Radia OpenView Usage Manager Using Radia

Radia Usage Manager Guide

Software Version: 2.1

for the Windows operating system

Manufacturing Part Number: T3424-90055

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Preface

About this Guide

Who this Guide is for

This guide is designed for the system administrator interested in using the Radia Usage Manager to assess the IT enterprise. By doing so, he will increase efficiency by prioritizing and effectively implementing IT software and configuration management projects.

The Radia Usage Manager client is installed with or without an existing Radia infrastructure. However, implementation is much faster and more flexible if you leverage your existing Radia infrastructure. In order to implement the Radia Usage Manager in a Radia environment, you will need a basic understanding of a few Radia components, including the Radia System Explorer and the Radia Management Portal, as well as a general understanding of the Radia Client Connect process.

What this Guide is about

The *Radia Usage Manager Guide* describes:

- What the Radia Usage Manager is.
- How to install, configure, and use the Radia Usage Manager.

Conventions

You should be aware of the following conventions used in this book.

Table P.1 ~ Styles

Element	Style	Example or Description
Code	`Monospace text`	`radia_am.exe`
Dialog boxes and windows	**Bold**	The **Radia System Explorer Security Information** dialog box opens.
Directory names	`Monospace text`	On the installation media, go to the `\IntegrationServer` directory.
File names	`Monospace text`	Copy the `put.cfg` file.
Literals	**Bold**	In the Domain Name text box type **SOFTWARE**.
References	*Italic*	See the *Publishing Applications and Content* chapter in this book.
Selections	**Bold**	Click **Next** to continue.
Variables	*Italic*	Within syntax statements or paths, a word in italics represents a formal parameter or argument that you must replace with an actual value. In the following example, you must replace `system_drive` with the name of the system drive, e.g., C: *`system_drive`*`:\Novadigm\ConfigurationServer` And in the following example, you must replace filename with the name of the appropriate file: `-cfg` *`filename`*

Table P.2 ~ Usage

Element	Style	Example
Drives (system, mapped, CD)	Italicized placeholder	*SystemDrive*:\Program Files\Novadigm might refer to C:\Program Files\Novadigm on your computer. *CDDrive*:\client\radia_am.exe might refer to D:\client\radia_am.exe on your computer.
Files (in the Radia Database)	All uppercase	PRIMARY
Domains (in the Radia Database)	All uppercase	PRIMARY.SOFTWARE May also be referred to as the SOFTWARE domain in the PRIMARY file.
Classes (in the Radia Database)	All uppercase	PRIMARY.SOFTWARE.ZSERVICE May also be referred to as the ZSERVICE class in the SOFTWARE domain in the PRIMARY file.

The table below describes terms that may be used interchangeably throughout this book.

Table P.3 ~ Terminology*

Term	May also be called
application	software, service
computer	workstation, server
NOVADIGM domain	PRDMAINT domain **Note**: The NOVADIGM domain existed in the Radia Database versions prior to the 4.0 release. As of the 4.0 release, the NOVADIGM domain is being renamed the PRDMAINT domain.
Radia Client	Radia Application Manager and/or Radia Software Manager
Radia Configuration Server	Manager, Active Component Server
Radia Database	Radia Configuration Server Database

***** Depends on the context. May not always be able to substitute.

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1

Introduction

At the end of this chapter, you will:

- Understand the Radia Usage Manager operational modes.
- Understand the Radia Usage Manager environment requirements.

What is the Radia Usage Manager?

As an IT administrator you can use the Radia Usage Manager to assess patterns of application usage in your environment. This allows you to facilitate adherence to license agreements, re-provision licenses if needed, and monitor user productivity.

The Radia Usage Manager monitors the use of every application on all of your servers, desktops, and laptops. This enables you to:

- Enforce corporate standards by identifying non-standard software and software versions in use within your enterprise.
- Implement license tracking, giving you the ability to purchase and maintain only those licenses that are needed.
- Enable OS migration support by prioritizing software distribution based on actual usage.
- Use reporting to view the actual use of application resources.

The Radia Usage Manager can be used in your existing environment whether or not you are currently using Radia for software distribution. For implementation details regarding non-Radia environments refer to *Appendix* A*: Implementing the Radia Usage Manager in a Non-Radia Environment* starting on page 141.

