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# *Perforce 2005.1*

## *Getting Started with P4V*

**February 2005**

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# Getting Started with P4V

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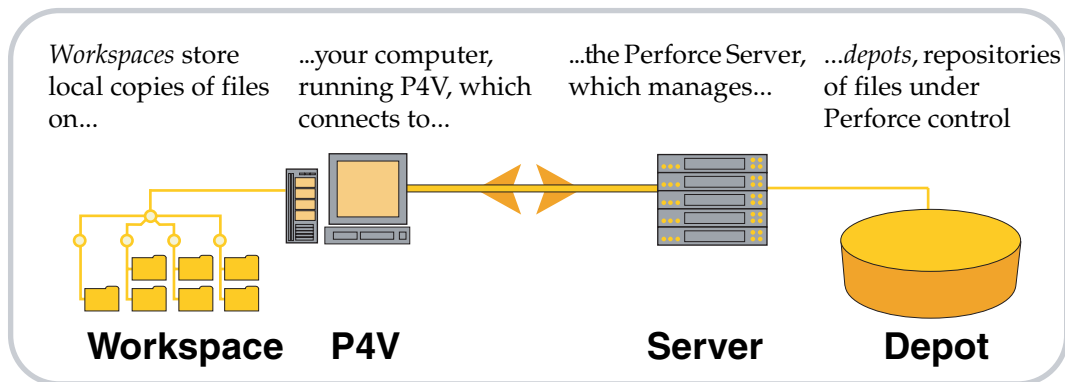
P4V is Perforce's cross-platform graphical user interface. You can use P4V on Windows, Macintosh, UNIX and Linux computers and benefit from a consistent approach regardless of platform. This introductory guide provides some Perforce basics and an orientation to P4V's layout and features. For more details about P4V, consult its online help. To learn more about Perforce, consult the user documentation on our Web site.

To use Perforce to manage files, you typically connect to a server using a client program like P4V. P4V enables you to check files in and out, and perform the various other necessary tasks. The following sections tell you how to perform these tasks and point out powerful features and shortcuts.

## Basic Concepts

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P4V connects your computer to a Perforce *server* to move files between Perforce *depots* and your *workspace*, as shown below.



The precise definitions for these Perforce terms are as follows:

- *depot*: a file repository on the Perforce server. It contains all existing versions of all files ever submitted to the server. There can be multiple depots on a single server. The examples in this guide show a single depot.
- *server*: the program that executes the commands sent by client programs, maintains depot files, and tracks the state of workspaces.
- *workspace*: folders on the client computer where you work on revisions of files that are managed by Perforce.

## Connecting to a Server

To gain access to your depots, you must connect to a server. To connect to a server:

