



Describe CVS Tutorial

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Welcome to the Describe CVS Tutorial

You can configure Describe to seamlessly integrate CVS with Describe, driving the CVS functionality via the GUI. Before starting this tutorial, it is important to understand how Describe integrates with CVS, including understanding the modes of operation supported and the limitations of the Describe CVS client.

This tutorial is based on the Describe release and is as factual as possible; however, errors or omissions may exist.

Embarcadero Technologies Technical Support

Describe is fully supported by the Embarcadero Technologies Technical Support team. The Technical Support team is available to assist you with any problems you have with this application. When [contacting](#) Embarcadero Technologies Technical Support please provide the following:

- Product name
- Product version
- Operating system
- Error message (exact text or a screen shot if possible)
- Detailed description of the problem including steps to reproduce

Every Embarcadero Technologies application includes 60 days free technical support. We strongly recommend that you purchase a maintenance contract to continue receiving technical support after this period.

About Describe Message Box

Describe also offers an About Describe message box, which provides hyperlinks to support via the Web and e-mail. This message box includes an option to automatically include your system information when contacting Embarcadero Technologies. To open and use the About Describe message box, do the following:

- 1 Click DESCRIBE->ABOUT DESCRIBE on the main menu.
Describe opens the About Describe message box.
- 2 In the **Contact Information** box, click any link.

Contacting Embarcadero Technologies Technical Support

Embarcadero Technologies offers three ways to contact technical support:

- [Web](#)
- [Phone](#)
- [E-mail](#)

Via the Web

Embarcadero Technologies Technical Support is available through the Embarcadero Technologies Web Site. To get to Embarcadero Technologies Technical Support on the Web using your Internet browser:

- 1 Open your Internet browser.
- 2 In the address box, type: <http://www.embarcadero.com/support/opencase.asp>
- 3 Press ENTER.

The Internet browser opens the Embarcadero Technologies Technical Support Request Web page.

- 4 Complete the online form.
- 5 Click **Submit**.

Via Phone

The Embarcadero Technologies Technical Support phone number is (415) 834-3131 option 2, and then follow the prompts. The hours are Monday through Friday, 6:00 A.M. to 6:00 P.M. Pacific time.

For licensing issues, including Product Unlock Codes, call (415) 834-3131 option 2, and then follow the prompts. The hours are Monday through Friday, 6:00 A.M. to 6:00 P.M., Saturday and Sunday 8 A.M. to 5 P.M. Pacific time.

The Embarcadero Technologies Technical Support fax number is (415) 495-4418.

Via E-mail

Embarcadero Technologies offers two ways to contact Technical Support via e-mail:

- 1 Complete a technical support form on the Embarcadero Technologies Web site:

Go to the Embarcadero Technologies Technical Support Web page:

<http://www.embarcadero.com/support/opencase.asp>

Complete the form.

- 2 Send an e-mail message to support@embarcadero.com.

Include the following in your e-mail message:

- Product name
- Product version
- Operating system
- Error message (exact text or a screen shot if possible)
- Detailed description of the problem including steps to reproduce.

How Describe Integrates with CVS

You can configure Describe to seamlessly integrate CVS with Describe, driving the CVS functionality via the GUI. Before starting this tutorial, it is important to understand how Describe integrates with CVS, including understanding the modes of operation supported and the limitations of the Describe CVS client.

Modes of Operation

You can work in two different modes: Exclusive and Non-exclusive.

Exclusive Mode

This is the default setting in the Describe. You would use this mode if there is more than one user working on a project in a team environment. When using this mode, only one person at a time can edit a given file. Because each file is locked when edited, no merging of files is required.

Describe's CVS exclusive mode implementation uses reserved checkouts based on the CVS edit, unedit, and watchers commands. For correct operation of CVS within Describe, all clients participating in sharing Describe metadata and associated artifacts must use Describe's CVS client interface. Other CVS clients using unreserved (non-exclusive) checkouts are not compatible with our exclusive mode implementation.

With Exclusive mode, Describe requires each team user to have a unique CVS user account. Only one CVS login account is allowed per Describe session. Within a workspace, you cannot have separate projects, or packages of the same project, that require logins with different user names.

Non-Exclusive Mode

This mode is used for single users who want to version their project. When using this mode, files are not checked out, but are modified and committed.

Describe's CVS non-exclusive mode implementation should not be used in a team environment. If more than one user modifies the same versioned metadata file in their local sandbox, CVS is not capable of correctly merging the changes when they are committed to the repository.

