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Where did siteprep go?
Installing IBM Rational ClearCase 7.1
and IBM Rational ClearQuest 7.1
in an Enterprise environment

Version 3.0

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History of Change

Version	Date	Comment
1.0	February '09	PowerPoint presentation, initial creation
2.0	March 2009	PowerPoint presentation, updates after presentation at CRUG
2.1	April 2009	PowerPoint presentation, Updates for fixpack 7.1.0.01
3.0	August 2009	Conversion to whitepaper, Updates for fixpack 7.1.0.2

Table of Contents

1 Introduction

ReleaseTEAM is a Software Configuration Management consulting firm, and since 1999 has provided "best in breed" SCM solutions and methodologies to recognize measurable improvements to clients' SDLC.

The information contained in this document is a technical paper augmenting the official IBM documentation. It is intended for IBM Rational ClearCase and ClearQuest administrators and may also be useful for administrators of other IBM Rational brand products.

2 The Challenge

Starting with the 7.1 releases of ClearCase and ClearQuest, IBM Installation Manager (IM) technology is used for installation of all IBM Rational brand products. From the IBM point of view it provides one cohesive installation technology for all IBM tool products across all platforms and all IBM brands and ultimately will make administration and support easier.

The challenge for Rational tools administrators is that they need to familiarize themselves with a new method and established processes will have to be updated and established tools have to be changed.

The good news is that IM has all the features that the previous installation technology had and also works the same on *nix and Windows, which was not the case before.

Unfortunately, the IBM documentation is spread over several documents that do not paint a cohesive picture. Especially ClearCase and ClearQuest documentation and technotes tell the user how to install the tool on one box and omit strategies and process descriptions suitable for an enterprise deployment. The Installation Manager documentation does cover this, but does not have any ClearCase and ClearQuest (or other tool) specific chapters. It is not totally unexpected that the reality of ClearCase and ClearQuest installation requires tool specific documentation and instructions.

3 Overview

This document fills the gap outlined above and also maps the features of the old siteprep based installation process to the new Installation Manager process.

It gives detailed recommendations on how to install IBM Rational ClearCase 7.1 and IBM Rational ClearQuest 7.1 and roll it out in an Enterprise environment.

4 List of Abbreviations

CC   ClearCase

CQ   ClearQuest

IM   Installation Manager

PU   Packaging Utility

SMS   Microsoft Systems Management Server

5 What we did in 7.0 and before

To establish a base for administrators with experience with previous CC and CQ releases, here is a summary of the process used for most Enterprise installations in the past.

On windows, we extracted/copied the install package to a globally accessible network drive and then ran siteprep and saved the configuration(s) in sitedefs.dat file(s). The sitedef.dat file can be edited with a text editor and sometimes we did that for minor tweaks.
To do an install, the sitedefs file gets executed. For big deployments, the windows admin was able to push the install via SMS given the "right" setup and environment.

On *nix, root has to do the installation and everything related to it. The install package was put onto a network share and site_prep was run.
On every server & client, install_release was run to do the install and there was an option to do a full install or link to the release area. Most admins scripted the install in some way to install clients.

6 How does Install Manager do this (and more)

The grand plan is to download every piece of SW only once from the internet and put it in a local repository from where it gets installed onto all clients and servers.

When you download a full install or fixpack (or get it from CD), you have a small standalone repository. The Packaging Utility (PU) can copy the content of this repository to your one big main repository, so all clients and servers have only one location to look to for updates.

Install Manager (IM) does the actual install on every client and server. IM has silent install functionality that can be very helpful for rollout of a large number of clients.

ibm.com

- download full release from Passport Advantage

or

read full release CD/DVD

Create / update your repository with Packaging Utility

Internet

Firewall

install servers and clients from repository with Installation Manager

Corporate Intranet
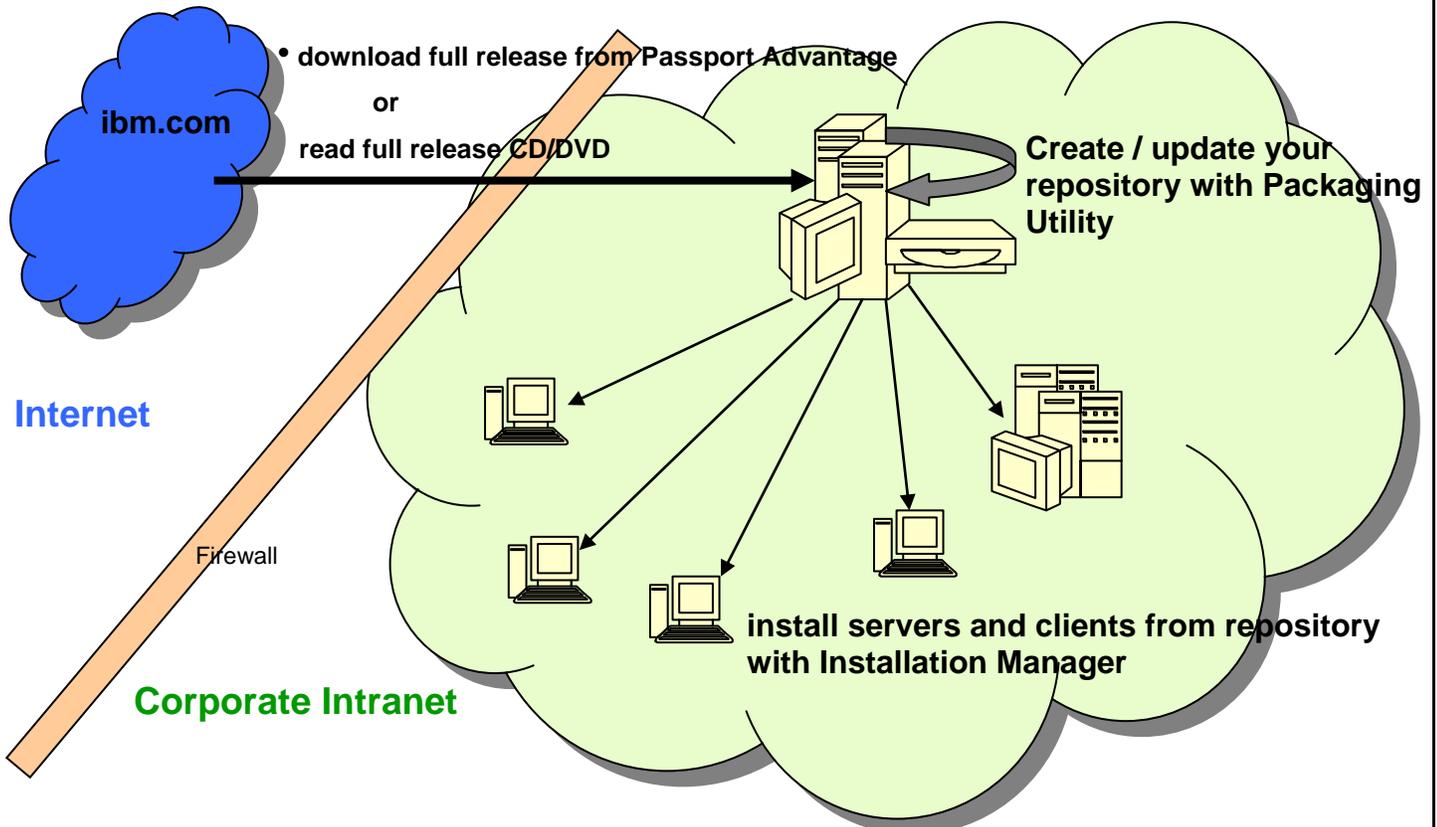
7 Planning your Repository(s)

Most IBM install instructions have the strategy to put every download in its own directory and add that as a repository to IM and not bother with PU. I think that this will be hard to maintain in the long run and having a finite number of repositories with well defined contents is a better way of doing things.

A repository can contain packages for several OSes; IM has only packages for the current platform selectable, the others are "grayed out".

What server/share do you put it on?

- ftp and http protocols supported
- share accessible from all clients is the most convenient. Netapp or Samba shared Unix location.

