



# Integrating with Delphi

After you integrate Delphi with StarTeam or Versions, StarTeam or Versions runs unnoticed in the background as you work on your Delphi project files.

## ☆ NOTE

StarTeam Workstation Professional 2.1a/b, StarTeam Workstation 2.1a/b or Versions 2.0b/c must be installed prior to installing the Delphi integration. This integration works with both Delphi 2.0 and Delphi 3.

### **To install StarTeam/Versions integration:**

1. Install Delphi.
2. Install either Versions, StarTeam Workstation or StarTeam Workstation Professional.
3. Install the Delphi integration.
4. Provide source control for new or existing Delphi project files by adding them to StarTeam/Versions projects. If a StarTeam/Versions project does not exist, create a new one from the Delphi integration.
5. Use the Delphi Workgroup menu to check files in and out.

# Using Source Control for Delphi Files

Typically, Delphi project files are stored on your hard drive. Similarly, StarTeam/Versions has projects, whose working files are stored on your hard drive. Files in a Delphi project may be stored in a number of different directories. StarTeam/Versions keeps track of the working directory on a per file basis and places the files in the StarTeam subproject with the matching working directory.

You can do any of the following:

- Create a new StarTeam/Versions project to contain new or existing Delphi files
- Add new or existing Delphi files to an existing StarTeam/Versions project
- Check-in revisions to your Delphi files.
- Check-out revisions made by others to your Delphi files.
- Lock files for your exclusive use.

# Using Projects from Delphi

Team members access Delphi files under StarTeam/Versions source control by checking out files from the Delphi Workgroup menu. This copies the selected files from the StarTeam/Versions vault to the user's workstation.

Changing the association between a Delphi and StarTeam/Versions project is very simple. Once the Delphi project is open you can either use the **WorkGroup**⇒**Open Project** or **WorkGroup**⇒**New Project** command to change the association. The Open Project command changes the association to an existing StarTeam/Versions project. The New Project command changes the association to a new project that you define through the new project dialogs.

### **To log on to a StarTeam/Versions Project:**

1. Open the Delphi project.

If the Delphi project's path is found in the registry, the Log On dialog is displayed. If the Delphi project's path is not found in the registry, the Select a Source Code Control project dialog is displayed. See the following section for instructions on using this dialog.

2. Enter your user name into the Log On dialog.

If Security is active, type and confirm your password.

#### **NOTE**

Contact the project administrator for your password.

You can now Check Out or Check In files from the Delphi Workgroup menu.

### **To open an existing StarTeam/Versions project:**

1. Click Open on the Select a Source Code Control Project dialog.

If you are using StarTeam Workstation Professional, the Client Server or Local StarTeam Project dialog is displayed. This dialog allows you to select either a StarTeam/Versions project file (e.g. My Project.stp) or a remote StarTeam Server project (e.g. MyServer:MyProject). StarTeam Workstation and Versions does not support connections to StarTeam Server projects and therefore, this dialog is not displayed.

2. Select the StarTeam/Versions project to be associated with your Delphi project from the common control dialog.

The Log On dialog is displayed.

3. Enter your user name.

If Security is active, type and confirm your password.

# Using the Workgroup Menu

Use the menu bar to check files in and out and access the StarTeam/Versions source control application.

## To access the Source Control commands from the menu bar:

- Select **Workgroup** from the menu bar

The following options are displayed:

Check In File	Check in or add files to your StarTeam/Versions project that stores the source code information for the current Delphi project.
Check Out File	Check out the current or previous file version.
New Project	Select this option to create a new StarTeam/Versions project.
Open Project	Select this option to access existing StarTeam/Versions projects.
Launch StarTeam Pro (or Versions)	Select this option to launch or access the full StarTeam or Versions User Interface and refresh the project status.

## Creating a New StarTeam/Versions Project

The following series of procedures explains how to create a new StarTeam/Versions project from Delphi.

### **To create a new StarTeam/Versions project:**

1. Select **Workgroup**⇒**New Project** or click New from the Select a Source Code Control project dialog.

The New Project dialog opens.

2. Type a name for the project in the Project Name text box. The project name should reflect the nature of the project.

Use a maximum of 228 characters. Do not use forward slashes (/), backward slashes (\), or exclamation points (!).

The Project Name defaults to the Delphi project name.

3. Select the Force Default Working Directory check box to require all users to use the root subproject's default working directory for working files on their workstations.

Clear this box to allow users to specify their own working directories for these files.

4. Select the Configure Subdirectories As Subprojects check box so that all subdirectories of the project's working directory become the default working directories of subprojects. The names of the subdirectories become the names of the subprojects.

Clear this box to create no subprojects at this time.

5. The Force Default Working Directory For Subprojects check box is enabled only when you select Configure Subdirectories As Subprojects. Select this box to require all users to use each subproject's default working directory for working files on their workstations.

Clear this box to allow users to specify their own working directories for these subprojects.

