

SNiFF+™

Version 3.2 for Unix and Windows

Using SNiFF+ with Perforce SCM

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Credits

The first version of Sniff was developed at the Informatics Laboratory of the Union Bank of Switzerland. Its development was considerably facilitated by the public domain application framework ET++.

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Document Information

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Using SNIFF+ with Perforce SCM

Introduction

Perforce is a client/server Software Configuration Management (SCM) and Version Control system with very modern concepts. Its outstanding features are:

- Server-based database technology allow for extremely fast operation with guaranteed changeset integrity (either an entire changeset submission succeeds, or it entirely fails).
- A new concept called Inter-File-Branching (IFB) allows for very flexible branching, merging and change propagation including history and change propagation for renamed files.
- A lightweight commandline-based client is available for almost any platform while a full-fledged GUI for advanced operations on the Depot is available on Windows only.

A free evaluation version of Perforce with full functionality but only limited to two users is available from Perforce Software. For more information and downloads please refer to the Perforce Website at

<http://www.perforce.com>

SNIFF+ / Perforce Adapter Philosophy

SNIFF+ is a high-end Integrated Development and Source Code Engineering tool for C/C++, Java, IDL, Fortran and other configurable languages. It runs on Windows and all major UNIX platforms and integrates source code analysis, browsing, comprehension, powerful editing, configuration management and multi-platform remote build features into a single developer's cockpit.

Together with Perforce, SNIFF+ provides benefit by offering a GUI for all major Perforce actions on both UNIX and Windows. It brings all frequently used Perforce commands at the developer's fingertips by featuring its powerful code filtering, retrieving and analysis capabilities. While all major and file-based commands are directly integrated into SNIFF+, the Adapter relies on native Perforce for all high-volume and administrative tasks.

A free evaluation version of SNIFF+ is available from TakeFive Software. For more information and downloads, please contact TakeFive Software at

<http://www.takefive.com>

In this paper you will learn how to

- Install and Enable the SNIFF+ Perforce Adapter
- Quickly get started with SNIFF+ and Perforce
- Get Reference on all the SNIFF+ Perforce Adapter functionality
- Configure the Perforce Adapter.

Assumptions made in this paper

You should have working installations of Perforce and SNIFF+ on your system. Make sure that the “p4” commandline client is in your path when you start SNIFF+.

Version and Compatibility information

This Document Version:	p4-3.2.1a
P4 Adapter Version:	p4-3.2.1a and higher
SNIFF+ Version:	3.2 and higher
Operating System:	All platforms supported by SNIFF+
Perforce Version:	99.1 and higher

Feedback

Your feedback on the SNIFF+ / Perforce integration is always welcome. Please send all e-mail to the addresses listed below and mention the word Perforce in the subject.

TakeFive Support

Europe:

sniff-support@takefive.co.at

USA:

sniff-support@takefive.com

Other Useful links

SNIFF+ web pages:

- SNIFF+ Frequently Asked Questions
<http://www.takefive.com/support/faq.html>
- SNIFF+ Support Searchable Knowledge Base
<http://www.takefive.co.at/support/kb.html>
- SNIFF+ Users Mailing List
<http://www.takefive.com/support/sniff-list.html>
- Customer Newsletter
http://www.takefive.com/news/customer_newsletter.htm

Installing and Enabling the SNiFF+ Perforce Adapter

As of SNiFF+ 3.2, the Perforce Adapter is part of the distribution in the `$SNIFF_DIR/integrations/Perforce` directory, but it is not enabled by default. If you don't find the Perforce Adapter in the specified directory, or you are updating to a new version of the adapter, you need to complete the following steps:

1. Download the newest adapter from the TakeFive FTP site at <ftp://ftp.takefive.co.at/pub/SNiFF/integrations/Perforce/>
2. Unpack the Adapter Archive (`p4-<version>.tar.gz` or `p4-<version>.zip`) into the `$SNIFF_DIR/integrations/Perforce` directory of your SNiFF+ installation.

Enabling the Adapter

To enable the menus for running Perforce:

- Run the **installation shellscript** from `$SNIFF_DIR/integrations/Perforce/install.sh` (on UNIX) or `install.bat` (on Windows).

This installation shellscript will copy all the Perforce specific files into the place they need to have in your SNiFF installation. In addition, it will rename your current custom menu definition file `$SNIFF_DIR/config/SiteMenus.sniff` into `SiteMenus.p4-orig.sniff` and replace it with the Menu definitions required for Perforce. The installation program will try to merge your existing menu definitions into the new file, but due to the many possible options of your menu configuration this can not be guaranteed to work correctly. So, if you are missing any personal menu entries, please edit `SiteMenus.sniff` to re-enable them.