1. Launch P4V. P4V displays the following connection dialog:

**P4V Open Connection**

Recent connections: localhost:1234, tony

**1 Connect to:**  
Server: bigserver Port: 1668

**2 Connect as:**  
User: tonyz Password:   
Browse... New...

**3 Open client workspace (optional):**  
Workspace:   
Browse... New...

Version: Perforce Visual Client/NTX86/2004.2/69137

☒ Show Connection dialog at startup OK Cancel Help

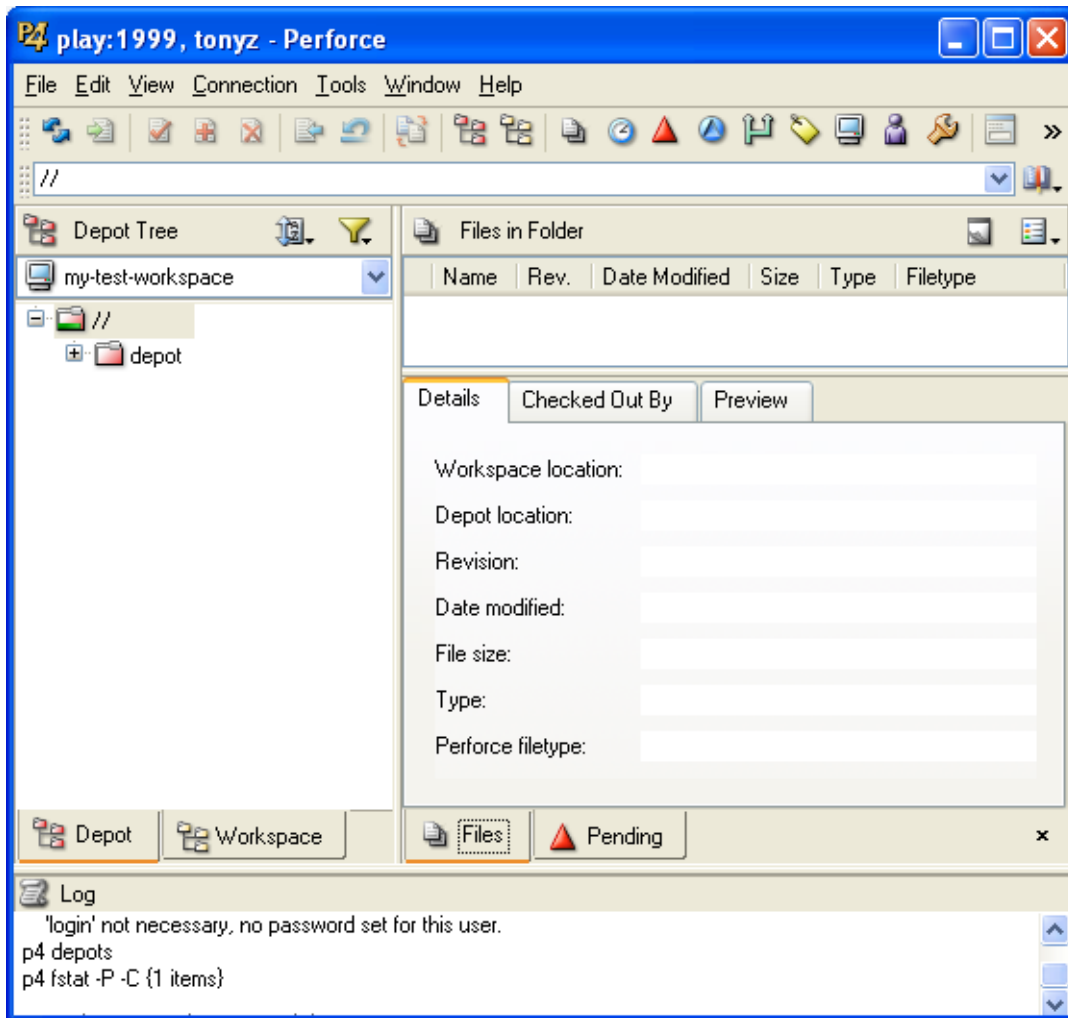
2. Specify the following settings (your Perforce administrator can provide you with this information)
  - Server: the name of the computer where your Perforce server is running.
  - Port: the port number assigned to the server
  - User: your Perforce user name
  - Workspace: the name of your client workspace.

To display a list of existing users and workspaces for a (correctly) specified server, click Browse.

If you have incorrectly specified a server setting, P4V displays a message like the following:

```
Connect to server failed; check $P4PORT.  
TCP connect to bigserver failed.  
bigserver: host unknown.
```

3. To connect, click OK. P4V displays its main screen, as shown in the following figure.

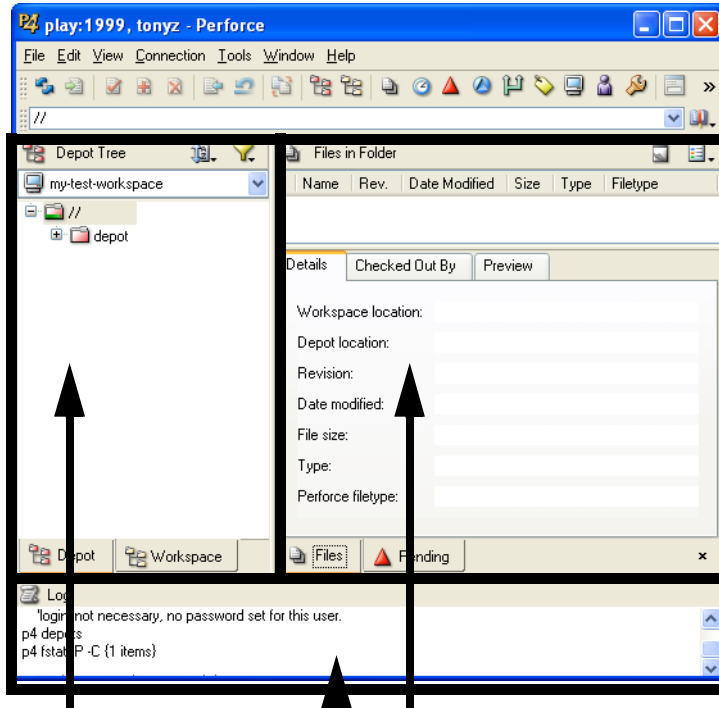


The next section describes the main screen panes.



## Navigating the Main Screen

The following figure points out the panes and important features of the main screen. To see what a button or screen element does, hold the mouse cursor over it. P4V displays a descriptive tooltip.



**Left pane:** displays files and folders. The depot tab displays files in the Perforce server, and the workspace pane displays files in the workspace on your computer

**Right pane:** displays Perforce specifications and file information. To select the specification you want to display, choose **View** or click the corresponding toolbar button.

**Log pane:** displays the Perforce commands that P4V issues, plus error messages and results.

## Managing your Files

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To manage files using Perforce, you typically perform the following tasks:

1. Set up your workspace.
2. Get files from the depot.
3. Check out files you need to edit.
4. Edit files.
5. Check in your changes.