Estimate size(s): Per documentation / "word of mouth": space for full install needed only once. Fixpacks and ifixes stored separately in repository and can be selected at install time or not. Don't underestimate it though; the first fixpack is 350 MB/550MB/620MB

IM has a concept of a functional group. Tools that have dependencies are forced to be in the same group. In the 2003.06 versions of Rational tools, upgrading a client could be a serious challenge if the client had all/many Rational tools installed as it wanted to upgrade the whole suite or nothing. The IM group defrays this issue a bit and still has it, in that it forces some tools in the same group to be upgraded together. ClearCase, ClearQuest, ReqPro and the Rational License Manager are all in the "SDLC" group. CC and CQ have to be upgraded in lockstep.

How does that apply to repository planning? Given the sizes of the first 2 CC/CQ fixpacks I don't think it makes sense to put tools of different groups in one repository.
Since the fixpack install still needs access to the repository for the full install, having a repository per group or per tool seems to make the most sense to me. Whether to combining platforms or not makes sense depends on the shares you have available and general need in your company.

IM itself can not be copied with PU (errors out with "files missing"), so it needs its own structure.

Example repository structure:

- Main-dir (share that is readable for all users/clients that need it, writable for admin)
    - IM-dir
        - Full version dir OS1
        - Full version dir next OS (need one dir per OS)
        - Updates1 dir (package contains updates for all OSes, You need to make a new dir for every update – or rename the old one so the name for "latest & greatest" remains constant to make client updates easy)
    - SW-dir
        - Group1/OS1 repository
        - Group1/OS2 repository
        - Group2/OS1 repository
        - …
    - Silent-install-input-dir (contains input files for silent install)

- Admin-dir (admin access only needed)
  - Silent-install-record-dir (contains data used to record input files for silent install)
    - Server-config (one dir for every distinct server)
    - Client-config (one dir for every distinct client)

8 Boot strap: install Installation Manager and Packaging Utility

Install Manager comes with the 7.1 full product versions, the Package Utility does not. To properly bootstrap, installing and configuring Installation Manager and the Packaging Utility before doing any 7.1 product install is the key to an enterprise rollout.

Documentation:http://publib.boulder.ibm.com/infocenter/install/v1r2/index.jsp

Note: This url has release 1.2 embedded but seems to always contain "latest & greatest". It has morphed from 1.2 to 1.3 to 1.3.1 between Jan 2009 and August 2009.

8.1 Downloading and Installing IM

- http://www-01.ibm.com/software/awdtools/installmanager/support/download.html -> IBM Installation Manager, Version <latest>, 1.3.1 as of this writing.
  This web site contains fix packs and the full install for Installation Manager.

  - Extract the compressed file into an appropriate directory.

  - Run install.exe (Windows), or install (Linux/Solaris/AIX).

  - The Installation Manager installer will be launched. Follow the wizard pages to install it.

  - IBM Installation Manager will start at completion.

- Win installs into C:\Program Files\IBM\Installation Manager

- *nix installs into /opt/IBM/InstallationManager/eclipse

- On SLED, it gets added into the "Computer -> More Applications" menu.
  From the command line /opt/IBM/InstallationManager/eclipse/launcher starts it. You must be root to run it.

- You do not have to install IM on every box. It can be run from a central network location. Having one central install and IM not showing up in GUI's may be the better option for controlling things centrally. (See also 10.1 Installing Products with IM)

8.2 Downloading and Installing PU

- http://www-01.ibm.com/software/awdtools/installmanager/support/download.html -> IBM Packaging Utility, Version <latest>, 1.3.1 as of this writing.

  - Download and unzip into a tmp dir

  - Start IBM Installation Manager.

  - On the Start page of Installation Manager, click File > Preferences, and then click Repositories. The Repositories page opens.

  - On the Repositories page, click Add Repository.

  - On the Add repository window, browse to and enter the file path to the disk_* directory. For example, enter C:\temp\disk_win32, select the diskTag.inf file, select Open, and click OK.

- Click OK to close the Preference page.
  - Installation of the fix pack will begin by clicking Install or Update .
  - Set "Shared Resources Directory" – needs enough space for shared resources of all future packages. Shared between PU, CC, CQ, …
  Default Win: C:\Program Files\IBM\Shared
  Default *nix: /opt/ibm/IMShared

- Win installs into C:\Program Files\IBM\Packaging Utility

- *nix installs into /opt/IBM/PackagingUtility

- Note: although there is a win and lx download, the win version installed just fine on lx from my central repository

9 Loading your Repository(s)

9.1 PU - Loading a Repository from PAOnline - NOT

The PU documentation made me think that I could load my repository via PU from Passport Advantage Online (PAOnline), but CC and CQ didn't show up in there.

It turns out that not all tools are supported for this kind of download. My guess is that the package size has something to do with this. BuildForge, ClearCase, ClearQuest and Purify are not supported.

As of March 4th 2009, the following packages are available for PPA download

Rational Application Developer
Rational Asset Manager (Client and Server)
Rational Business Developer
Rational Data Architect
Rational Functional Tester
Rational Manual Tester
Rational Method Composer
Rational Modeling Extension
Rational Performance Tester
Rational Professional Bundle
Rational Quality Manager Express edition
Rational Quality Manager Standard Edition
Rational Requirements Composer (Client and Server)
Rational Robot
Rational SOA Tester
Rational Software Architect for WebSphere
Rational Software Architect Standard Edition
Rational Software Modeler
Rational System Developer
Rational Test Manager
Product bundle that consists of Rational Software Modeler and Rational Data Architect

9.2 PU - Loading a Repository

This is the procedure that works for all tools.

- Manually download the zip file from Passport Advantage or acquire the original SW CDs.

- If you did the download, unzip into a tmp directory.

- If you have the SW on CDs, you must unzip or copy all disks into the same common directory such as C:\productA\unzip

- "Open Repository" and browse to dir you unzipped into (parent dir of disk1) or (easier to select) to "significant" file, either repository.config or diskTag.inf.

- A zip file can also be a repository, but it only works with some (PU zip is ok, CC or CQ is definitely not, 90MB License Manager didn't work either).

- Doing a regular copy of the whole repository worked and kept the repository usable.

- For good housekeeping and practice, copy PU itself from the tmp dir you extracted it into to your SW repository
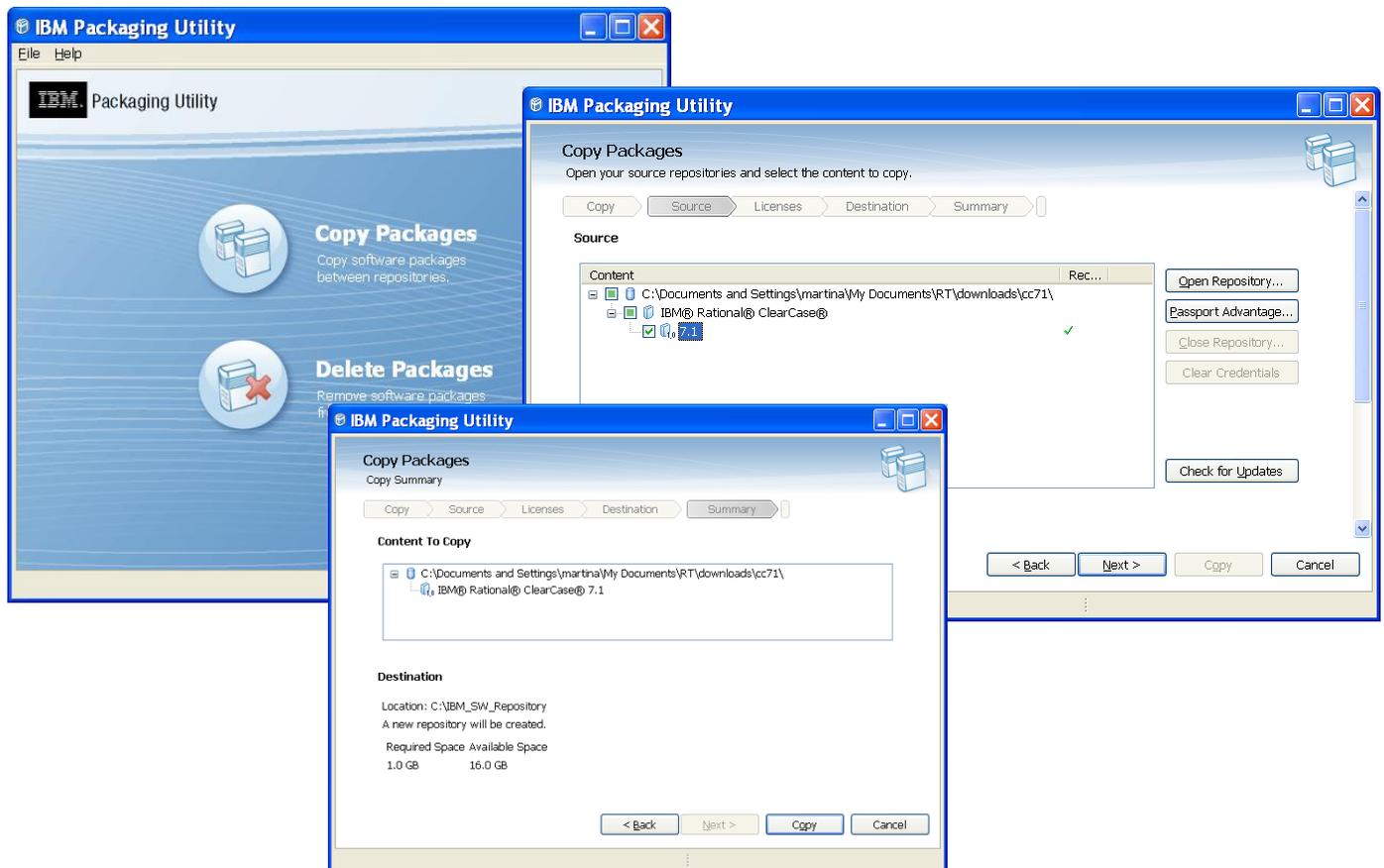
9.3 PU – Updating Repositories