- For Administrators only: The **P4Admin** menu in the **Project Editor** is not enabled by default; it contains rarely used, administrative and debugging commands. You may copy the `SiteMenus.sniff` file to your personal `UserMenus.sniff` file and uncomment administrative options there in case you need any of them. For details on the `UserMenus.sniff` file, see the SNiFF+ documentation.

When you start SNiFF+ and open a project now, you should see a new **Perforce menu** in the Project Editor and in the Source Editor.

Getting Started with SNIFF+ and Perforce

In this section we explain how to most quickly get SNIFF+ running with Perforce. There are two possible scenarios: either you are already a Perforce user, and you want to use SNIFF+ to browse your existing sources; or, you don't yet have a Perforce Depot for your Sources. The instructions in these two sections should be safe to follow; in case you still run into any problems, you may want to consult the Reference section below.

Preparing your Sources

For this section, we assume that you already have a Perforce Workspace in **C:\WS**, and that you want to set up on your project which resides in **C:\WS\my_branch\sniffest** (UNIX Users can substitute \$HOME/WS and \$HOME/WS/my_branch/sniffest in this example). You should now

- If you **are already a Perforce user**: use the p4 commandline client to synchronize your entire demo project (SNIFF+ needs all project-relevant files local for its initial setup):

```
p4 sync C:\WS\my_files\demo\...
```

Using the p4 commandline client makes sure that the p4 program is correctly in your path, that \$P4PORT and \$P4CLIENT as well as your Perforce View are set correctly for SNIFF+.

- If you are **not yet a Perforce user**: Copy your sources to the location where you want to work with them (or, just decide to work with them in their current location). Then, change directory to the workspace you just created and execute the Perforce client command:

```
cd C:\WS
p4 client
```

Perforce will open an editor window asking you to specify your client; you can close the window again, without changing anything. Using the p4 commandline client makes sure that the p4 program is correctly in your path, that \$P4PORT and \$P4CLIENT as well as your Perforce View are set correctly for SNIFF+. If you have any problems up to this step, please consult the Perforce Quickstart Documentation.

Setting up the SNIFF project

The SNIFF+ Perforce Adapter can work with both absolute and shared projects. For this example, we will set up a shared project which means a little bit more work (to set up the Working Environment) but better Team Support (you can share the project you create with other developers). To set up the project:

1. Start SNIFF+. The Launchpad appears. Select the menu **Project -> New Project -> With Wizard**.
2. In the Wizard, choose **"Standard Setup"** and next.

3. Select the middle option “**Add new SNIFF+ Working Environments**” and choose next. Note: we don’t create a project from scratch because Perforce doesn’t need to have its Repository specification in SNIFF+.
4. Keep the Default (“**Private Working Environment(s)**”) and choose next.
5. As Working Environment Parent, choose “**None**” and choose next. Note: if the “next” button is not enabled, click through the list of options and then on “None” again to enable it.
6. Select the types of files that you have in your test project and choose next. Note that although you can have C/C++ and Java files together in one project tree, you cannot set these projects up in one step. For details, see the SNIFF+ documentation.
7. Use the “Browse” Button to enter the **root directory of your Working environment**: In our example, this would be “**C:\WS\my_branch**”. Generally, your Working Environment Root should be just so high in your directory hierarchy that you can have all the files you want to see in your project below the WE Root.
8. Choose a **name** for your new Private Working Environment: we recommend to choose your Perforce client name, or an identifier for the branch you are working on, or just “Perforce”. The Owner should already be set to your login name. Choose next.
9. Since we don’t want to create new working environments, choose “No” and next.
10. Use the “**Browse**” button to **navigate to your test project**. Note that navigation starts in your Workspace root; in our example, double click on “**sniffest**” and press “Select”. Choose “**Perforce**” as the VC Tool from the dropdown list and choose next.
11. Now, SNIFF+ will read in your test project’s files, parse them and finally present them in the Project Editor.

In the SNIFF+ Project editor, you should see a “Perforce” menu; if not, please check your Perforce installation and enable the Adapter. You can continue with “Basic SNIFF+ Perforce Adapter Actions”, below.