The following sections provide details about these and other common file management tasks.

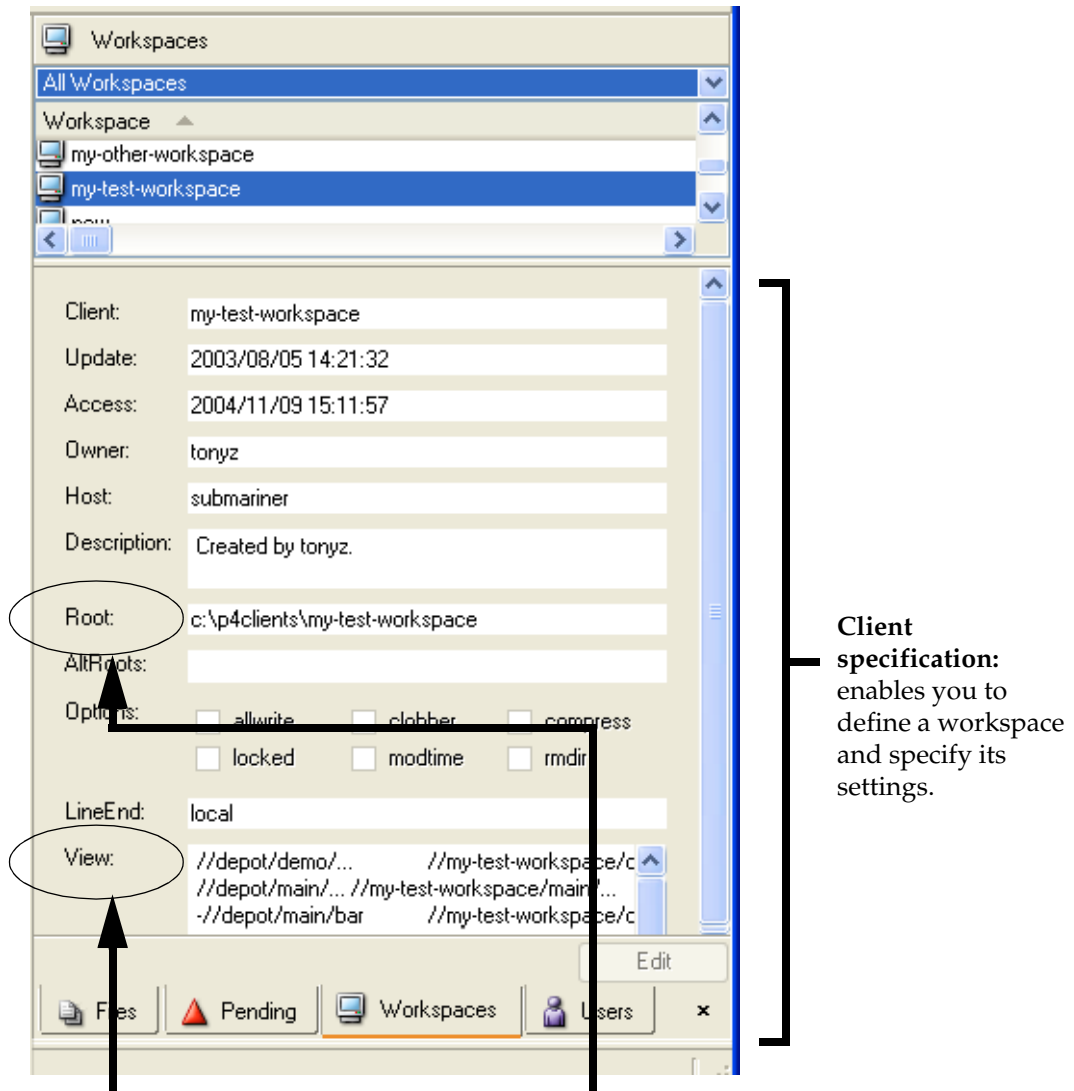
### Setting up your workspace

Your Perforce administrator can do this for you, but it's advisable to learn a few important aspects of configuring your workspace, specifically (1) configuring the client root directory and (2) configuring the client view.

