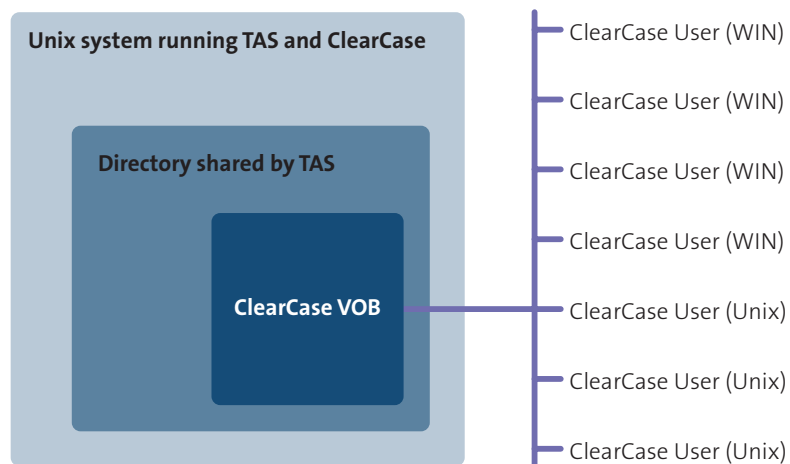


# Using TAS to Simplify a ClearCase Deployment

## Overview

ClearCase is the software asset management package most widely used in a heterogeneous environment. It allows you to manage a development project that spans multiple different platform types. For example, you can have some developers working on Windows workstations and others on Unix systems, all using the same software management controls.

To allow for this distributed architecture, ClearCase makes use of one or more centrally located repositories called Versioned Object Bases or VOBs, which store version data, etc. To access the data, users must define “views”, which specify how a project is organized. These VOBs and views must be available to all developers regardless of their operating system, to ensure the project data are synchronized. The way this global access is achieved is via shared directories on file servers.



The purpose of this document is to describe how TotalNET Advanced Server (TAS) provides the ideal file service framework for making ClearCase simple to use in a multi-platform environment.

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## Prerequisites for ClearCase

In a situation where you are developing on both Unix and Windows systems, it is preferable to locate your file server on a Unix system for the following reasons:

- Unix tends to be more stable and reliable
- Unix systems tend to scale better

ClearCase depends on having shared directories available in such circumstances; it does not provide the file serving capabilities that are required to do the sharing. In other words, it relies on third-party solutions for providing the file sharing utility. Such file server packages must have specific technical requirements to ensure that ClearCase will work as expected. The most important of these required features is the ability to support multiple user sessions per file service connection.

TAS conforms to all of the needs of ClearCase and was the first file server for Unix that was certified by IBM (then Rational), for use with ClearCase.

## Solution

In order to successfully deploy ClearCase for a site that is developing on both Windows and Unix systems, there are a few relatively straightforward steps you must complete:

1. Install ClearCase on the applicable systems.  
Refer to the ClearCase installation guide for installation instructions.
2. Install TAS on one or more Unix systems.  
Refer to the TAS installation guide and the TAS administration guide for instructions on installing TAS and completing an initial setup.
3. Configure a TAS file service to be used by ClearCase.  
TAS can be configured to emulate multiple file services. One of them must be designated as the ClearCase file service. If TAS will be used only for ClearCase, you may only need one file service.
4. Configure an authentication method for the file service.  
The authentication method for file service refers to the way a user at a client workstation will be authorized to use the volumes shared by a TAS file service. For example, the authorization could be via the Unix system, or it could be done via proxy to a Windows system, or via various other options.


TAS allows you to select the authentication method that best suits your environment. This choice is narrowed slightly for a ClearCase file service, but it is still important to consider your selection carefully.

5. Configure a TAS volume (shared directory) to be used for VOB data.  
You must specify a directory on the Unix system that will be used for the VOB data.
6. (Optional) configure a TAS volume (shared directory) to be used for view data.  
If you are using a ClearCase “view”, you must specify a directory to be used for it.

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7. Configure Clearcase to use the VOB.  
Refer to the ClearCase documentation for information on configuring a VOB.

This procedure is made even simpler by the TAS administration GUI (“Framework”), which contains an interactive form specifically for configuring TAS for use with ClearCase. As a result, steps 3 - 6 above can be accomplished via the special configuration page in the Framework called “Configure ClearCase Service”.



The screenshot shows a web form titled "Configure ClearCase Service". It contains several fields and options:

- Service Name:** A text input field with a dropdown menu showing "manna". Below it is the text "or choose an existing service".
- UNIX ClearCase Admin Account:** A text input field.
- NT ClearCase Admin Account:** A text input field.
- VOB Storage Area Path:** A text input field with a "Browse ..." button to its right.
- View Storage Area Path:** A text input field with a "Browse ..." button to its right.
- Authentication:** Three radio button options: "Local", "Gateway", and "Proxy". The "Proxy" option is selected.
- Submit and Reset:** Two buttons at the bottom left of the form.

### Specifications

1. TAS Version.  
TAS version 6.0 and later can be used with ClearCase. The “Configure ClearCase Service” form is available in TAS 7.0 and later.
2. Platforms  
TAS is certified with ClearCase on the following platforms:
  - Solaris/Sparc
  - AIX
  - HPUX
  - Red Hat Enterprise Linux [soon]

### Why TAS?

TAS conforms to all of the needs of ClearCase. IBM (then Rational) certified TAS 5.2 as the first file server based solution for Unix in 1998. At that time, Rational gave TAS developers a test suite to use during product development to assure that future TAS software versions would maintain their compatibility with ClearCase. Since IBM continues to develop ClearCase and enrich its functionality,

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it is important that third party products used with it support the new functionality without end user interruption. TAS certification, during the development process has continued through subsequent versions of ClearCase and TAS, assuring that an investment in the joint technology of the two products is protected in future years.

TAS is centrally managed on the Unix server to streamline software installation and administration. Once TAS is loaded on the Unix server, the TAS administrator can create logical servers, which present themselves as Windows servers to end users. These logical servers support Windows based ACLs and authentication processes to assure compatibility with Windows operating system functions. User shares and their authorized users are then defined on these logical servers to provide authenticated access to user data. Even more importantly, cross platform file locking assures that developers accessing a View are notified that another user has already checked out that View and that they are restricted from making changes until that version is released by the other user. This function assures the synchronization of code across physical platforms and operating systems.

TAS engineers continually develop product to respond to changing feature requirements as well as develop product fixes. Their development incorporates common tools and basic code to deliver a consistent product that is easily upgraded in a production environment. This continual engineering assures product compatibility with ClearCase and other vendor products and functions. For example: TAS version 7.1 supports authentication with Active Directory 2003. Furthermore, the TAS CustomerCare package provides 7x24 Help Desk support: delivering product advice, resolving user issues and when needed, identifying product issues that require Engineering attention. This offloads ClearCase user connectivity issues to TAS support, enabling ClearCase administrators to focus on hardware operating system and network issues.



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1.888.638.2786 1.408.433.8686

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