Initial Checkin

This step only applies if you are not yet a Perforce user and thus need to do an initial check in of your sources before you can actually work with them under Perforce. To do the initial checkin,

- Select all your SNIFF Projects with a green checkmark in the Project Editor’s lower pane.
- Choose **File -> Select all** to select all files.
- Choose **Perforce -> Add selected file(s)** to initially put them under Perforce control.
- Choose **Perforce -> Submit** to perform the actual Checkin. Enter some comment like “initial checkin” into the comment box.

Basic SNIFF+ Perforce Adapter Actions

Once you are in the SNIFF+ Project editor, you can test the following basic actions:

- Click on the “**Lockers**” Checkbox at the bottom of the Project Editor. You should see the local (“have”) revisions of your project’s files. If you see “--no-mapping--”, please

-
- Choose “**Perforce -> Show/Change current P4Client**” to make sure the correct client is used.
 - Choose “**Perforce -> Create/Edit client specification**” to make sure your view is set correctly.
 - Select a file and choose “**Perforce -> Add selected file(s)**” to add them to the depot.
 - Click on the “**History**” Checkbox at the bottom of the Project Editor. You should see the file history of the currently selected file.
 - With “**File -> Check Out**” you can open files for edit; with “**Perforce -> Submit**” you can submit your changes.
 - With “**Project -> Close Project**” you can close your test project; you can later easily open it again from the Launchpad’s “**Project**” menu (there’s a history list at the bottom).
 - If you want to create new projects, you can now use the Wizard and select “**Create a new project in an existing SNIFF+ Working Environment**” in the second screen. Just choose the Private Working Environment you created before, and select a different directory as the project directory.

For more information, please refer to the SNIFF+ Documentation (it’s available online if you click on the Question Mark menu in the initial SNIFF+ Window), and to the Reference Section below.

Adding and Removing Files

Since both SNIFF+ and Perforce keep record of what files belong to a specific project or a specific configuration, the SNIFF+ **Project > Add/Remove Files to/from *projectname...* dialog should NOT be used for removing files**. Instead, you should use the corresponding Perforce custom menu entry **Perforce > Remove file(s)**.

Note that your Project Description File must be writable in order for this command to work.

SNiFF+ Perforce Adapter Reference

Working Environment Setup

You may specify an RWE and enter the Perforce Port specifier as its “Directory” field: then, for all Working Environments located below this RWE, Perforce will always connect to the specified server and port. This allows you to easily work with multiple Perforce Servers in Parallel.

For example, to set up an RWE for working on a Perforce port called `perforce:1666` :

- Open the SNiFF+ Working Environments Tool (**Tools -> Working Environments**)
- Select the “star” at the top of the Working Environments Tree
- Choose **right mouse click -> New Repository**
- As name, enter “**Perforce_1666**” ; as Root Directory, enter “**perforce:1666**”

Now, you can create new Working Environments that will access this server by selecting the RWE you just created, then choosing **right mouse click -> New Private** and entering a name and Root Directory for your Working Environment(s).

Project Editor Display

Perforce Menu (Launch Pad)

Server Info for <current_server>

Displays Perforce Server information for the Server which is associated with the currently selected Working Environment (that is, the SNiFF+ RWE below which the current working environment is located).

Running this function can help you to find out whether SNiFF+ can correctly “see” the Perforce server, and whether you have selected the right working environment.

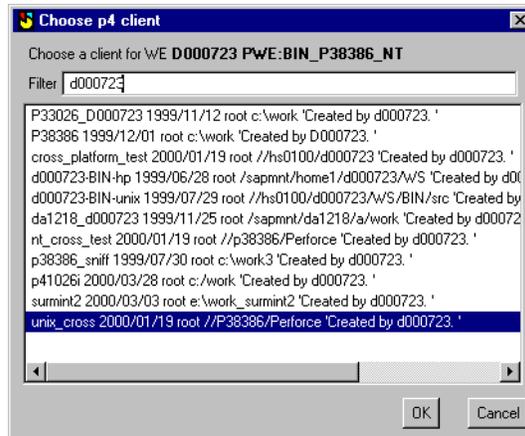
Run P4Win for <current_server>

On Windows, this menu entry starts the Perforce GUI in the context of the currently selected Perforce Server and Perforce client. This can be a good help if you need to work with multiple Perforce Servers.

On UNIX, this menu entry is disabled.

Select P4Client for <current_WE>...

Displays the Listbox in which you can select a Perforce Client to be associated with the currently selected Working Environment:



In the Dialog's "Filter" box, you may enter text or regular expressions to filter the list displayed. When you press "OK" the selected client will be saved in the file ".p4client" in the selected Working Environment's Root directory and will thus always be used from now on when a project is opened in that working environment.