To display your workspace specification, choose **View > Client Workspaces** or click . P4V displays a list of workspaces in the right pane. To edit your workspace specification, click it. P4V displays details in the bottom of the right pane. To make changes, click

Edit

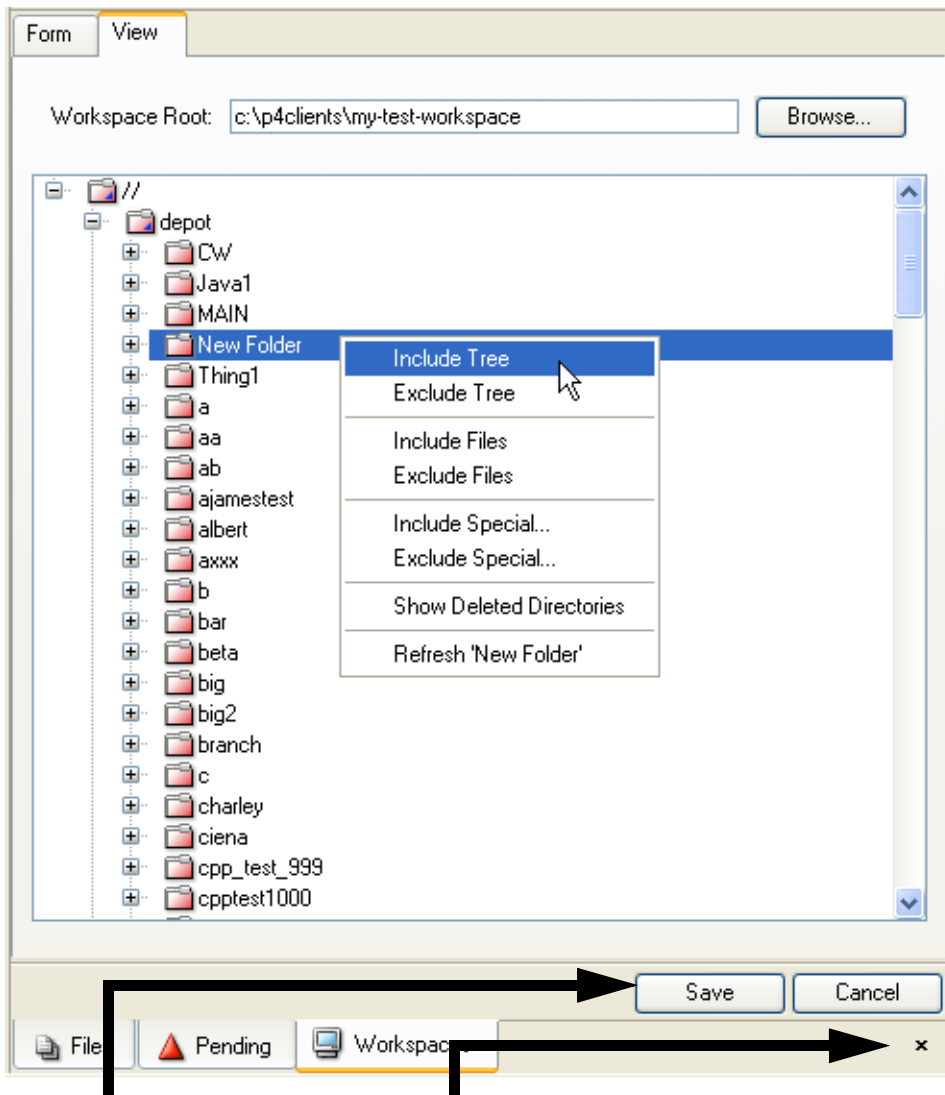
P4V displays the specification details in the lower right portion of the right pane; for example:



**Client view:** enables you to restrict the depot files to which you have access. Set the client view to ensure that you see only what you need to see.

**Client root:** specifies the location on your computer under which Perforce stores copies of depot files. Specify a meaningful name, and make sure it's not set to your computer's root directory!

To display and set the client view graphically, click the View tab. Browse to desired files and folders and context-click to include them or exclude them from the client view, as shown in the following figure.



Click **Save** to save changes. Click the “x” to dismiss the Workspace specification list.


## Getting files from the depot

To copy files from the depot to your workspace:

1. In the left pane, click the Depot tab.
2. Browse to the folder or file you want to retrieve.
3. Context-click the file or folder. To get the most recent version, choose **Get Latest Revision**. To get an older version, choose **Get Revision...** and specify the version you want.

In the Log pane, P4V displays a message like the following.

```
p4 sync //my-test-workspace/main/bark
//depot/main/bark#2 - added as c:\p4clients\my-test-workspace\main\bark
sync complete. 1 file affected.
```

In the left pane, note that the file displays a green dot, indicating that it is present in your workspace:  bark #2/2 <text>

Now the file resides in your workspace, and you can view it. But if you want to edit the file, you must first check it out.


## Checking out files from the depot


To check out a file in your workspace:

1. Browse to the desired file in the left pane Depot tab.
2. Context-click the file and choose **Open for Edit**.

In the Log pane, P4V displays a message like the following:

```
p4 edit //my-test-workspace/main/bark
//depot/main/bark#2 - opened for edit
```

In the left pane, note that the file displays a red check mark, indicating that you checked it out:  bark #2/2 <text>

Note that, when you check out a file, Perforce adds it to a *changelist*, which is a list of related files. You can use changelists to group related files, for example, all files that contain changes required to implement a new product feature. To view the changelist, choose **View > Pending Changelists** or click .

Now you're ready to make changes.