Describe CVS Client Limitations

The Describe CVS client is designed to spawn CVS operations in existing CVS modules, and assures that a Describe project can be effectively shared in a team environment.

Describe provides a graphical user interface (GUI) for many common CVS client operations once CVS modules are configured, such as:

- adding files to the repository
- committing files to the repository
- retrieving files from the repository
- removing files from the repository
- managing lock status on files to avoid merge situations

Describe does not provide a GUI similar to WinCVS or Tortoise CVS for the following types of CVS functions.

- initialization of CVS modules

- checkout of CVS modules to local machines
- configuration of CVS server protocols and authentication methods

Before working with a Describe project on a new client machine, you must first manually create or checkout a CVS module. This tutorial includes the basic steps required to initialize and checkout CVS modules using the CVS command line client included with Describe.

NOTE: GUI clients such as Tortoise and WinCVS may be used to initialize CVS modules, but this is outside the scope of the tutorial.

CVS Server Requirements

Before using Describe to add files to your CVS repository, you must ensure the following:

- 1 A CVS server is available and running. Describe has been tested to work with both CVSNT and CVS Unix server.
- 2 Each client connecting to the CVS server has a unique user name, and that user has the correct rights to add and remove files from the CVS server.
- 3 A CVS server protocol has been selected which provides adequate security for CVS operations. Describe has been tested with both pserver and ext/ssh protocols. Since Describe only spawns CVS commands in the specified module, it will support any CVS server protocol assuming the client machine is configured to execute CVS commands from the command line.

Creating a Describe Workspace Module

Once all CVS Server requirements have been validated, complete the following steps to create a new module for Describe workspaces. The steps shown below use the pserver protocol.

- 1 Create a new Workspace directory inside your CVS sandbox area. For example:

```
C:\CvsSandbox\MyWorkspaces
```

- 2 Set the CVSROOT variable to match your server configuration. For example:

```
set CVSROOT=:pserver:cvsuser@host:/MyCvsRepository
```

- 3 Log in to CVS. For example:

```
cvs login
```

- 4 Navigate to the new folder so it is the current directory and create a new CVS module. For example

```
C:\CvsSandbox\MyWorkspaces>cvs import -d -m "Describe Workspaces" MyWorkspaces
cvs vendor cvsrelease
```

- 5 Once the module is created, check it out:

NOTE: Describe requires a unique user name for each client in the exclusive mode.

```
C:\CvsSandbox>cvs checkout -l MyWorkspaces
```

- 6 Validate that the module was added to the repository correctly and contains a hidden CVS directory.