The PU documentation also made me think that I could update my repository via PU from the IBM web. But the PU "Check for Updates" button does not automagically find ClearCase and ClearQuest Fixpacks. Most likely the same restrictions as with the full installation load.

So you will continue to do what you used to do: download from the IBM support site and unzip. Then copy with PU into your repository, just like you did the full install package.

IM updates need to be unzipped directly into the repository and you need to make a separate dir for every update.

10 (Test) Install

This chapter is about getting your first exposure to 7.1. You can read this whole doc and do the recording of your response file and silent install form the get-go or follow my path of installing something first in a test environment and verifying 7.1 for your environment and then use the silent install for your rollout.

Make sure that you test your triggers and custom tooling, especially on win, since default installation paths have changed. Or carefully force the old paths again, see following chapters for more details.

10.1 Installing Products with IM

Some general info first that applies to all platforms and tools.

First, you need to configure your repository or repositories in the preferences
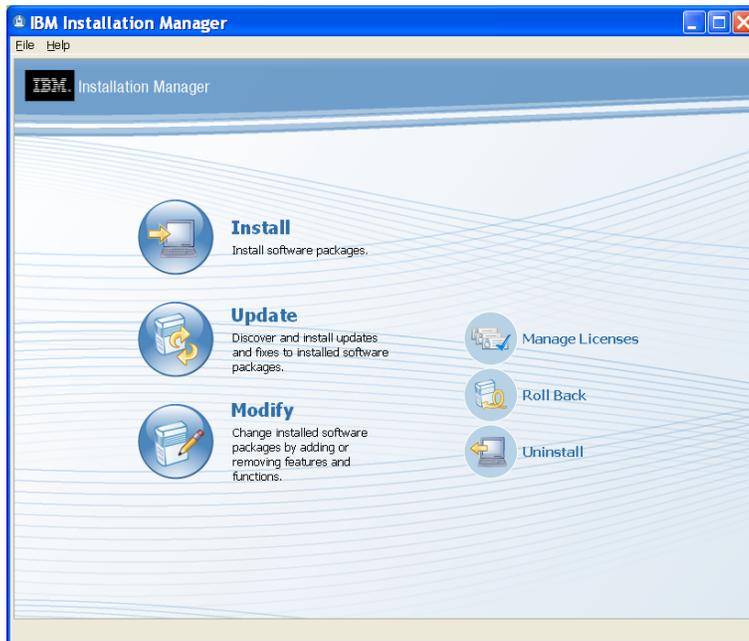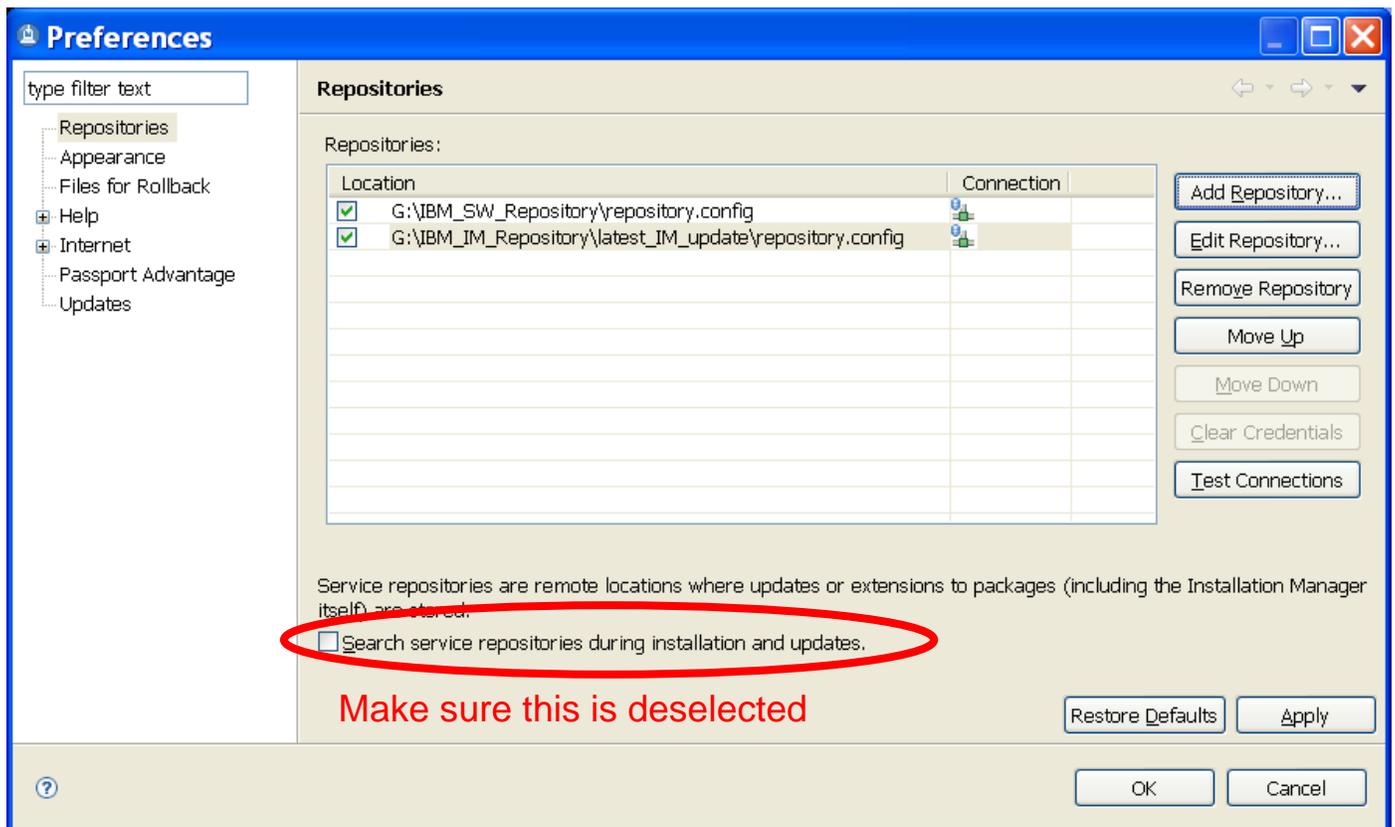
If "Search Service repositories" is enabled, it will find fixpacks on the internet and download them. In enterprise settings, you definitely do NOT want clients upgrading themselves without being controlled by you.