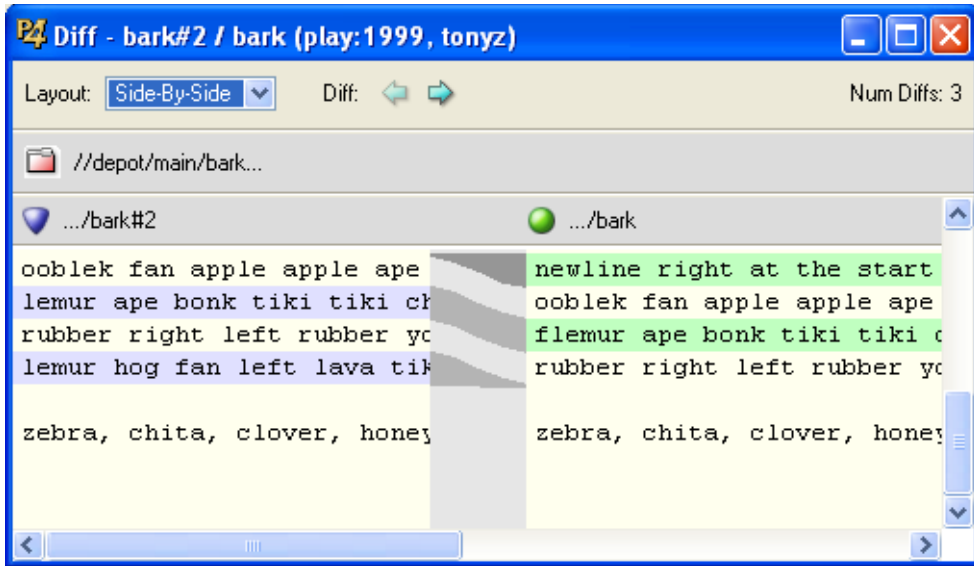
## Editing files in your workspace

To edit a checked-out file, double-click it. P4V launches the corresponding editing application. Make changes and save the file.

Note that you can configure editors for different file types by choosing **Tools > Preferences...** and clicking the Editors tab.

## Diffing files to view your edits

To enable you to see what changes you've made, you can compare (*diff*) your edited file with the version you checked out. To diff, context-click the checked-out file in the left pane and choose **Diff against Revision**. P4V launches P4Diff, displaying the differences between the two files. For example:



## Discarding edits by reverting


If you decide you want to discard your changes:

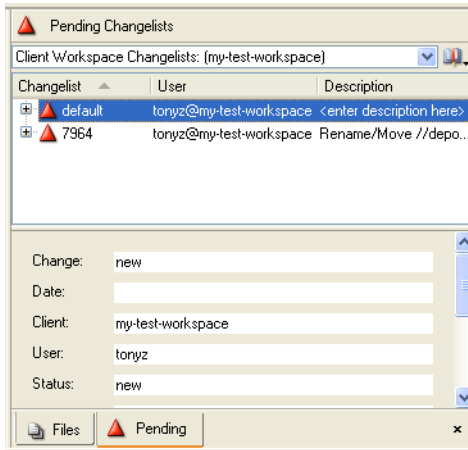
1. Context-click the file in the left pane and choose **Revert Files**. P4V displays a warning dialog.
2. Click OK. In the Log pane, P4V displays a message like the following:

```
p4 revert //my-test-workspace/main/bark
revert complete. 1 file affected.
```

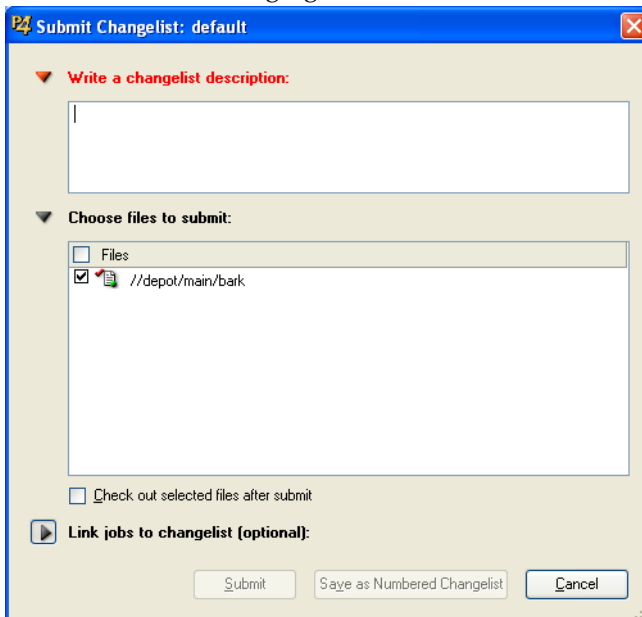
## Checking your edits into the depot

To check your changed file into the depot, perform the following steps.

