



Basic Commands

Connecting to the Server

<code>p4 info</code>	Displays information about the Perforce server and client configuration.
<code>p4 login</code>	Authenticates the user with the Perforce server.
<code>p4 set P4PORT=<server:port></code>	Sets the Perforce server address. Example: <code>p4 set P4PORT=perforce.example.com:1666</code>
<code>p4 set P4USER=<username></code>	Sets the Perforce username. Example: <code>p4 set P4USER=johndoe</code>
<code>p4 set P4CLIENT=<workspace></code>	Sets the Perforce workspace (client). Example: <code>p4 set P4CLIENT=johndoe_dev</code>

Workspace Management

<code>p4 client</code>	Opens the client specification form for editing. Allows you to configure the workspace.
<code>p4 client s</code>	Lists all client workspaces known to the Perforce server.
<code>p4 sync</code>	Synchronizes the workspace with the latest version of files from the depot.
<code>p4 sync <file(s)></code>	Synchronizes specific files to the latest version.
<code>p4 sync @label</code>	Synchronizes the workspace to a specific label.
<code>p4 sync #have</code>	Synchronizes the workspace to the revisions you had previously synced.

Adding and Deleting Files

<code>p4 add <file(s)></code>	Marks new files for addition to the depot.
<code>p4 delete <file(s)></code>	Marks files for deletion from the depot.
<code>p4 reconcile</code>	Detects files that have been added, deleted, or modified outside of Perforce and prepares them for submission.

Change Management

Making Changes

<code>p4 edit <file(s)></code>	Opens files for editing. Required before modifying a file under Perforce control.
<code>p4 revert <file(s)></code>	Discards changes made to opened files, reverting them to the last synced version.
<code>p4 diff <file(s)></code>	Displays the differences between the workspace version and the depot version of a file.
<code>p4 resolve <file(s)></code>	Resolves conflicts between the workspace version and the depot version of a file after an update or merge. Important to do before submitting.

Submitting Changes

<code>p4 change</code>	Opens a new changelist for grouping related changes.
<code>p4 submit</code>	Submits the opened files in the current or specified changelist to the depot.
<code>p4 submit -d "<description>"</code>	Submits the changes with a description from command line.
<code>p4 changes</code>	Lists recent changelists.
<code>p4 describe <changelist></code>	Describes a specific changelist, showing the files included and the description.

Branching and Merging

<code>p4 integrate <fromFile> <toFile></code>	Prepares files for merging changes from one branch to another.
<code>p4 merge <fromFile> <toFile></code>	Merges changes from one branch to another (older command).
<code>p4 resolve</code>	Resolves any conflicts after the integration/merge. Crucial before submitting!
<code>p4 branch</code>	Creates a new branch specification.

Advanced Operations

Labels and Attributes

<code>p4 label</code>	Creates or modifies a label specification.
<code>p4 labels</code>	Lists available labels.
<code>p4 tag <file(s)>@<label></code>	Attaches a label to specific file revisions.
<code>p4 attribute</code>	Sets or retrieves file attributes.

Streams

<code>p4 streams</code>	Lists available streams.
<code>p4 stream</code>	Creates or modifies a stream specification.
<code>p4 switch <stream></code>	Switches the workspace to a different stream.
<code>p4 merge and p4 copy</code>	Used for propagating changes between streams.

User and Group Management

<code>p4 user</code>	Creates or modifies a user specification (requires admin privileges).
<code>p4 group</code>	Creates or modifies a group specification (requires admin privileges).
<code>p4 users</code>	Lists all users.

Troubleshooting and Tips

Common Issues

- Conflicts during submit:** Always `p4 resolve` before submitting. Use `p4 diff` to understand the changes.
- Workspace out of date:** Ensure you `p4 sync` regularly to keep your workspace up-to-date.
- Permissions issues:** Check file permissions and ensure the Perforce user has appropriate access.
- Network connectivity:** Verify network connectivity to the Perforce server. Use `p4 info` to check the connection.

Best Practices

- Atomic Changesets:** Group related changes into a single changelist for better tracking and management.
- Descriptive Comments:** Provide clear and concise descriptions for each changelist.
- Regular Synchronization:** Keep your workspace synchronized with the depot to avoid conflicts and integration issues.
- Branching Strategy:** Develop a clear branching strategy to manage different development streams and releases.

Command Aliases (Example)

You can create aliases for frequently used commands for efficiency. For example, in bash:

```
alias psync='p4 sync'
alias psubmit='p4 submit'
```