When installing the first app, the location of the shared group resources, the "Shared Resources Directory" has to be set. It needs enough space for shared resources of all future packages. Shared between PU, CC, CQ, …
Default Win: C:\Program Files\IBM\Shared
Default *nix: /opt/ibm/IMShared

When installing a product IM analyzes the already installed packages and decides whether it needs to go into one of the existing groups or a new group.
LicenseManager, CC, CQ and ReqPro go into the same group. BuildForge has a separate group.

The default Package Group Name (for LicenseManager, CC, CQ, …) is "IBM Rational SDLC".
The default Win location is: C:\Program Files\IBM\RationalSDLC
The default *nix location is: /opt/ibm/RationalSDLC.

Group names are to separate apps that can't "share". I used Win: C:\Program Files\IBM\Rational and *nix: /opt/ibm/rational

Note that the Installation Manager *nix default path is in /opt/IBM; so there is an /opt/IBM for IM and a /opt/ibm for apps.

Also, on Vista, if users are not "(local) Administrator", the install path may NOT be in C:\Program Files

Lastly, think carefully about your win group path since you just may have your current install path hard coded in triggers etc. *nix paths have backward compatibility via links.

The IM "brain" is in "C:\Documents and Settings\All Users\Application Data\IBM\Installation Manager" or /var/ibm/InstallationManager

IM is the only product listed in "Add or Remove Programs". If you want to remove apps, you need to do so via IM. There was a cciug thread where a user somehow managed to do a CC uninstall outside of IM and could never get IM to install it again (already installed). He ended up reimaging his PC.

10.2 Installing Products with IM - Win

If you are upgrading, you must uninstall with rationaluninstalltool.exe; see https://publib.boulder.ibm.com/infocenter/cqhelp/v7r1m0/topic/com.ibm.rational.clearquest.install_upgrade.doc/topics/c_uninstall_ratl_prod.htm

If anything other than CC and/or CQ, e.g. CCRC, is also installed in the old install dir, e.g. C:\Proogram Files\Rational, the uninstalltool will also delete its files and render it unusable. A regular uninstall of CCRC or other tools beforehand is strongly recommended.

If installing on a PC that had CQ (7.0) installed and uninstalled previously, Eclipse may not work until all CQ remnants are removed.

- Follow http://www-01.ibm.com/support/docview.wss?uid=swg21193899
- Reboot
- Install 7.1
- Another cycle of uninstall, clean registry, reboot, install may be needed.

Important: remember to save license / registry data on the respective servers before any uninstall.

10.3 ClearCase Install *nix (Linux used)

The *nix install has quite a different look and feel from the install of previous versions.

- Uninstall via 7.0 deinstall – remember to save license / registry data on the respective servers before the uninstall.

- Su to root and start IM via /opt/IBM/InstallationManager/eclipse/launcher

- Install is "full copy", no more choosing between "full copy", "standard" and "linked".

- Install paths and links

    – /opt/rational dir is still created; It has links to /opt/ibm/<group-path>.

    – /usr/atria is also still created as a link

    – /var/adm/rational is unchanged from V7.0; /var/adm/atria link is created

- Linux changes

    – Section how to manually recompile the kernel is gone from the manual

    – "ClearCase full function" makes a "ClearCase Remote Client" entry in the Application Browser

IBM Installation Manager

Install Packages
Select the packages you want to install.

Installation Packages	Status	Vendor	License Key Type
☐ 📦 IBM® Rational® ClearCase®			
▼ ■ 📦 IBM® Rational® ClearCase®			
☐ 📦 Version 7.1		IBM	
▼ ☐ 📦 IBM Packaging Utility			
☐ 📦 Version 1.2.1		IBM	

☐ Show all versions   [Check for Other Versions and Extensions]

Details

IBM® Rational® ClearCase® 7.1

Comprehensive software configuration management that helps teams control everything that evolves in the development process. Features Snapshot and Dynamic Views, advanced build management, and Unified Change Management. More info...

[< Back] [Next >] [Install] [Cancel]

IBM Installation Manager

Install Packages
Select the features you want to install.

[Install] [Prerequisite] [Licenses] [Location] [Features] [Summary]

Features

▼ ■ 📦 IBM® Rational® ClearCase® 7.1
    ☑ ClearCase Full Function Installation
    ☐ ClearCase Minimal Developer Installation
    ☐ ClearCase Server-only Installation
    ☐ ClearCase z/OS Extensions
  ▼ ☐ Multisite Full Function Installation
    ☐ ClearCase Multisite Global Monitor
    ☐ Multisite Shipping Server-only Installation
    ☐ ClearQuest Integration with ClearCase
    ☐ CM Server for ClearCase Remote Clients

Make sure you select "Full Function" if you want a graphical version tree and xclearcase

The different features / installation options are not explained in the documentation.

Installation Manager help says:

– CC Full Function: Comprehensive sw configuration management that helps teams control everything that evolves in the development process. Features Snapshot and Dynamic Views, advanced build management and Unified Change Management

– CC Minimal Developer Installation (default): This limited CC product installation contains a minimal set of sw required to develop under CC. It includes all the features of ClearCase with the following exceptions: No Graphical User Interface (GUI) tools are installed. No tools for importing files from other source-control systems are installed. No integrations with ToolTalk or SoftBench are available.
From tech note http://www-01.ibm.com/support/docview.wss?ratlid=cctocbody&rs=984&uid=swg21146339 : ClearCase Minimal Developer Installation - installs the smallest number of ClearCase components required for a command-line user's software development workstation.
These components include the MVFS, as well as cleartool, clearmake, the graphical diff and merge tools, and view/VOB server support, but do not include other GUI utilities, tools for importing files from other source-control systems, or integrations with ToolTalk or SoftBench.
From tests: "lsvtree –gra" is missing in "Minimal Developer Install"
ToolTalk and SoftBench integrations were last described in the CC2 User's Guide (http://techpubs.sgi.com/library/tpl/cgibin/browse.cgi?coll=0530&db=bks&cmd=toc&pth=/SGI_EndUser/ClrC_UG) . All Google hits are pretty old. Not sure whether it really (still) works.

– CC Server-only Installation: This limited ClearCase product installation contains the minimal set of software required to host a "view" server or "vob" server. The on-line documentation is not installed. Most of the ClearCase client sw is not installed. The ClearCase MVFS filesystem is not installed.

– CC z/OS Extensions: <install CC for z/OS development>

– MultiSite Full Function Installation: This is a full feature MultiSite product collection. A system installed with this component will have all the MultiSite features available, including VOB replica creation, synchronization and administration.

– CC MultiSite Global Monitor (prerequisite: CC MS Full Function. needs /usr/local/ibm) : CC MultiSite Global Monitor reduces the cost of ownership by providing a single operations portal that combines CC performance data and administration with systems management data. CC MS Global Monitor provides realtime and historical reports directly in the IBM Tivoli Enterprise ™ Portal. It enables an administrator address issues related to global deployment before CC users (end of text, looks like it is missing something)

– MultiSite Shipping Server-only Installation: This limited feature CC product installation contains the minimal set of sw required to store and forward files using the CC Product Family Store-and-Forward capability. The on-line documentation is not installed. The ClearCase MVFS filesystem is not installed.

– ClearQuest Integration with CC: Enables process and workflow integration between CC and CQ, to provide extended functionality. Supports both UCM and Base CC Integrations.

– CM Server for CC Remote Clients: Change Management (CM) Server is a scalable Web server infrastructure that provides support to CC Remote Clients. It leverages the performance, security, scalability and administration of WebSphere® Application Server to provide and enterprise WAN solution to CC.