1. Display pending changelists: click . P4V displays a list of pending changelists, as shown in the following figure.



2. Double-click the changelist in which your file is open. P4V displays the details, as shown in the following figure.



3. Enter a description explaining the changes you made and click **Submit**. The Log pane displays a message confirming that your changelist was submitted, similar to the following.

```
Change 7941 submitted.  
submit complete. 1 file affected.
```



## Graphical Reporting Tools

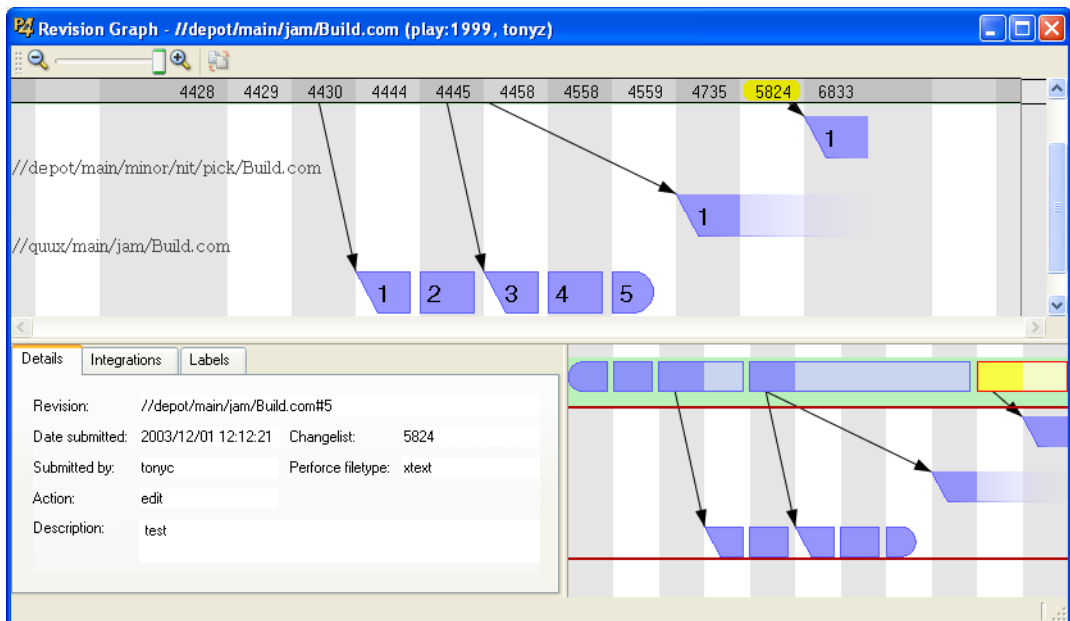
P4V includes several valuable graphical reporting tools:

- **Revision Graph:** displays a diagram that shows the evolution of a selected file, including files related by branching operations.
- **Time-lapse View:** shows how the contents of a selected text file changed from revision to revision. You can easily sweep through revision ranges to locate passages of interest and see when they were created and how they changed.
- **Folder diff tool:** enables you to see how the contents of a folder changed.

The following sections provide more details about these tools.

### Revision Graph

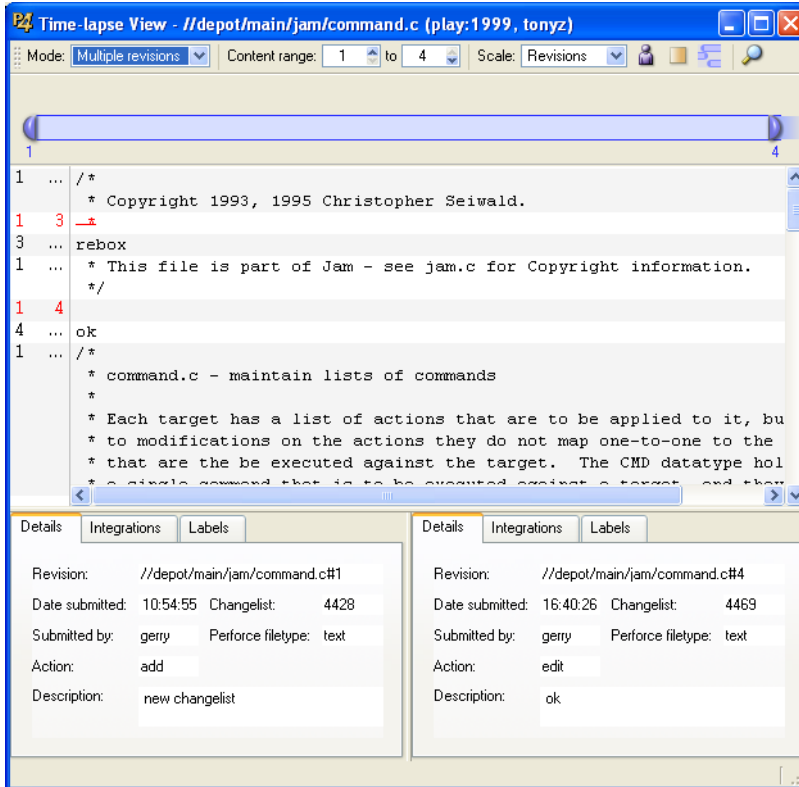
To display the revision diagram for a file, context-click the file in the left pane and choose Revision Graph. P4V launches the tool, which displays a diagram like the following one.