6. The Security check box is selected by default, requiring passwords to log on to the project and security privileges to perform certain actions. Clear it to allow anyone access to the project. Security rights can be set in the StarTeam/Versions Team tab.

7. The Audit Log check box is selected by default so that all actions performed on the project will be logged. Clear it to disable logging events.

8. If you have StarTeam Server and plan to access this project remotely, select the Remote Access (via StarTeam Server) option button. Security becomes automatically selected.

For the file server access provided by StarTeam Workstation and Versions, select the Local Access (File Server) option button.

9. Type the name of the project database file in the File Name text box. By default, the file name has the extension .stp.
10. Type the path to the directory where you will store the project database file. StarTeam/Versions also creates the directory containing the project vault there.

Or,

Click Browse... to simplify this process.

Usually the project database file is on a network drive in a location that is accessible to all team members.

11. If you are creating this project remotely, select a server from the Server drop-down list box.

If you need to define the server:

- a. Click Servers...

The Remote Servers dialog opens.

- b. Click New...

The Remote Server dialog opens.

- c. Type a description in the Server Description text box.

This is a unique descriptive name for the server. It is case-insensitive and cannot contain colons (:).

- d. Type the address in the Server Address text box.

For example, COM\_SVR may be the address for a server using the named pipe or NetBIOS Over NetBEUI protocols, and 124.30.63.2 may be the address for a server using TCP/IP. If you have a Domain Name System (DNS) server appropriately configured, you can use the Workstation's name that StarTeam Server is running on for the TCP/IP address.

- e. Type the endpoint in the Endpoint text box.
  - f. Select the correct protocol from the Protocol drop-down list box.
12. Click Advanced... to set additional options.

The Advanced Projects Settings dialog opens.

Use it to specify:

- Defaults for the project and for project files:
  - a. Select the Defaults tab.  
The Defaults property page opens.
  - b. To stamp working files with the time the version is copied to the working directory, select Time Stamp Working File With Check-Out Time.  
Clear this box to copy the time stamp of the version along with the version.
  - c. Select the Use Mail check box to use a MAPI-compliant mail system from StarTeam/Versions. For example, if you are logged on to e-mail, others are notified if you break their locks on files, etc.
  - d. Select the Use Compression check box to compress all the files stored in the vault.
- Build and test commands:
  - a. Select the Commands tab.
  - b. Type the path to the command executable or batch file in the Build Command and/or Test Command text box.  
Or,  
Click Browse to locate the executable or batch file within your system environment and enter its name into the text box automatically.
- A project description:
  - a. Select the Description tab.
  - b. Type a project description of up to 255 characters.

- Exclude list:
  - a. Type the file specifications in the Exclude List text box.
  - b. Separate the specifications with semicolons or commas. For example, use “\*.dof, \*.bak” and StarTeam/Versions ignores all the \*.dof and \*.bak files in the working directory. They never appear in the list of files that are not in the project.

13. Click OK.

The New User dialog opens.

**To finish creating a project that will be accessed locally:**

1. In the User Name text box, type the name you will use to log on to this project or the name Administrator to create a first user logon that can be used by anyone performing administrative functions.

Select this name carefully, because it cannot be changed. Usually people use their network logon name.

2. In the Full Name text box, type your e-mail name if you are using e-mail within StarTeam/Versions.

When using Microsoft Exchange, the full name and the Exchange profile name should be the same. Otherwise Microsoft Exchange returns an error message each time you log on to the StarTeam/Versions project. If this occurs, create a new Exchange profile with the same name as your StarTeam/Versions full name.

3. If you enabled project security, you must also type and confirm a password.

Passwords are case-sensitive and must contain at least six characters.

4. Click OK.

**To finish creating a project that will be accessed remotely:**

1. If StarTeam Server is running, the New User dialog opens. Otherwise, you see an error message.
2. Type the word Administrator in the User name text box.  
This is the predefined administrator name for StarTeam Server.
3. Type any name in the Full Name text box.
4. Type and confirm the password defined in StarTeam Server.  
The default password is the word password (all lowercase). Passwords are case-sensitive.
5. Click OK again.

## **Checking In and Adding Files to a StarTeam/Versions Project**

When you create new or modify existing files you will need to check in these changes to the StarTeam/Versions project.

 **NOTE**

Files in a Delphi project may come from a number of different directories. Often the same source code is shared among several Delphi projects. The StarTeam/Versions integration supports this form of file sharing by searching for the appropriate subproject to check-in to based on the file's path and the subproject's working directory. If no subproject is found with the appropriate working directory, then a new subproject is added under the existing subproject with the closest working directory match. Since you may need to change your working directory at any time, the mapping of files to subproject is not stored and this search is performed on every check-in or check-out request.

## To check in or add Delphi files to a StarTeam/Versions project:

1. Select **Workgroup** ⇒ **Check In File**.

If you have not already logged on the Log On dialog is displayed. Enter your user name and, if Security is active, type your password.