The Global Monitor install requires that the Tivoli Enterprise Monitoring Server and Tivoli Enterprise Portal Server in IBM Tivoli Monitoring are already installed. See CC install help for details.
Help is: Installing & Upgrading -> Deploying CC -> Planning the installation of Global Monitor
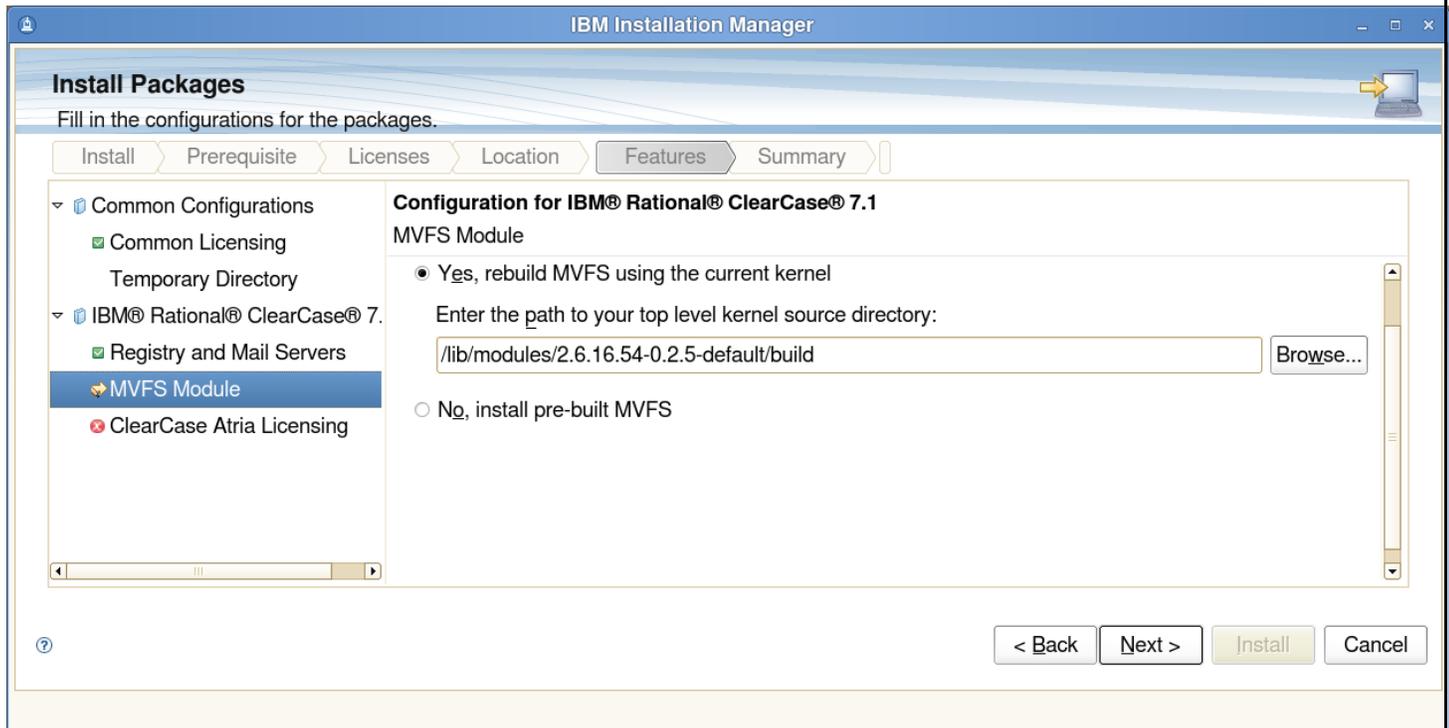
Logs can be viewed in the IM via File -> View Log. Its mostly IM step logs. They are stored in /var/ibm/InstallationManager/logs. There is also a "native" directory in there that has snippets that look like pieces from the old install. I did not find any log of the kernel recompile.
Below is an example of a log.

10.4 ClearCase Install Win

A picture is worth a thousand words. Below are screenshots of the CC Win install. It's a new GUI but the contents don't differ much from the old one.
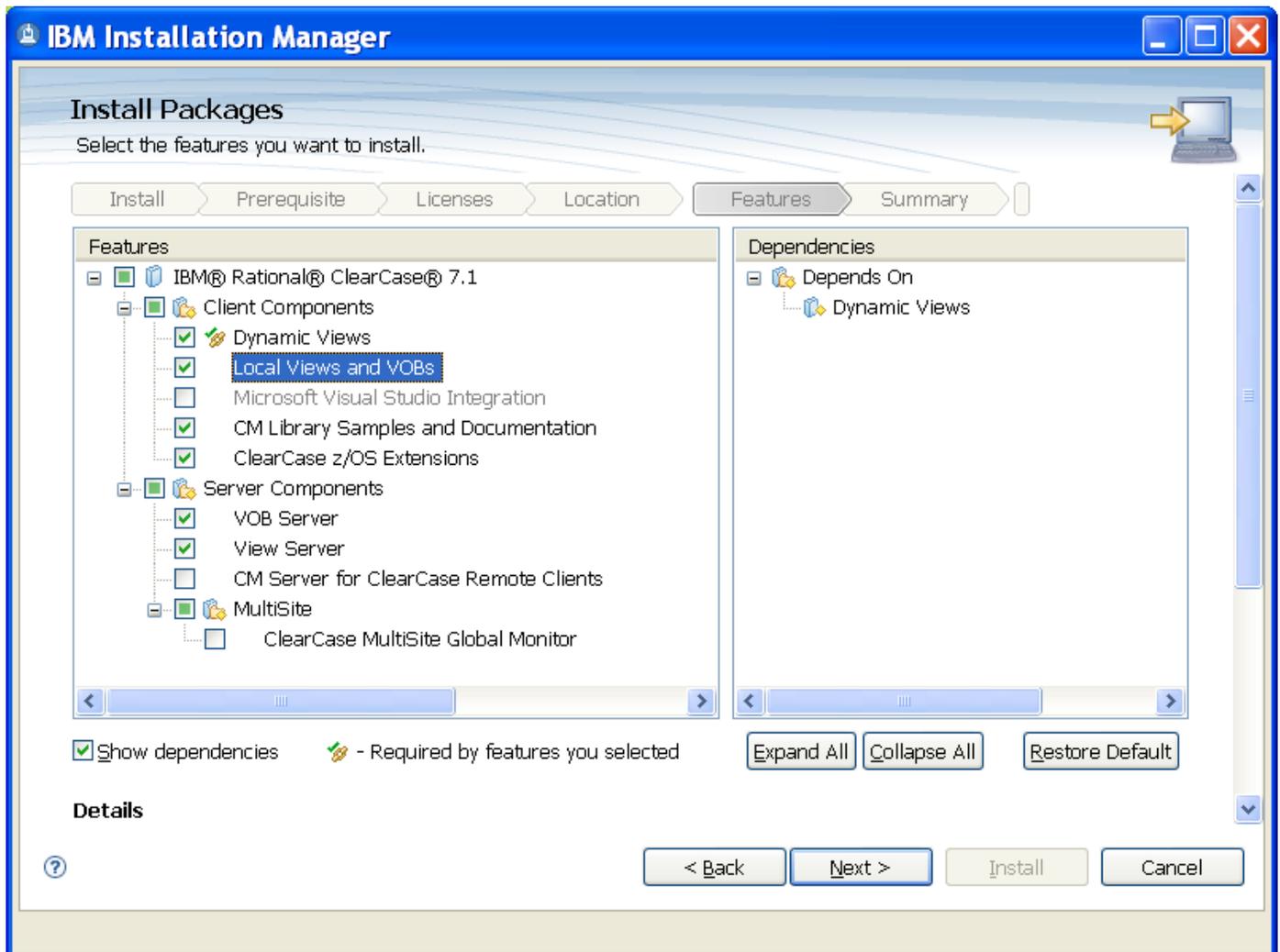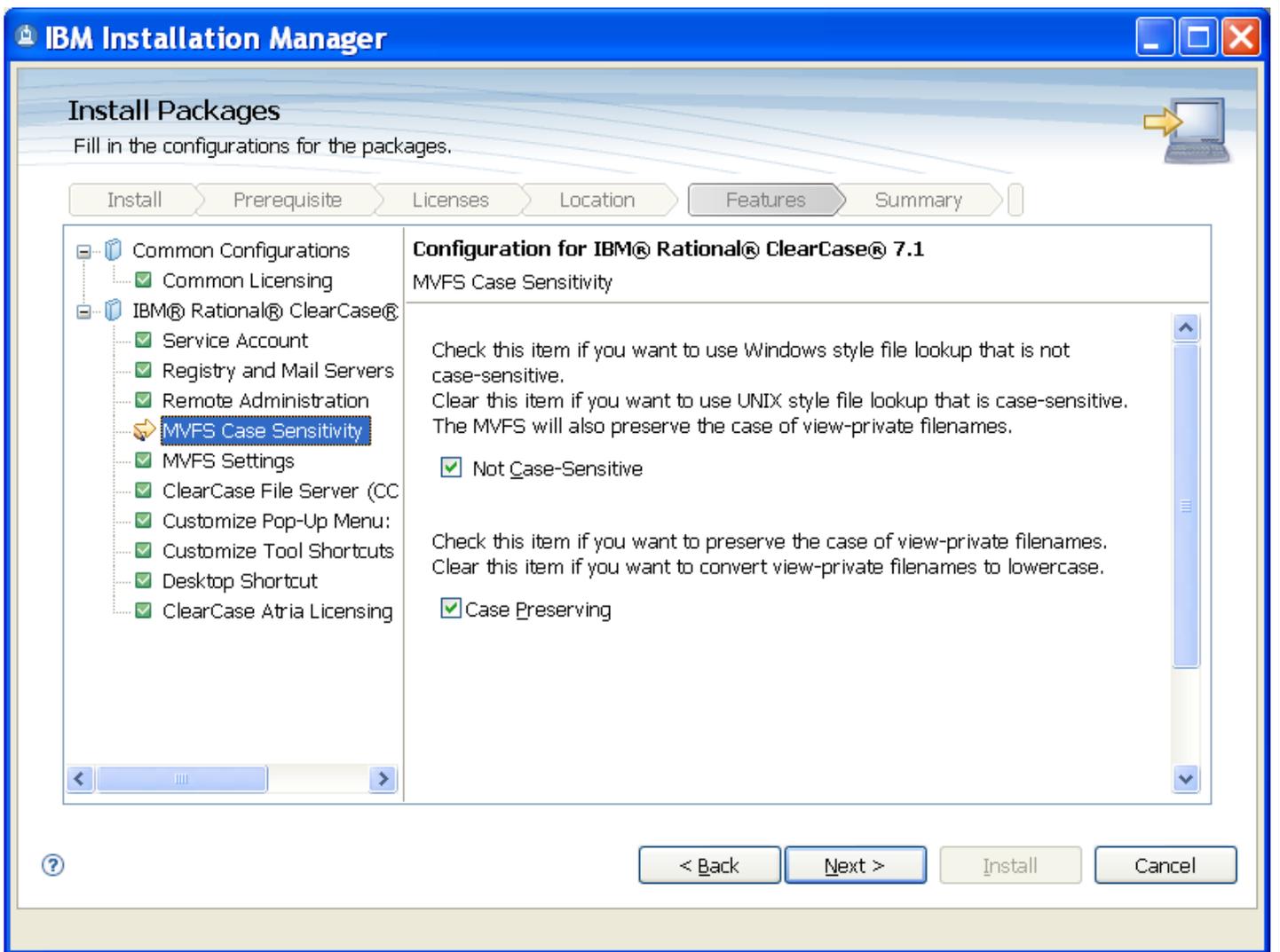
- VisStudio integration not enabled (only enabled when VisStudio is already installed).