This diagram shows you when the file was created, how it was branched, and enables you to view details about each version submitted to the depot. For more details about the information displayed in the revision graph, consult P4V online help.

## Time-lapse View

To browse the changes made to a text file, context-click the file in the left pane and choose Time-lapse View. P4V launches the utility, which displays a screen like the following one.



Using Time-lapse View, you can sweep through all revisions of the file in a single window, noting when changes were made and who made them. Again, for details, consult P4V online help.

## Folder diff tool

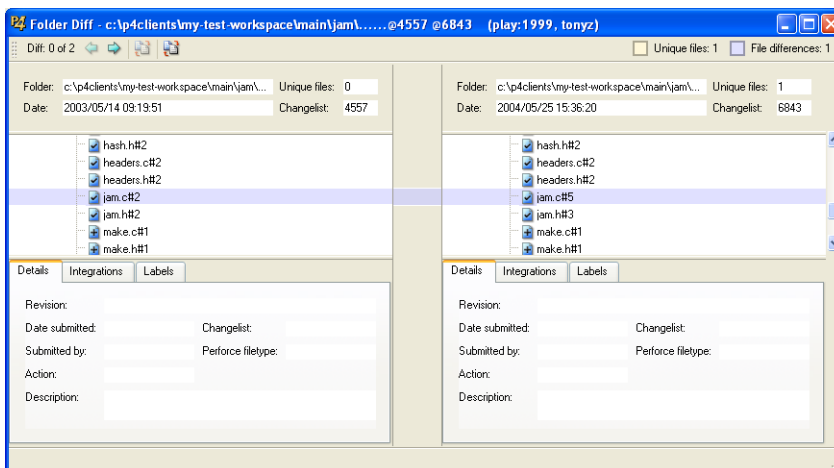
The folder diff tool enables you to see how the contents of a folder have changed: which files are added, changed, or deleted. To view changes to a folder:

1. Context-click the folder in the right pane Depot or Workspace tab and choose Folder History. In the right pane, P4V lists changelists that affected the folder, for example:

Folder History			
Revision (Changelist)	Date Submitted	Submitted By	Description
7965	2004/11/09 15:12:14	tonyz	asdf
7983	2004/11/03 09:55:05	tonyc	fix file type
6843	2004/05/25 15:36:20	bruno	explicit path to add to main.
5075	2003/09/04 12:45:40	tonyz	Add search feature
4557	2003/05/14 09:19:51	tonyz	Adding first files
6024	2004/05/25 12:12:22	bruno	delete

2. To display the changes that occurred between to changelists, drag one of the revisions of interest to the other.

P4V displays a diff showing the changes. Expand folders and scroll to locate changes of interest. The following example shows that, between the selected revisions, a file was edited and checked in.



## Important and Useful Features

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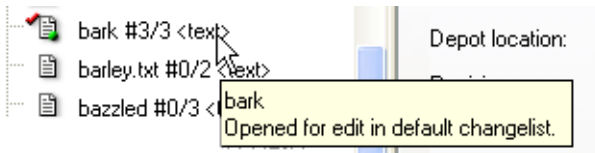
Among the many features provided by P4V, the following are especially useful:

- Tooltips: to get more information about an object, place your mouse cursor over it. P4V displays a popup dialog containing more details.
- Drag and drop: P4V includes numerous drag and drop shortcuts for common operations.
- File views: P4V enables you to preview graphics files using thumbnails.
- Tear off windows: to create a separate window displaying a specification you want to keep on display, you can tear it off.

The following sections provide more details.

### Tooltips

P4V provides tooltips for many objects on the screen. For example, to display the status of a file, hold the mouse cursor over the file in the left pane. P4V displays a tooltip like the following one.



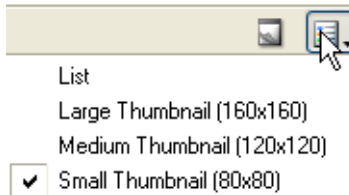
To display a changelist description, click  and hold the mouse cursor over the changelist in the right pane. There are tooltips for all the P4V buttons, too.