Enter P4Client for <current_WE>...

Enter a new client name to be created for the currently selected working environment. After entering the client name here, you must choose the next entry "Create/Edit Client Specification" to create the client in Perforce.

Create/Edit Client Specification for <current_WE>...

Displays a form which allows you to create a new Perforce client or change its specification (like the sync options or the view).

Sync by Perforce Pattern...

Here, you may enter a depot-side Perforce path for files that you want to sync to your Workspace. The depot path matching your selected working environment's root directory will be put into the dialog as a default.

You can use this dialog to initially populate your Workspace with files from the Perforce Depot. Typically, you will sync to a pattern like

```
//prj/my_branch/my_module/...
```

to obtain the HEAD version
of your module

<code>//prj/my_branch/my_module/...@myConfig</code>	to obtain a specific frozen configuration
<code>//prj/my_branch/my_module/...#none</code>	to remove files from your client when you finished a task.

Have

Displays a list of all the files that are currently synced to the selected Working Environment.

Show P4 Adapter Version

Display a Dialog which shows the current Perforce Adapter Version.

Perforce Menu (Project Editor)**Run P4Win for <current_server>**

On Windows, this menu entry starts the Perforce GUI in the context of the currently selected Perforce Server and Perforce client. This can be a good help if you need to work with multiple Perforce Servers.

On UNIX, this menu entry is disabled.

Select P4Client

Displays the Listbox in which you can select a Perforce Client to be associated with the currently selected Working Environment: (see above).

In the Dialog's "Filter" box, you may enter text or regular expressions to filter the list displayed. When you press "OK" the selected client will be saved in the file ".p4client" in the selected Working Environment's Root directory and will thus always be used from now on when a project is opened in that working environment.

Enter P4Client...

Enter a new client name to be created for the currently selected working environment. After entering the client name here, you must choose the next entry "Create/Edit Client Specification" to create the client in Perforce.

Create/Edit Client Specification...

Displays a form which allows you to create a new Perforce client or change its specification (like the sync options or the view).

Add selected file(s)

Schedules selected files for addition under Perforce Version control. Note that only after the "submit" operation the file will be really added.

If you have more than one changelist pending, a selection dialog will allow you to choose the changelist in which you want to maintain the addition of the selected files.

Edit selected file(s)

Makes the selected files (which are already checked out) writable and notifies Perforce that they are going to be edited.

If you have more than one changelist pending, a selection dialog will allow you to choose the changelist in which you want to maintain editing the selected files.

Revert selected file(s)...

Makes the selected files read-only and notifies Perforce that they are not edited any more. Before the command is actually executed, a dialog asks for confirmation.

Delete selected file(s)...

Schedules files for deletion in the Perforce Repository. Note that you need to Project -> Add/Remove files them in addition to this command to also remove them from the SNIFF project.

If you have more than one changelist pending, a selection dialog will allow you to choose the changelist in which you want to maintain deletion of the selected files.

Submit...

Opens a dialog which allows you to enter a comment and select files you want to submit together to Perforce.

When you press the "update" button instead of the "submit" button, your changes will be put into a new changelist but not submitted; this enables you to work with multiple changelists.

Sync selected file(s)

Does a `p4 sync` to merge changes made by other developers since the last checkout or update. The most important properties of `p4 sync` compared to SNIFF+'s File/Update are as follows:

- `p4 sync` looks at writable files, too. The latest version is applied to a checked-out file by applying a patch. This is more efficient than SNIFF+ Update, but may lead to conflicts that need to be resolved.
- `p4 sync` will never delete a file to show the SSWE version again.

Sync by Perforce pattern...

Use this menu entry if you need to sync whole modules or greater portions of your project. You will be presented with a dialog to enter a Perforce Specification for syncing (see the same menu entry in the Launchpad, above).

Sync entire Workspace...

This menu entry allows you to re-sync your entire Working Environment to the latest Perforce version. It will run a `"cd $WEROOT ; p4 sync . . . "` command after it asked for your confirmation in a dialog. Note: in order to sync to a specific label instead of the latest version, use the **Sync by Perforce pattern** menu (see above)

Opened

Shows what files are currently opened for edit in the active client. Should return the same list as filtering writable files only in the SNIFF+ Project Editor.

Resolve...

Calls the interactive p4 resolve commandline client for all selected files.

Change File Type...

Allows you to switch file type to binary, text, ktext and others by reopening selected file(s).

Describe Changelist(s)...