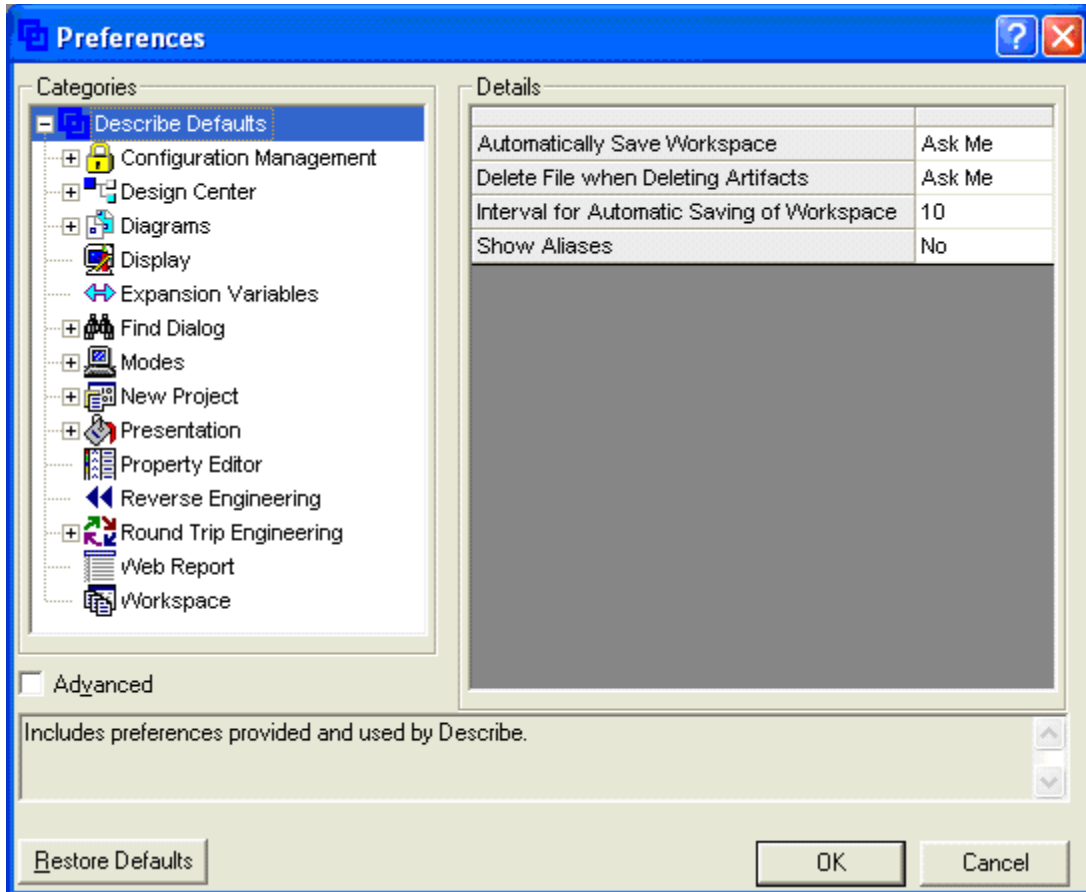
```
c:\CvsSandbox\MyWorkspaces\CVS
```

CAUTION: If you are using a Windows CVS client such as WinCVS or Tortoise to create a CVS module, you must also verify that CVS commands can execute from the command line. After creating a new module, a good way to test this is to open a command prompt, navigate to your CVS module directory, and type 'CVS STATUS'. If this command returns status without any errors, the CVS module is properly configured for Describe. If an error occurs, resolve this problem before using Describe with CVS.

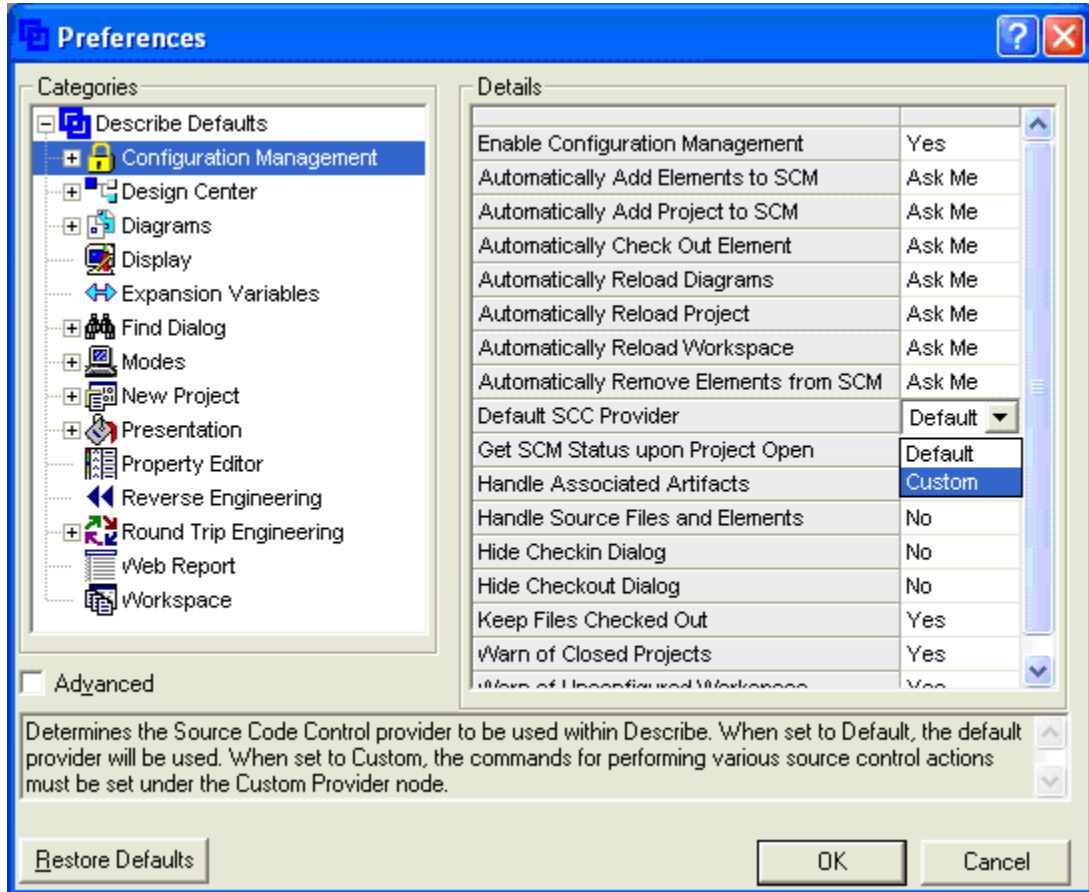
Configuring Describe Preferences for CVS

Now that you have created a Describe workspace module, you are ready to start Describe and set preferences to match your CVS environment. Once Describe is started, verify the Describe preference settings for your CVS environment.