The Check In Files dialog opens.



### **NOTE**

The files which need to be checked in are selected and a check mark appears next to the file name. The selected files correspond to the contents of the Files to Check In filter found in StarTeam and Versions. These are the files which have been changed by you on your workstation.

2. Change the selections by checking or unchecking the files in the Files list box. Use the Select All button to select all of the files and the Unselect All button to clear all selections.
3. Click Lock to lock the selected files.
4. Select the Duplicate OK check box if it is OK to create a version that is identical to the previous one. Clear the box to reject any duplicate versions.
5. Select the Permanent check box to make the new version of this file permanent or clear the box to make this version non-permanent.
6. By default, text files use delta storage, and binary files use omega storage.
7. Select the Delete Working File check box to delete the file from your workstation, storing them only in the project vault or clear the box to leave the working file in the working directory.
8. Select the Keep File Locked check box to keep your lock on the check-in file or clear the box to unlock the file as part of the check-in process.
9. Type a reason for the check-in of the file in the Reason for Check-in text box.
10. Click the Check-in button to check-in the selected files.

☆ **NOTE**

If the file is not found in the project then you will be asked if you wish to add the file to the project

11. Click Done when you are finished.

## Checking Out Files from a StarTeam/ Versions Project

Use StarTeam/Versions to collaborate with the other members of your team. The StarTeam/Versions Delphi integration copies files from the StarTeam/Versions project to the appropriate directory on your workstation. Use the Check Out Files dialog to copy changes made by other team members to your workstation and also to lock files you need to modify.

### **To check out Delphi files stored in a StarTeam/Versions project:**

1. Select Workgroup⇒Check Out File from the menu bar.

If you have not already logged on the Log On dialog is displayed. Enter your user name and, if Security is active, type your password.

The Check Out Files dialog opens.

☆ **NOTE**

The files which need to be checked out are selected and a check mark appears next to the file name. The selected files correspond to the contents of the Files to Check Out filter found in StarTeam and Versions but only for files in the Delphi project. These are the files which other team members have checked in revisions which you have not checked out to your workstation.

2. Change the selections by checking or unchecking the files in the Files list box. Use the Select All button to select all of the files and the Unselect All button to clear all selections.

3. Select the Lock files(s) after check out check box if you intend to modify the selected files, otherwise a read-only copy of the files are checked out. Selecting this option allows you to check-out and lock files in a single operation.
4. Click Lock to lock the selected files. This will not cause the files to checked out and the files on your workstation will not be overwritten.
5. Click Check Out to copy the selected files to your workstation.  
If you have made changes to any of these files you are warned before the changed copy on your workstation is overwritten. At this point you are given an opportunity to cancel the check-out operation.
6. Click Done when you are finished.

#### ☆ NOTE

The default settings for the following check boxes are controlled by the Options Workstation command from StarTeam or Versions:

- Lock files on check-out
- Keep files locked on check-in
- Mark unlocked files read-only

## Launching StarTeam or Versions Delphi

You can start StarTeam or Versions from the Delphi application.

### To start StarTeam or Versions:

- Select **Workgroup** ⇒ **Launch StarTeam Pro...** or **Launch StarTeam...** or **Launch Versions...** from the menu bar.

The StarTeam/Versions main window displays the current project.

# Important Considerations

## **Save all changes before checking in**

The Delphi integration determines which files to check-in by examining the files on your disk drive. If you have made changes but have not saved them yet, Starteam/Versions will not detect any changes. Use the Save All menu or toolbar command to ensure that all changes have been saved prior to using the Workgroup Check-in command or closing your project.

## **Do not use Close All to save changes**

When the Close All command is used you may be asked to save changes to the project even though there have been no changes made to the project. If the DPR or DOF file is read-only, as is often the case when several team members are using the same project file, these file saves will fail. If these files are locked and the Close All is attempted again the DPR and DOF files will have their timestamps reset, but no changes to the files will be made. This will lead to warnings from StarTeam as described in the note below. Please use the Save All command to save your changes prior to checking in as this operation does not needlessly modify the DPR or DOF files.

While Delphi does provide a means for the Delphi integration to request saving all project information programmatically through the SaveProject method, this method behaves like the Close All command, not like the Save All command. Specifically, the SaveProject method resets the domesticate of the DPR and DOF files even if no changes to these files are made. As a result these files are selected as files needing to be checked in but since they are not modified a variety of StarTeam/Versions error messages are returned. As a result we are unable to provide an automatic save prior to check-in.

## **Unmodified files incorrectly need check-in**

Delphi will occasionally change the timestamp on a DOF or DPR file when no change has been made. Even though these files are not modified, they will be selected in the Check-in list. If a check-in is performed on one of these files StarTeam warns the user that the files is unchanged, resets the timestamp to match the last checked in revision's timestamp and asks if you wish to continue checking in files. There is no known workaround to this behavior.