Figure 1.1 ~ Radia Usage Manager.

Data Collection Types

The Radia Usage Manager collects two types of data: usage and inventory.

- Inventory data consists of information about all applications currently installed on a computer.
- Usage data consists of information about what applications were in use over a specific time period.

  Usage data incorporates another form of data called concurrency usage. Concurrency usage data is a more specific form of usage data.

  Regular usage data is collected on a daily basis anytime an application is used during the course of a day, while concurrency data can be collected for a single application over a period of time as short as fifteen minutes. This ability allows for capacity planning as well as provides specific data to organizations that may be interested in migrating users into a terminal server environment.

System Requirements

- Windows 95, 98, NT 4, XP, 2000, or Server 2003 (XP Server).
- For Windows NT, 2000, or XP, you must have administrator rights to the computer to install the Radia Usage Manager.

Hardware and Software Requirements

- **Radia Usage Manager Client**

  Windows 95, 98, NT, 2000, XP, or Server 2003.
- **Radia Knowledge Base (KB) Manager**

  Windows NT, 2000, XP, or Server 2003.
- **Radia Application Knowledge Base**

  Microsoft SQL Server 2000 with service pack 3

  Oracle 8i, 9i
- **Reporting**

  Radia Usage Manager Tcl Server Pages
- **Radia Infrastructure**

  Radia Application Manager or Radia Software Manager

  Radia Configuration Server

  Radia Integration Server

  Radia Management Portal

  Radia System Explorer

Processing

You can distribute and install the Radia Usage Manager client on your computers using your existing Radia infrastructure. Default Radia-defined installation settings install and configure the Radia Usage Manager client to perform executable inventory scanning, application usage, and usage data collection through predefined Radia Usage Manager packages. The next time a client connects to the Radia Configuration Server, the package is delivered and Radia Usage monitoring automatically begins.

Periodically, the usage data is collected based on user-defined parameters. This data is sent to a predefined collection point for further processing. Collection points may be a network share or a Radia Integration Server destination. This location is monitored by the Radia Knowledge Base Manager, which in turn extracts the usage data from the files collected from each client computer and loads this data into your SQL-enabled database, making the data available for reporting purposes. Reports can be generated using the Radia Management Portal or Active Server Pages.

Radia Usage Manager Environment

The Radia Usage Manager has different infrastructure requirements based on whether or not Radia is used to manage the environment.