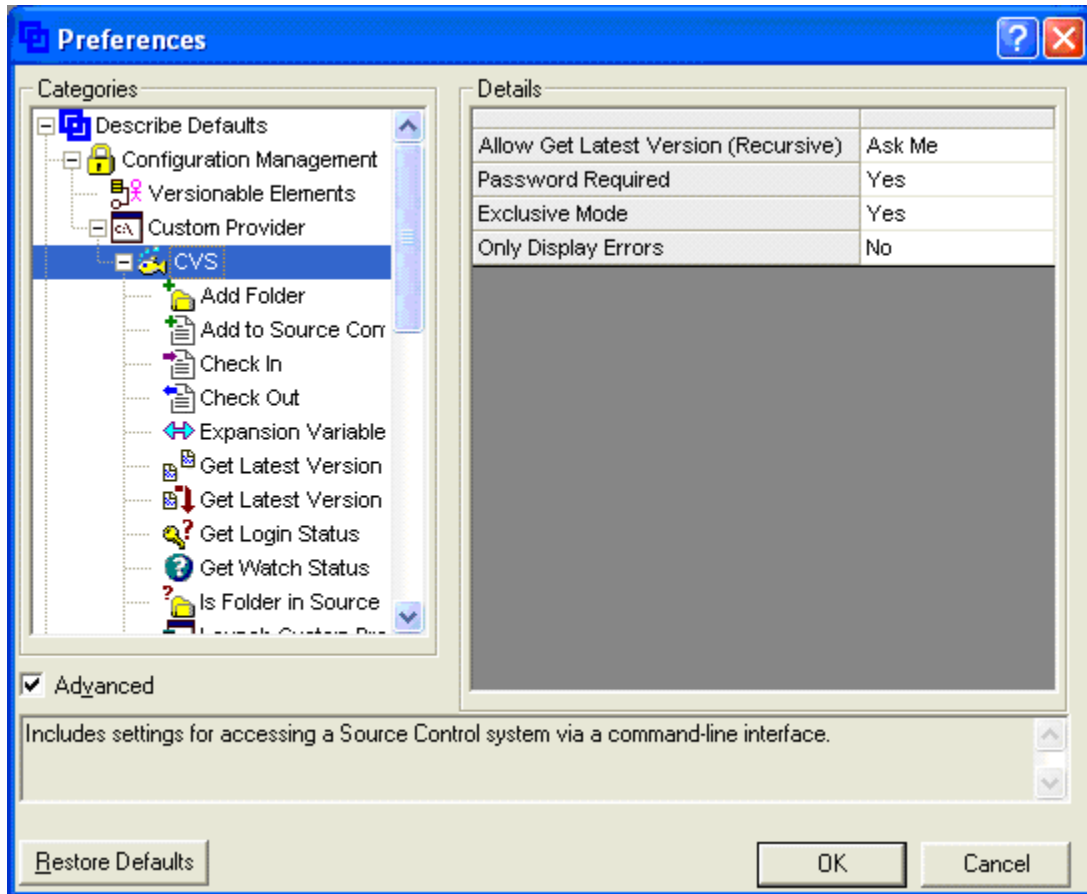
- 1 On the **Edit** menu, choose **Preferences**. Describe opens the Preferences dialog box where you can enable all the connections for Describe and CVS.



- 2 Select **Configuration Management** in the Categories panel.
- 3 In the Details panel, choose the Default SCC Provider entry, and change from *Default* to *Custom*.



- 4 Click the **Advanced** option, located below the Categories panel. Select **Custom Provider** and then select **CVS**.