Allows you to enter a changelist number in a dialog and prints the Perforce Changelist specification for that changelist. Note: you can copy and paste changelist numbers from the SNIFF+ History Display, which you can enable by switching on the "History" checkbox at the bottom of the Project Editor.

P4 Jobs

Displays a list of Perforce Jobs

Toggle Version Display in Lockers

When you enable the "Lockers" checkbox at the bottom of the project editor, an additional column of information about Perforce Versions will show up. This menu entry allows you to switch on and off the display of local and "head" Perforce version for every file there. Default for this setting is **on**.

Toggle Filetype Display in Lockers

Same as above, this menu entry allows you to switch on or off the display of the Perforce Filetype for all files displayed. Default for this setting is **off**.

Toggle Branch Display in Lockers

Same as above, this menu entry allows you to switch on or off the display of the Perforce branch which is selected by the current view for all files. Default setting is **off**.

P4 Admin Menu (Project Editor)

The P4 Debug menu contains commands which are rarely used or which will only assist in debugging the Perforce Adapter. By default, this menu can be disabled.

Server Info for <current_server>....

Calls the p4 server command.

Have

Shows what files are currently synced to the active Perforce Client.

Delete current P4 Client

Calls a “p4 client -d”

Toggle VCS Debugging

Switch on or off basic SNIFF+ Version control Debugging. This will allow you to see all Perforce commands as they are executed by the SNIFF+ Perforce Adapter. This information may help TakeFive support to diagnose any problems you have with the Perforce Adapter.

Toggle P4 Adapter Debugging

Switch on or off advanced detailed debugging info about internal Perforce Adapter functionality. This information may help TakeFive support to diagnose any problems you have with the Perforce Adapter.

Reload P4 Adapter

In case you do any modifications to the SNIFF+ Python Perforce Adapter (like customizing the Adapter through P4Prefs.py), this command will reload the modified Adapter into memory.

Show P4 Adapter Version

Opens a dialog box showing the current Perforce Adapter Version.

File Menu (Project Editor and Source Editor)

The standard SNIFF+ CMVC functionality for individual files is available in the File menu. Most functions are available for Perforce.

Check Out...

For Perforce, the Check out operation is a combination of “p4 sync” and “p4 edit”, perhaps also with “p4 lock”. It will get the latest version of a file and make it locally writable (open for edit). You may select a version to check out and a locking option:

No Lock - the file is checked out read-only.

Concurrent Lock - the file is checked out and `p4 edit` is executed to make the file writable. This should be the default function for you to use!

Exclusive Lock - the file is checked out and exclusively locked with `p4 lock`.

The **File > Check out...** internally uses a `p4 sync` command but deletes the file before sending the command. Therefore no automatic merging can occur, and the whole file is transferred.

If you check out an older version than head, the file will allow check in only after a p4 resolve operation.

Check In...

The SNIFF+ file-based check in operation is disabled because Perforce only supports a workspace-oriented Check in which is accessed through the “Perforce -> Submit” menu.

Lock...

Sets an exclusive lock on the given file.

Unlock...

Removes an exclusive lock.

Delete Version, Replace Description, Replace Comment

These command are currently disabled for Perforce.

Update File...

Performs a SNIFF+ Update on the selected file. The most important properties and differences of Update File... to p4 sync are as follows:

- Update File... only looks at read-only files. Writable files not be changed. Files will always be checked out completely and never be patched, therefore conflicts cannot occur; changes in read-only files will be overwritten.
- If you are using a shared workspace and Update File... finds the most current version in the SSWE, the local file will be deleted to show the SSWE's file while p4 sync will never delete local files.

So the SNIFF+ Update File and the p4 sync functions complement each other. Note that the SNIFF+ Menu Entry **Project/Update Workspace** also does a SNIFF+ Update File for all files of all currently selected projects.

Show Differences...

Opens a dialog to select versions of files to compare in the DiffMerge tool. If a version is selected in the History pane, this version will be selected by default; otherwise symbolic names (configurations) can be used to select file versions. If the local file is writable, merging will be enabled in the DiffMerge tool.

Perforce Menu (Source Editor)

Add <filename>

Schedules the current file for addition under Perforce Version control. Note that only after the “submit” operation the file will be really added.

Sync <filename>

Performs a p4 sync to incorporate the latest changes into the current file by patching it. Note that this can introduce conflicts that you need to resolve.

Edit <filename>

Makes the currently edited file writable and notifies Perforce that it is going to be edited.

Revert <filename>...