- On my 3 year old "normal" PC (1.5 GHz, 2 GB Ram), I had to close all programs and "not touch" or the install (admittedly a server install) would fail with various errors.

- CC install/uninstall does display a reboot now y/n at the end of an interactive install. If the system is left alone long enough, it will reboot automatically. (I had stepped away and the screen locked and when I came back and unlocked, it just started rebooting)

- Install CC after CQ worked

- **Important:** Fixpack 7.1.0.2 requires that ClearCase is stopped before the install. The install process does not attempt to stop ClearCase. This breaks the silent install. RFE RATLC01291508 has been filed. Any automated/scripted install can stop ClearCase by following technote http://www-01.ibm.com/support/docview.wss?rs=0&uid=swg21134178.

10.5 ClearQuest Install Win

A picture is worth a thousand words. Below are screenshots of the CQ Win install. It's a new GUI but the contents don't differ much from the old one.

IBM Installation Manager(Recording...)
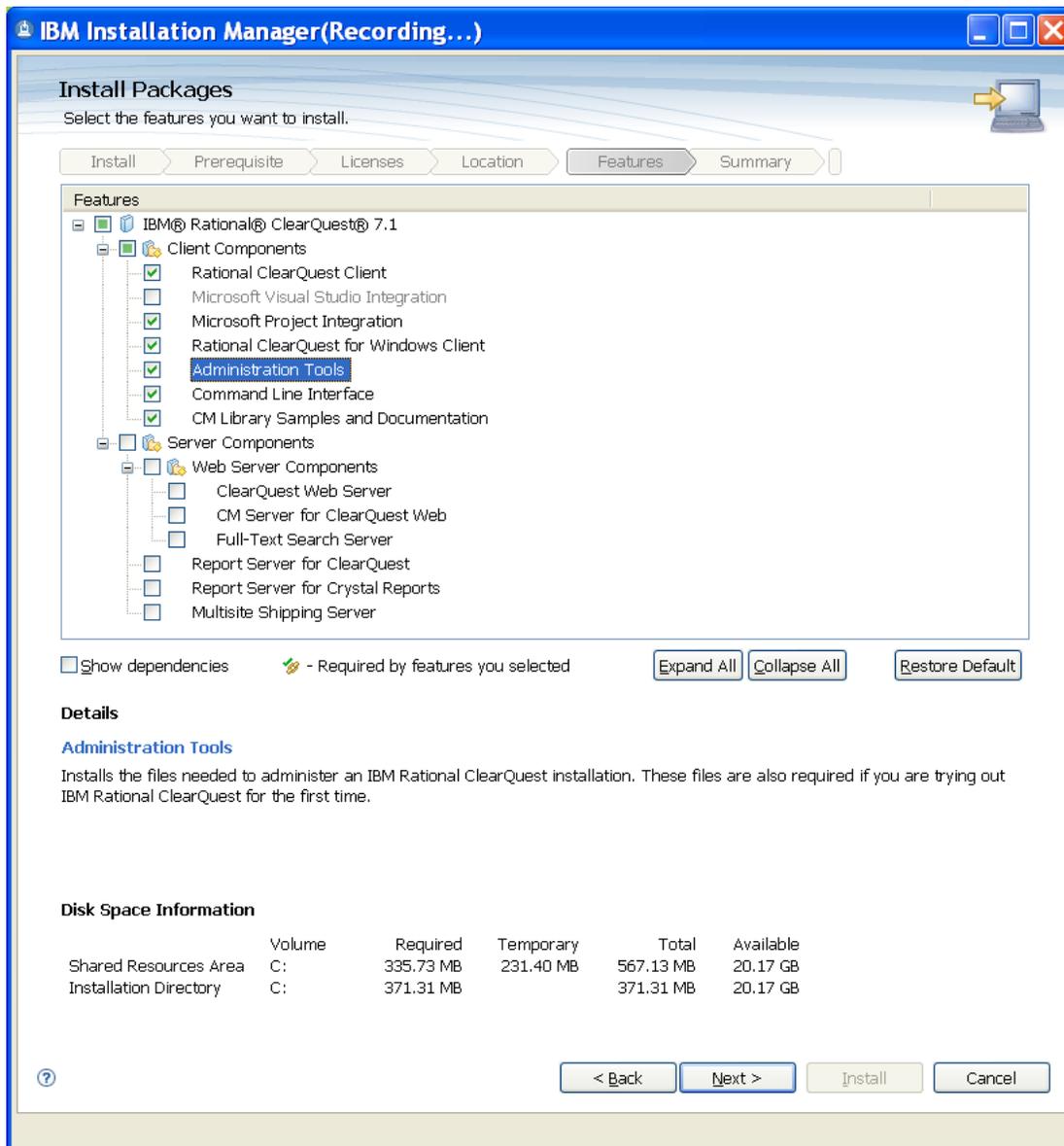
Install Packages
❌ SMTP server is required.