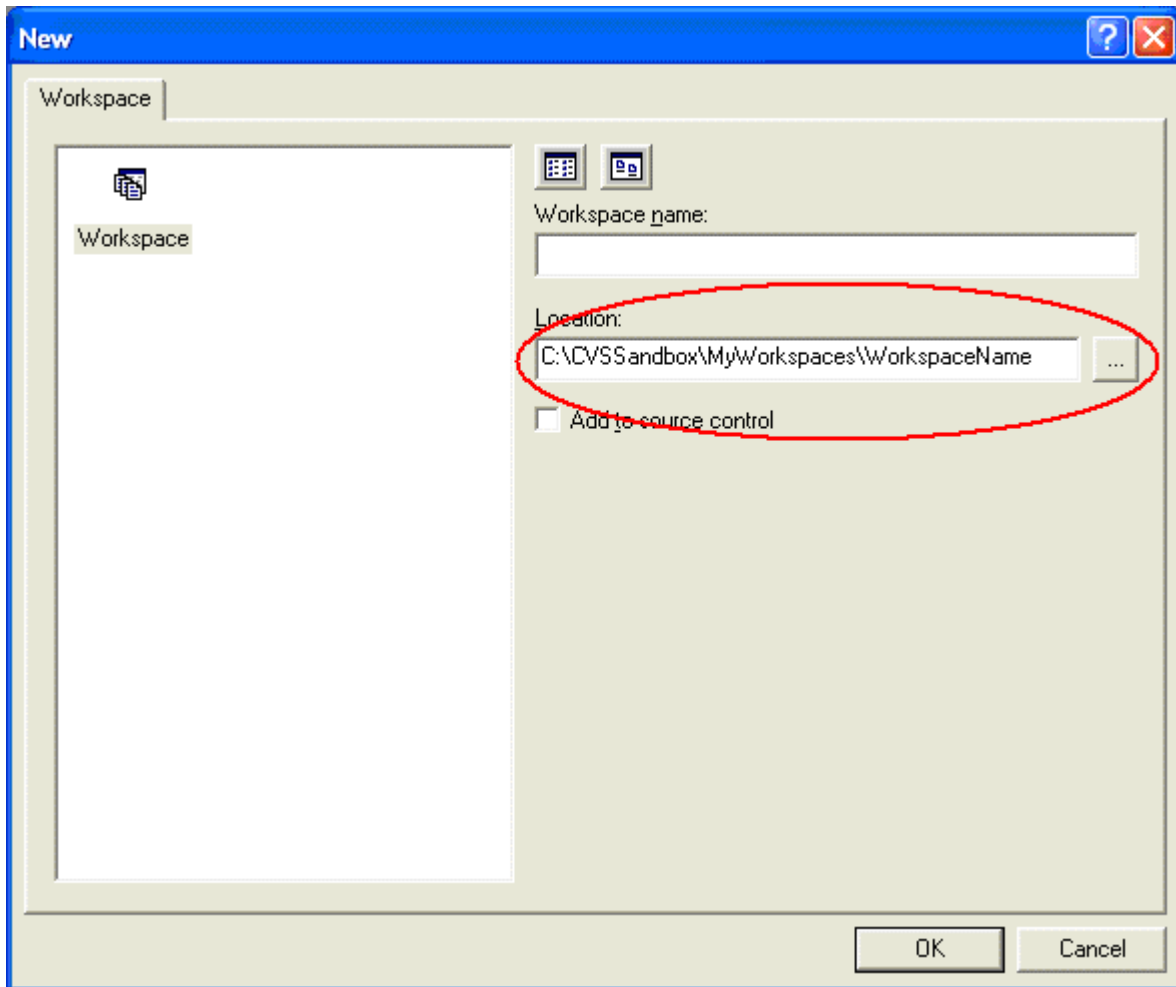
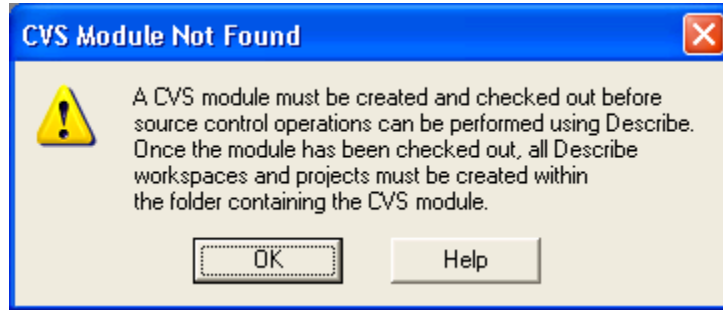


- 5 If a password is required for CVS login, set the Password Required preference to `Yes`. Describe will then prompt you for this password when it is required.
- 6 If multiple users are accessing the CVS repository, leave the Exclusive Mode preference set to `Yes`, which is the default setting.

