoys playing soccer and riding motorcycles.



New Tech Writer

# Viewpoint News

Viewpoint News is published quarterly by  
Viewpoint Systems, Inc.  
800 West Metro Parkway,  
Rochester, NY 14623 USA.  
Phone: 585 475 9555  
Email: [newsletter@ViewpointUSA.com](mailto:newsletter@ViewpointUSA.com)

Newsletter Staff  
Editor-In-Chief: James Campbell  
Senior Editor: Benjamin Hysell  
Contributing Editor: David Moll  
Publishers: Carol Scheuer, Karen Erbe

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Engineered to Work.*

## Notes from the Editor:

Welcome to another exciting issue of the Viewpoint News! We hope you have had a chance to enjoy this fabulous spring weather.. We have been very busy preparing this latest edition of the *Viewpoint News* so that we may bring you:

**MAIN Article**— Source Code Control with Visual SourceSafe and LabVIEW 8

**Viewpoint is Growing, Again!** — Meet our newest Viewpoint Engineers and Co-Ops.

**National Instruments Training Schedule**—Check out upcoming classes taught in our beautiful training facility right here in Rochester.

**C# Code Challenge**—Do you have what it takes? A little change of pace this issue, try your hand at our C# Code Challenge.

As always, we are constantly looking for the next great challenge and we look forward to partnering with you to conquer it.

-ben  
[newsletter@ViewpointUSA.com](mailto:newsletter@ViewpointUSA.com)



800 West Metro Parkway  
Rochester, NY 14623  
ph: (585) 475-9555  
[www.ViewpointUSA.com](http://www.ViewpointUSA.com)