Install ▷ Prerequisite ▷ Licenses ▷ Location ▷ **Features** ▷ Summary

- Common Configurations
  - ☑ Common Licensing
- IBM® Rational® ClearQuest(
  - E-mail Notification

Configuration for IBM® Rational® ClearQuest® 7.1
E-mail Notification

☑ Enable E-mail notification

Configure the Simple Mail Transport Protocol (SMTP).

Outgoing SMTP server (required): [   ]

Text to use as the E-mail "From" field (required): [   ]

< Back   Next >   Install   Cancel

10.6 ClearQuest Install *nix (Linux used)

The CQ *nix install is not that different from the win install, but there are fewer compontents available. Only the CQ Eclipse GUI is available as a client. The Designer and User administration is only available on Windows.

IBM Installation Manager(Recording...)

Modify Packages

Select the features you want to install or unselect the features you want to remove.

Modify → Features → Summary →

Features

▽ ☐ ⓘ IBM® Rational® ClearQuest® 7.1
  ▽ ☑ Client Components
    ☑ Rational ClearQuest Client
    ☑ Administration Tools
    ☑ Command Line Interface
    ☑ CM Library Samples and Documentation
  ▽ ☐ Server Components
    ▽ ☐ Web Server Components
      ☐ ClearQuest Web Server
      ☐ CM Server for ClearQuest Web
      ☐ Full-Text Search Server
    ☐ Report Server for ClearQuest
    ☐ Report Server for Crystal Reports
    ☐ Multisite Shipping Server

☐ Show dependencies   ✦ - Required by features you selected   [Expand All] [Collapse All]   [Restore]

Details

Administration Tools

Installs the files needed to administer an IBM Rational ClearQuest installation. These files are also required if you are trying out IBM Rational ClearQuest for the first time.

Disk Space Information

⑦   [< Back] [Next >] [Modify] [Cancel]

IBM Installation Manager(Recording...)

Install Packages

⊗ Text in the e-mail "From" field is required.

Install | Prerequisite | Licenses | Location | **Features** | Summary

▽ 📁 Common Configurations
    ☑ Common Licensing
    ☑ Temporary Directory
▽ 📁 IBM® Rational® ClearQuest® 7.1
    ➡ E-mail Notification

Configuration for IBM® Rational® ClearQuest® 7.1
E-mail Notification

☑ Enable E-mail notification

    Configure the Simple Mail Transport Protocol (SMTP).

    Text to use as the E-mail "From" field (required): [_____]

⑦   < Back | Next > | Install | Cancel

11 Recording Your Response Files

A silent install is the method to use to not have to enter all the detail info for every client (and server) install and to be assured that all installs are identical. To be able to run a silent install, a response file has to be created first. It can be created by editing a template or or an existing response file or just recorded. Recording is the least error prone method.

Here is how you record a response file:

Win: cd C:\Program Files\IBM\Installation Manager\eclipse

*nix: cd /opt/IBM/InstallationManager/eclipse

IBMIM –record *<response file and path name>* [-skipInstall *a writable directory for agent data location>*] [-log *<log file and path name>]*

From the Manual

– Ensure the file paths you enter exist; Installation Manager will not create directories for the response file and the log file.

- You can record a response file without installing or uninstalling a product by adding the optional –skipInstall <*agentDataLocation*>.
  Note that <*agentDataLocation*> must be a writable directory. The argument does two things.

  1) It causes the Installation Manager to save the installation data to this location.

  2) The package will not be fully installed. The artifacts will not be downloaded and the installation actions will not be executed.

- You can use the same <*agentDataLocation*> in the next recording session to record updates or modifications to the product, or to record license management and these changes will be added incrementally to the agent data location. Note that the products installed or preferences, including repository settings, that you may have set on install when not using the -skipInstall argument are not be stored. Using -skipInstall will make installation faster because the Installation Manager is not installing the product, it is just recording the installation data

For example

IBMIM.exe -record c:\logs\responsefileCC.xml -skipInstall c:\recordData -log c:\logs\record_logCC.xml

IBMIM -record c:\logs\responsefileCQ.xml -skipInstall c:\recordData -log c:\logs\record_logCQ.xml

IBMIM -record /root/IMlogs/responsefileCC_lx.xml -skipInstall /root/recordData -log /root/IMlogs/record_logCC.xml

IBMIM -record /root/IMlogs/responsefileCQ_lx.xml -skipInstall /root/recordData -log /root/IMlogs/record_logCQ.xml

Note: Starting with IM 1.3.1, you can record the silent install for IM as follows:
install.exe -skipinstall C:\temp -record C:\CCIMinstall.xml -vmargs -Dcom.ibm.cic.agent.hidden=false

- (Recording…) shows up in the IM title.

- CQ install: \common\GSKit_70_4_Installation\setup.exe just hangs in Record mode (no skipInstall). (in use by java-something)
  -> CQ record needs to be done with skipInstall.

- -skipInstall starts IM and uses <agentDataLocation> as independent install, i.e. if products are already installed, it won't remember anything. Make sure to use the same names in all locations.
  Make a new location if you want to separate product responses.

- The record for a CQ install also records CC keys of an already installed CC and vice versa. It only has the <install> section for the product to be installed.

- The response file doesn't show up during the run, only after an "Exit" in IM.

- You can record install of more than one product at a time. I was able to install CQ and CC silently in one run by giving the silent install more than one response file and you can also edit/merge response files (as long as you do it "right"). YMMV.

- It never made a log for any of my record runs.

- It is a really good idea to make sure whatever is selected results in a working installation, i.e. you have to do an install all the way and do some testing.

- SAVE the <agentDataLocation>, you will need it to record the response file for fix pack / ifix installs.

12 Silent Install

To do a silent install, you have to be able to access an IM installation, either local or from a network drive.

Win example:

cd C:\Program Files\IBM\Installation Manager\eclipse

IBMIMc.exe --launcher.ini silent-install.ini -input <response file path and name> -log <log file path and name>

e.g.
IBMIMc.exe --launcher.ini silent-install.ini -input c:\logs\responsefileCQ.xml –log c:\logs\silent_install_log.xml

Note: If you want to install IM and a product silently and IM may or may not already be installed on a box, you can run cinstall.exe with a response file for IM and the product and it will not complain if IM is already installed.

*nix example:

cd /opt/IBM/InstallationManager/eclipse

IBMIM --launcher.ini silent-install.ini -input <response file path and name> -log <log file path and name>

e.g.
IBMIM --launcher.ini silent-install.ini -input /root/IMlogs/responsefileCC_lx.xml –log /root/IMlogs/silen_installCC.xml

A few things to note

- Hangup when apps (Firefox, word) are open. Always make sure Web browsers are closed.

- Initial (silent) install of either CC or CQ takes up to 30 minutes. 2nd app much faster, ~ 15 min.

- CC Fixpack 7.1.0.2 requires that ClearCase is stopped before the install. The install process does not attempt to stop ClearCase. This breaks the silent install. RFE RATLC01291508 has been filed. Any automated/scripted install can stop ClearCase by following technote
  http://www-01.ibm.com/support/docview.wss?rs=0&uid=swg21134178

- Silent CC install automatically reboots the system

- The silent-install log is empty except for an xml framework (ok case).

```
<?xml version="1.0" encoding="UTF-8"?>
<result>
</result>
```

  I forced a lx error

```
<result>
<error>
The Installation Manager has determined that ClearCase version 7.0.1 is currently
installed.
Please uninstall ClearCase 7.0.1 first.
</error>
</result>
```

- Otherwise, on win I only managed hangs or ok (silent) installs. I'm not sure that failures will be easy to diagnose. I never saw any progress message logged. The regular install does show progress pieces.

- I did find logs in C:\Documents and Settings\All Users\Application Data\IBM\Installation Manager\logs that can be viewed from IM: File -> Installation History -> <select a log> -> View Log

13 Recording Your Response Files & Silent Install Recommended Use

– Always record via skipInstall

– Create a separate *<agentDataLocation>* for every "class" of client and/or server you have in your network and generate separate, well named response files. In many ways the response file is documentation of installed features and configurations.