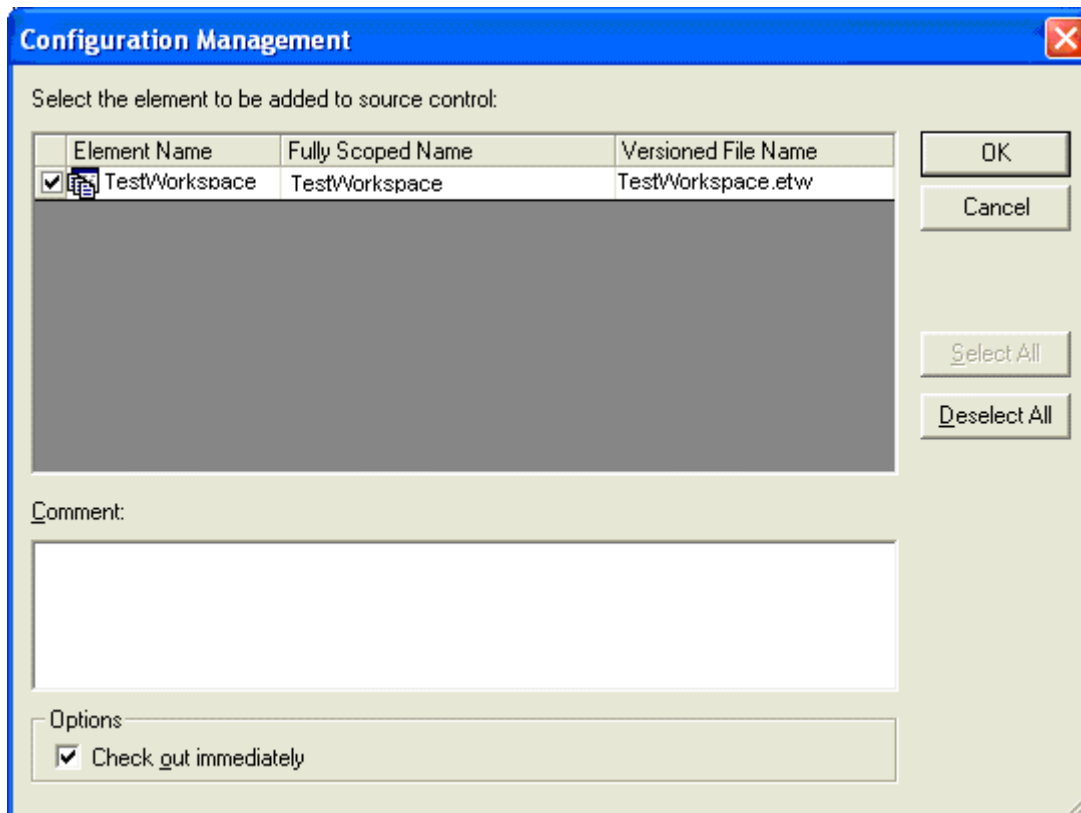
Adding a New Workspace and Projects to the Describe Workspace Module

Now that you have created a Describe workspace module, you are ready to create and add a new workspace, projects and diagrams.