Makes the currently edited file read-only and notifies Perforce that no more editing is going to be done. Note that any changes you made will be lost after the next SNIFF+ Update File since read-only files will be brought to the revision requested by update file without any patching. So in case you want to keep your changes, you should keep your files writable (=edited) or commit them to the repository.

Submit...

Submits all current changes.

SNIFF+ Configuration Manager

You can use the SNIFF+ Configuration Manager to get an overview about the Change Sets involved with your currently open projects.

Note that due to the different concepts of SNIFF and Perforce you have no guarantee that there are no other files in a changeset, which SNIFF currently does not see.

Also, you can not currently use the SNIFF+ Configuration manager to do any operations on Labels (Freeze, Rename, Delete label). These operations are currently not available from within SNIFF+.

Advanced Issues

How SNIFF+ Determines the Performer Client

The following algorithm is used by SNIFF+ to define the current Performer Client name:

1. If a file called **“.p4client”** is found in the working environment root directory, its contents is read and taken as the Performer Client for this Working Environment.
2. If an environment variable called **\$SNIFF_P4CLIENT** is set, its contents is taken as the current Performer Client.
3. If an environment variable called **\$P4CLIENT** is set, its contents is taken as the current Performer Client.
4. The current hostname is taken as P4CLIENT.

Whenever this default algorithm of obtaining a Client name is overridden through the “Show/Change current P4Client” Menu function, the modified client name is written into a file called **“.p4client”** in the current workspace, so the next time this client will be taken first through the algorithm.

Using Multiple Performer Servers

If you want to access multiple different Performer Servers from your SNIFF+ Environment, you just need to define a separate RWE (Repository Working Environment) Entry in the Working Environments Tool for every server.

Working with a Shared Source

The main advantage is the sharing of source and objects files. Just a small part of all source and object files need to reside in the Private Working Environments.

After the creation of the Private Working Environment the whole project is visible for SNIFF+’s browsing and code comprehension tools. Since the Shared Working Environments are read only, it is necessary to check out modules and files to be modified. The checked out files will then reside in the private workspace, all other files will be shared from the Shared Source Working Environments.

Objects files can be shared by using a Shared Object Working Environment (SOWE).

Advantages	Disadvantages
<ul style="list-style-type: none"> ■ Sharing of source files by using SSWE(s). ■ Complete browsing information for the whole project. ■ Sharing of object files by using SOWE(s). ■ Less compilation time. ■ Modules can be checked out from SNIFF+'s GUI. ■ Automatic creation of the private WE by SNIFF+. 	<ul style="list-style-type: none"> ■ p4 sync should be used for single files only, because it makes all files local; use SNIFF+ update instead, which is slower ■ Higher network bandwidth requirements due to shared source

The typical development cycle when using a shared source is like this:

- Open the project in a PWE. All files are shown from the Shared Source, no files are local.
- Browse the files. If a file needs to be edited, execute **File > Check out...** (with concurrent lock) to get a local copy of the file to be edited.
- Edit the file until you are satisfied; execute **Perforce -> Sync** to incorporate any changes made by other developers. Resolve any Conflicts.
- Execute **File > Update File** or **Project > Update Workspace** to clean any local copies of files that have already been updated in the Shared Source.

For other special commands, see the following sections.

Windows to UNIX Cross-Platform Development with Perforce

When editing UNIX sources from the Windows PC, take care that your Perforce client is set so as not to do CRLF conversion (it's an option in the client specification form).

SNIFF+ also allows to use only ONE Perforce client for working both on Windows and UNIX, if the P4 CLient's root directory is set to an UNC path name. For details, you may ask TakeFive Support.

Customizing the Perforce Adapter

SiteMenus and UserMenus

The Perforce custom menus are currently rather large; however, it is easily possible to adapt these menus to your specific needs.

One customization that is particularly recommended is removing the whole **P4Debug** menu for developers and enable it for the Perforce / SNIFF+ Administrator only. This can easily be accomplished by first copying the `SiteMenus.sniff` file to the Administrator's `UserMenus.sniff` file and then commenting out all entries from the **P4Debug** menu.

P4Prefs.py

More customizations can be done by editing the file `$SNIFF_DIR/lib/python/Sniff/P4Prefs.py`. This file defines constants that define what types of information are shown in the “Lockers” column by default, and whether exclusive locking is enabled at your site or not. For detailed information, please contact the TakeFive support team at sniff-support@takefive.co.at

Known Limitations

- Perforce Labels can currently not be handled inside the SNIFF Adapter.