– make sure that you install/update all production boxes from the response file for their class. If you have unique servers, you can do the install/update manually and save yourself the overhead. I think as soon as you have 2 boxes that are supposed to be identical, creating a response file is very much worth the effort.

– Come up with your strategy of how to install multiple products and test it.
(install one tool at a time, install several tools in the same run, …)

– To NOT have the client search the internet for updates, make sure the response file has setting <preference value='false' name='offering.service.repositories.areUsed'/>

14 Push or Pull? Options for the Server/Client Install

– Install IM on all servers and clients where a product is to be installed

– This really is a win topic. On *nix ssh'ing into a box and running a script is a routine task done by root.

– Push: run bat scripts as part of box startup or user logon. Your windows admin will know what is in place at your company.

– Pull: have the user run an app or just a bat file.

– In either case, you can call InstallationManager in "silent" mode.

– The "silent IM bat" can be run from Microsoft Systems Management Server (SMS).

15 The New Stuff: MODIFY/update/rollback/uninstall

– A IM "modify" doesn't pop up the detail questions for features that are already installed.

– It "modifies" the whole group, e.g. CC and CQ and …

– A IM "modify" does pop up the detail questions for features that are to be installed additionally.

16 The New Stuff: modify/UPDATE/rollback/uninstall

- It can be configured to look on the internet or only in the internal repository. To not look on the internet make sure you have done IM -> File -> Preferences : deselect "Search Service repositories during installation and updates"
or in a response file:
<preference value='false' name='offering.service.repositories.areUsed'/>

- IM update (via local update, see : IM download site for other strategies)

  – Download update package com.ibm.cic.agent.offering.zip (480 MB for all platforms) from IM download site (http://www-01.ibm.com/software/awdtools/installmanager/support/download.html)

  – Unzip into its own directory

  – Add that directory as a repository for IM

- As of IM 1.3, select File -> Preferences -> Updates -> Search for IM updates; Otherwise it won't find IM updates
- Start IM -> update : It will find the new IM version

- CC/CQ update:
  - Download zip(s) from web (http://www-01.ibm.com/support/docview.wss?rcss=rtlcc&rs=984&uid=swg21265307#Version%207.1)
  - There is a separate zip for CCRC and CCRC extensions.
  - Extract to tmp dir
  - Use PU to copy into your SW Repository
  - You can unzip all zips into the same tmp dir and then add all dirs in there as source repository and do one PU copy, or do it one at a time.
  - Need to update CC and CQ update together (the complete package group??). Only CC errors out.
  - The currently (4/14/09) published update instructions by IBM are IM only and basically have every client downloading the fixpack(s) (350 MB/550MB/620MB) (http://www-01.ibm.com/support/docview.wss?&uid=swg21380386)
  - CC IM update goes through "install screen" albd account info with info filled in. The update functionality includes the modify functionality, i.e. you can install additional features or uninstall some.
  - The installed features can be modified, i.e. update includes the modify functionality

- Do NOT run your web browser (Firefox) when running an install silent or otherwise, it will cause an error of some sort in most cases.

- Note: If you do not update your repository with the fixpack, the 7.1 repository still has to be available when running update (http://www-01.ibm.com/support/docview.wss?uid=swg21381944)

- Silent Install
  - cd C:\Program Files\IBM\Installation Manager\eclipse
  - IBMIM.exe -record c:\logs\responsefile_update.xml -skipInstall c:\recordData –log c:\logs\record_log_update.xml
  - Response file has additional line of "offering profile" (and changed settings for "Search Service repositories during installation and updates")
  - IBMIMc.exe --launcher.ini silent-install.ini –input c:\logs\responsefile_update.xml –log c:\logs\silent_install_log_update.xml

17 The New Stuff: modify/update/ROLLBACK/uninstall

- A ifix or fixpack can be installed into the repository and at install time it can be selected or not selected.
- It is possible to undo a ifix or fixpack install via rollback. CC/CC V 7.1.0.01 want to be rolled back together or not at all.
- There can be (is) a system pop-up "overwrite newer system file". 1st user logon after the reboot runs a registry update.

- Note: Atria Location Broker service inadvertently removed during roll back following failed upgrade of ClearCase to 7.1.0.1 on Windows
  http://www-01.ibm.com/support/docview.wss?uid=swg21382751

18 The New Stuff: modify/update/rollback/UNINSTALL

- It works

- It can be done silently

- CC uninstall results in a reboot

- See also "Uninstall ClearCase 7.1 on Linux or Unix"
  http://www-01.ibm.com/support/docview.wss?uid=swg21376016
  and "Uninstall ClearCase 7.1 on Windows"
  http://www-01.ibm.com/support/docview.wss?uid=swg21358566

19 Gotchas

- IM only functions with adequate Eclipse support and an adequate web browser and some *nixes may not be happy with X-redirect and work only in a directly attached console.

- Specifically (from developerWorks ClearCase forum):

  - HP PA-Risc, HP Itanium, zLinux, Linux ppc, Solaris x86 : no GUI install at all, silent install only.
    https://publib.boulder.ibm.com/infocenter/cchelp/v7r1m0/index.jsp?topic=/com.ibm.rational.clearcase.cc_ms_install.doc/topics/c_non_gui_inst.htm

  - Solaris 8: easy workaround: do silent install by repurposing a sol10 response file. For GUI install, you need to have (compile) firefox and make sure it gets picked up. GTK update is also needed. From oellig@avaya.com
    http://www.ibm.com/developerworks/forums/messageview.jspa?messageID=14241177&stqc=true

  - AIX 5.3: per IBM support, the interactive (xwin) install for AIX is only supported by using a console directly connected to the box, not remote through ssh/x-windows. From ultimav

  - AIX 5.3: PU crashes with java exception at startup. From pm2978: Here's the fix from my PMR. The issue was identified as .so's not resolving during PU start up. To correct this append the following line to the 'config.ini' file under the 'configuration' directory of the PU installation.
    osgi.framework.library.extensions=.so

- rgy_backup.bat script missing from ClearCase 7.1 installation
  http://www-01.ibm.com/support/docview.wss?uid=swg21389027

- Rational ClearCase 7.1 installation issues
  http://www-01.ibm.com/support/docview.wss?uid=swg21326078

20 CM Server

- Install can run out of memory on small test boxes

- After restarting the ClearCase host the CM server does not automatically restart:
   http://www-01.ibm.com/support/docview.wss?uid=swg21368423 (chmod needed)

- Cannot enter NIS users and groups on the IBM HTTP Server installation panel: http://www-01.ibm.com/support/docview.wss?uid=swg21327392 (local uid/gid for CM server needed)

21 Licensing Note

"Atria Licensing" or as it is now called "ClearCase Licensing" continues to be available and work. Flexlm licenses support the same basic features and in many companies IT departments already have experience with installation, maintenance and monitoring of flexlm licenses. Also flexlm provides an automatic failover mechanism between license servers.

The following tech not is of interest for any company deploying flexlm license servers
"How to Configure ClearCase 7.1.x on UNIX to support multiple license servers"
http://www-01.ibm.com/support/docview.wss?uid=swg21388562

22 Documentation References

[1] Installation Manager and Packaging Utility:
   http://publib.boulder.ibm.com/infocenter/install/v1r2/index.jsp

[2] ClearCase 7.1: https://publib.boulder.ibm.com/infocenter/cchelp/v7r1m0/index.jsp

[3] ClearQuest 7.1: https://publib.boulder.ibm.com/infocenter/cqhelp/v7r1m0/index.jsp

23 Summary

IBM Installation Manager (IM) is here to stay and old-time ClearCase and ClearQuest administrators have to learn something new. This paper eases the transition from old to new and pulls together the various pieces of IBM documentation into one cohesive picture that is suitable for an enterprise deployment. Along the way, stumbling stones and things to note are mentioned to make a 7.1 deployment as easy as possible.

As with all things IBM Rational, installation into a test environment and verifying that the tools work in your environment before rolling anything into a production environment is highly recommended.

Feedback and questions are welcome.

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