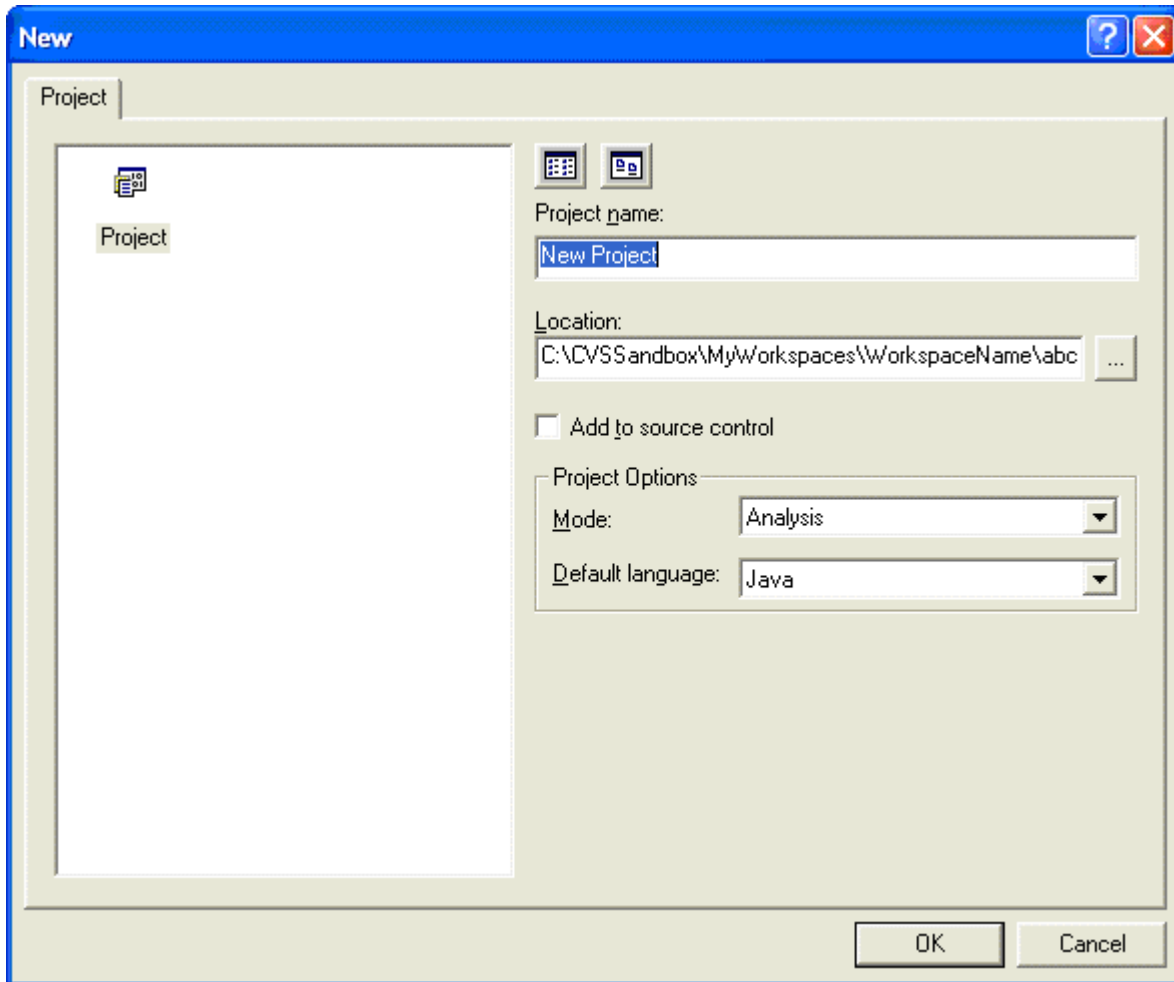
- 1 Create a new Describe workspace in your Describe Workspaces module you just created.
- 2 When you create your Workspace, remember to put in the correct directory for your workspace module so CVS can see it. If the file you created is not in the CVS module you will get the following error message.



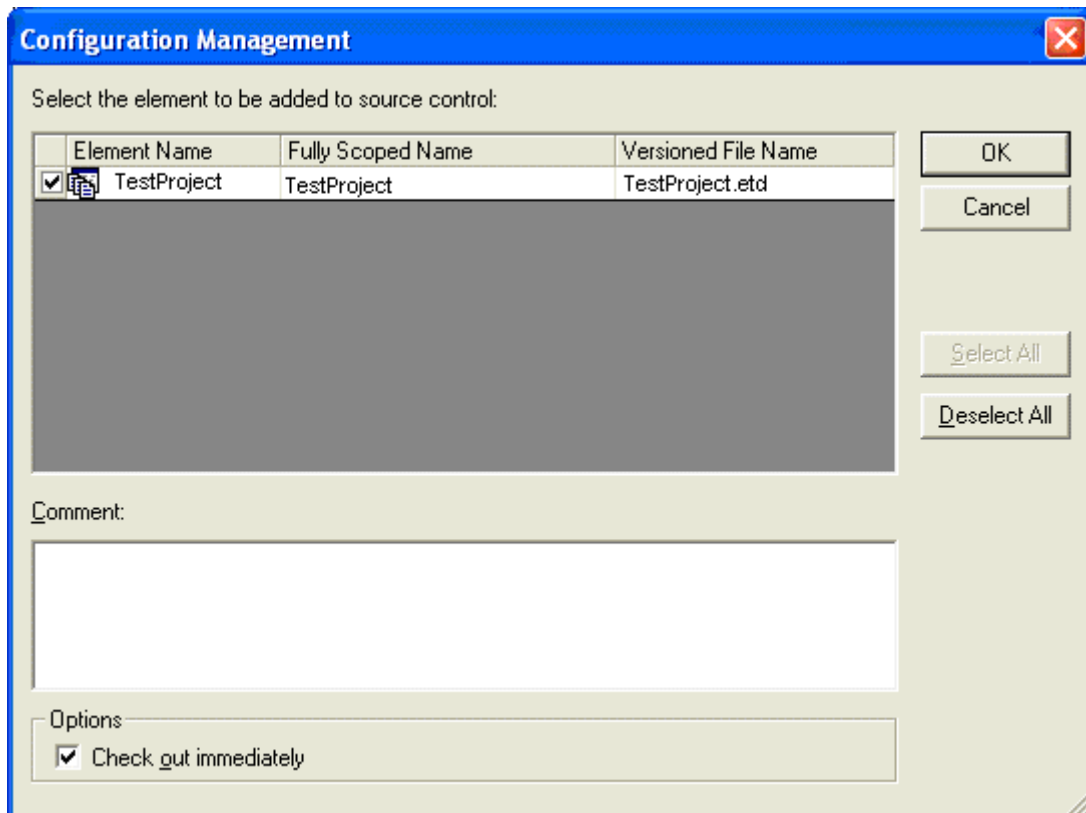
- 3 Give your workspace a name and click the **Add to Source Control** option. When you click OK, the Configuration Management dialog box opens.



