Getting Started: ClearCase Administrator Roadmap

This roadmap provides an outline of the material that is most useful in helping administrators learn to use ClearCase effectively. This roadmap is organized by the typical sequence that a ClearCase administrator will need to take to perform an initial deployment of ClearCase, and provides an overview of the resources available on developerWorks Rational. However, you may want to just skip to the section that best describes your current learning challenge with ClearCase, then study the material in that section to help you advance to the next level.

Step 1: Understanding ClearCase Administration

If you are going to administer ClearCase you need to know how and why your team should use it. To gain the necessary knowledge and transfer that to the rest of the team, someone on your team needs to go through the ClearCase, ClearCase MetaData, and ClearCase Administration courses. That will give you the nuts and bolts information you need to understand the mechanics of the ClearCase environment. To help the rest of the team understand the overall advantages of using ClearCase, you may want to go through some of the case studies listed below to see how other teams have been successful deploying ClearCase. Understanding the ClearCase environment is key to successful deployment, and the training courses and articles here can help you get started.

- ClearCase Administration: The first ten things
- SCM250 Essentials of Rational ClearCase LT for UCM and Windows
- SCM101 Principles of Software Configuration Management with Rational ClearCase UCM
- SCM470 Mastering Rational ClearCase Administration for Windows
- SCM471 Mastering Rational ClearCase Administration for UNIX
- IBM Rational Curriculum Training Paths
- Rational ClearCase Product Documentation
- Rational ClearCase FAQs
- The Art of ClearCase Deployment

Step 2: Planning Your Infrastructure

Before you can deploy ClearCase you need to do some initial planning for the hardware and network infrastructure. For a small development team, this may be easy. For a large development team or group of development teams, it will require more planning. Deploying ClearCase will vary based upon the size of the team, the size of the project, whether or not you have developers on both Windows and UNIX, and whether you have multiple geographical locations collaborating on the project. In this step you will find selected articles to help you learn about VOB sizing, deploying ClearCase across multiple platforms, and supporting geographically distributed teams.

- Server Guidelines for UCM Deployment
- Guidelines for ClearCase VOB Server Performance Analysis and Tuning
Step 3: Creating an Environment for Your Developers

Understanding how your team will use ClearCase is critical not only to administering and deploying the product efficiently, but also to improving the software development process. You need to decide how people are going to use ClearCase in your shop. It'll be up to you to implement it. Here are some articles that will help. The first major step is to define the “rules of the road” about how merging changes, builds, and releases are performed. If this is your first time, you will want to consider using the Unified Change Management (UCM) capabilities. Choosing UCM will standardize a lot of decisions according to Rational’s set of best practices. If you decide that UCM doesn’t fit your organization’s profile, you will need to define your own rules and implement triggers and scripts that help your team follow them. In addition, you should decide how your team will use the build features in ClearCase to create release areas for your software team. Working with your project manager, the articles below will help you set up the configuration management and build environment.

- SCM101: Principles of Software Configuration Management with Rational ClearCase UCM
- Ground-Level View of a Product Release
- ClearCase: The Ten Best Triggers
- ClearCase: The Ten Best Scripts
- Integrating Multi-Site Development Efforts in Your Spare Time: Actors, Phases, and Distributed Teams
- Team Development Support in IBM WebSphere Studio Application Developer Using Rational ClearCase
- The Art of ClearCase Deployment
- Bridging the CM Gaps: Use Case Analysis of a New Configuration Management System
- Software Configuration Management Strategies and Rational ClearCase: A Practical Introduction
- Building a Rational Software Configuration Management Environment for the IBM e-Business Platform
- Configuration Management — It's Not Just For Source Code
- Baselining Requirement Assets with Rational ClearCase
Step 4: Migrating Assets Into ClearCase

Most ClearCase administrators are already familiar with version control systems and often need to migrate existing data to ClearCase from flat files, a previous version of ClearCase, or another product. The following material can help you with these tasks.

- Migrating a ClearCase Community to Version 2002.05.00
- Scalable Software Configuration Management: Avoiding the Trauma and Expense of Changing SCM Solutions
- Building a Rational Software Configuration Management Environment for the IBM e-Business Platform
- A Strategy for Managing Multiple Baselines with Rational ClearCase
- Software Configuration Management Specification / Evaluation Guide

Step 5: Installing and Configuring ClearCase for Clients

A significant part of the ClearCase administrator’s job is installing and configuring client systems. You will need to work with your development community to get ClearCase installed on all of the desktops of the team members. You will also need to set up an installation area, manage any triggers that you have, and make sure that your developers have a good first experience with using ClearCase.

Step 6: Maintaining the ClearCase Environment

Once ClearCase is up and running your job is not done. For one thing, you will need to plan a backup strategy for the key assets that you are storing in ClearCase VOBS. Also, as your team evolves you may need to make changes in the “rules of the road”, add new build configurations, etc. The article below will give you some perspective on what other teams have done to maintain their ClearCase Environment over time.

- Caring for Your Rational ClearCase VOBS

Step 7: Troubleshooting

After you’ve got your environment up and running, you also need to plan for what happens when Murphy’s Law hits. It is essential that you have a strategy for backing up your ClearCase environment. If you run into problems or questions, you’ll need to do some troubleshooting. Here’s a host of articles on how to do troubleshooting and performance tuning. Troubleshooting problems is an essential part of ClearCase administration, to minimize downtime and get your system up and running again.

- Avoiding Common Problems in Rational ClearCase
- SCM503: When Good VOBS Go Bad
- Caring for Your Rational ClearCase VOBS
- The Magical World of VOB Sizing
- ClearCase VOB Database Troubleshooting
- ClearCase MultiSite Oplog Divergence
- The Dictionary Method: One solution to the Sun V5 C++ compiler problem
Getting Help with Rational ClearCase Performance Problems on Windows NT and Windows 2000
Guidelines for Using Rational XDE with Rational ClearCase UCM

Case Studies

- Data Synchronization Across Enterprise Grids
- A Case Study of Using IBM WebSphere Studio Application Developer with Rational ClearCase LT