### Drag and drop

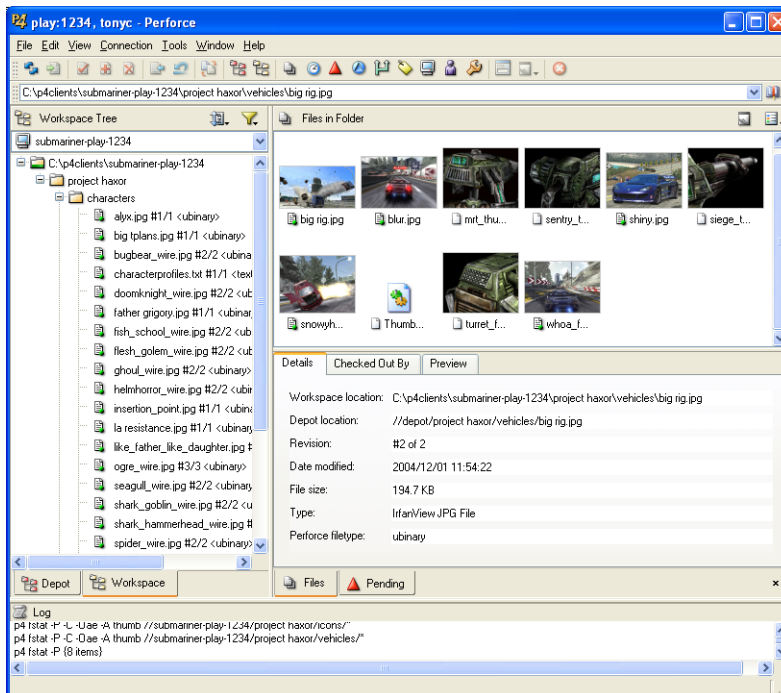
P4V provides drag and drop shortcuts for common tasks. Drag and drop can simplify operations on large groups of files. For example, to check out all the files in a folder, drag the folder to a changelist. To diff two files, drag one to the other. To add a file, drag it from the operating system explorer or Finder to a changelist. For details about drag and drop shortcuts, refer to the P4V online help.

## File views


If you use Perforce to manage graphics files, P4V's thumbnail views enable you to preview the files. To display thumbnails, click the Files tab in the right pane, then select the desired thumbnail size:



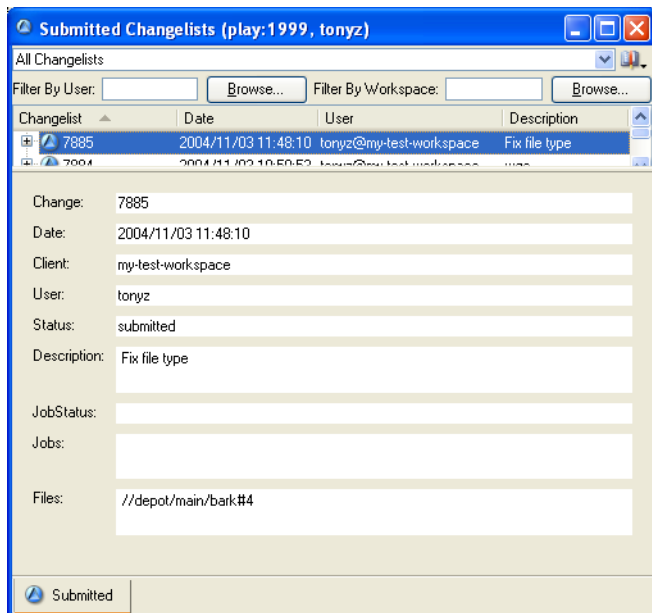
P4V displays thumbnails as shown in the following example.



## Tear off

To keep a specification on display in a separate windows while working with the specifications, you can tear it off or undock it. For example, click  to display submitted

changelists, select a changelist, then choose **Window > Undock Tab**. P4V opens a separate window for it, as shown in the following figure.



To restore it to the main window, choose **Window > Dock Window**.

## Setting Preferences

To configure P4V, choose **Tools > Preferences**. The tabbed **Preferences** dialog is displayed. In particular, the **Editor** tab enables you to associate applications with file types, overriding any operating system associations. The Diff and Merge tabs enable you to configure external applications, in case you prefer tools other than those that are bundled with P4V.

## Next Steps

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This guide enables you to start working with files using P4V and points out important basic features, but P4V enables you to do much more: create jobs, branch groups of files, and handle file conflicts that arise in team development settings. However, there are limits to what you can do with P4V: there is a set of administrative functions that P4V does not support. These administrative tasks are done using the Perforce command-line client (p4). For details, see the *Perforce Command Reference*.

To become expert with P4V:

- Consult the P4V online help and read the Perforce user documentation available from the Perforce Web site.
- Use tooltips.
- In the left pane, pay attention to the file icon decorations, which display a great deal of information about the status of a file.
- Watch the Log pane.
- Learn drag and drop shortcuts to simplify operations on large sets of files.
- Use P4V views and filtering features to enable you to selectively display information.

To get the whole picture, read the *Perforce User's Guide* and the *Perforce System Administrator's Guide*. These documents, which are available from the Perforce web site, describe the full set of features that the Perforce Server provides.