- 4 Click OK. The Configuration Management dialog closes and the New Project dialog opens.



- 5 Name your project and click the **Add to Source Control** option. Click Yes and the Configuration Management dialog opens.



- 6 Click OK.
- 7 After you have created a new project, the New Diagram dialog opens where you can create a new class diagram.
- 8 As you create new classes on the diagram, by default, you are prompted to version control each class.
 - If you answer 'Yes', each class is versioned separately.
 - If you answer 'No', the classes are still under version control, but are versioned by the package or project immediately owning the class.
- 9 You can then check the files in and out by right-clicking the newly created element in the Project Tree and select **Source Control** and then click the **Check In** or **Check Out** command.
- 10 Now you can create additional projects, import projects, upgrade projects, and reverse engineer projects. Make sure that you put the Project into the Workspace directory you have set up.
- 11 Save your workspace and check in everything to the repository. Your workspace and project are now added to CVS.

Opening New Workspaces and Projects on Other Computers

Once a workspace and project are committed to the CVS repository, they can be opened on other machines, and shared between users.

1 Validate the following:

- CVS has been correctly installed on the client machine
- The client machine can access the CVS repository
- A local CVS sandbox has been created

NOTE: Each client must have a unique CVS user name, or the multi-user mode will not work.

2 Using CVS, check out the Describe workspace module to the local sandbox. For example:



```
c:\cvsSandbox>cvs -d :pserver:cvsuser@host:/MyCvsRepository checkout -l MyWorkspaces
```

3 Validate that the Describe Workspace and project were correctly checked out to the local sandbox.

4 Start Describe and open the workspace. Describe will automatically be synchronized to this sandbox and display source control status icons for each element in the project tree.

Working in a Team Environment

Once files are added to repository and a CVS checkout is performed on each client computer, the Describe workspace can be shared in a team environment. In multi-user mode, the following icons appear in the project tree to indicate whether a file is checked in or checked out by the current user.

Icon	Description
	Denotes that this is a versioned element, which is locked (i.e. checked out) by the current user.
	Denotes that this is a versioned element not locked (i.e. checked in) by the current user.

When adding new elements or making a change to the Describe model, you will be prompted to check out the associated file or files. If the file is not locked by another user, Describe will proceed to check out the files and make modifications to the project. Also, listed below are other source control operations that are available for all team members:

- Get Latest Version
- Check In and Check Out
- Undo Check Out
- Show History
- Show Differences
- Add to Source Control
- Remove from Source Control
- Launch Provider
- Refresh Status

- Advanced > Add to Source Control (Recursive)
- Advanced > Remove from Source Control (Recursive)
- Advanced > Check Out from Source Control (Recursive)
- Advanced > Get Latest Version (Recursive)

These source control operations are further described in Describe's on-line help system.

Additional Information

You can find more detailed information on the Describe/CVS integration in Describe's on-line Help. Go to **Describe Tools -> Source Code Control ->Working with the CVS Source Control Provider**.

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