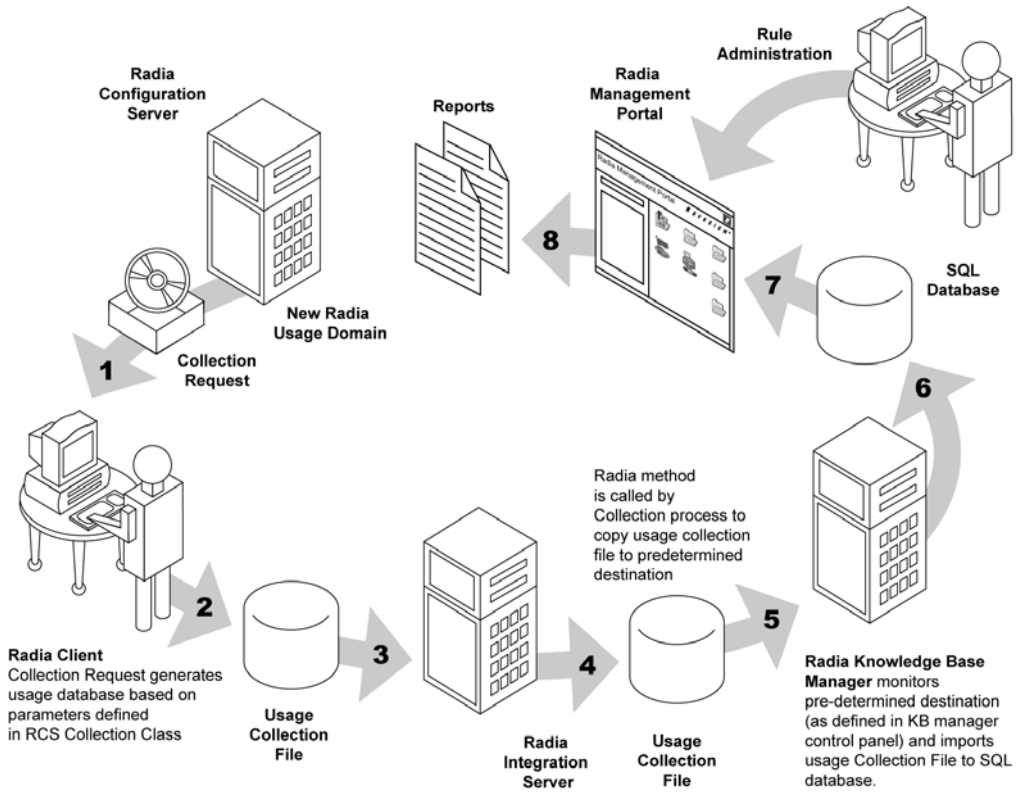


Figure 1.2 ~ Radia Usage Manager Radia environment.

Common Infrastructure Requirements

Common infrastructure requirements are needed for both Radia and non-Radia management of the Radia Usage Manager environment to capture usage data on the client and move the data to a server, and ultimately to an SQL database for reporting purposes.

Common infrastructure includes the following computers with the required software installed:

- **Monitored Client or Server**
  Radia Usage Manager Client and its configuration
- **SQL Database Server**
  Microsoft SQL Server and its enterprise management tools (may be an MSDE version for evaluation)
- **Knowledge Base Manager Server**
  Radia Knowledge Base Manager
- **Radia Usage Manager Administrator**
  Radia Usage Manager Rule Editor

For information regarding non-Radia management of the Radia Usage Manager refer to *Appendix A: Implementing the Radia Usage Manager in a Non-Radia Environment* starting on page 141.

Radia Infrastructure Requirements

In addition to the common infrastructure requirements, additional components must be available for Radia management of the Radia Usage Manager environment. Radia infrastructure requires the following computers and installed software:

- **Radia Database Administrator**
  Radia Administrator Workstation
- **Radia Configuration Server**
  Radia Database USAGE domain
- **Radia Integration Server**
- **Enable HTTP File Copy**

Infrastructure Requirements for Reporting

The infrastructure needed to support reporting differs based on whether Radia has been installed and whether the Radia Management Portal has been licensed. Web-enabled reporting is available through Active Server Pages (ASP) or through the Radia Management Portal's use of Tcl Server Pages (TSP). The reporting software may be installed by anyone who requires the ability to view and generate reports.

- **Active Server Pages reporting**

  Microsoft IIS

  Radia Usage Manager Active Server Pages

- **Radia Management Portal reporting**

  Radia Management Portal

  Radia Usage Manager Tcl Server Pages

Recommended Software Configurations

A single server may have one or more software components installed to minimize the number of computers required. The following are recommendations for consolidating software:

SQL Database Server
To minimize hard-drive thrashing, the SQL database server should have at least two hard drives. Each drive would store:

- The SQL database
- Collection files from each monitored machine

Knowledge Base Manager Server
may be installed on:

- SQL Database Server (recommended)
- Radia Integration Server
- Another server

Radia Usage Manager Administrator
may be installed on the:

- Administrator's workstation (recommended)
- Knowledge Base Manager Server

Client Usage Collection File Destination
The Radia Usage Manager generates files on the monitored machines that contain both the current executable inventory and the usage information. This information is transferred through the network so it can be imported into an SQL database. To eliminate network transfer during SQL database import, it is recommended that collection files be placed on the Knowledge Base Manager Server, which is also the SQL database server machine.

Radia Usage Manager Client Operation Overview

The Radia Usage Manager client supports monitoring of all executable usage, including 16 bit modules.

Once monitoring has started, there are three usage files on the client machine: the **active application monitoring file**, the **history file**, and the **collection file**.

ACTIVE APPLICATION MONITORING FILE

- Contains current application usage information, including (where available):
  - Machine name
  - Machine domain name
  - OS major, minor, build versions
  - User name
  - User domain name
  - Vendor name
  - Product name
  - Product version
  - Application name
  - Application version
  - Original application name (if renamed)
  - Application description
  - Application module file type
  - Path name application was launched from
  - Logical root folder name (i.e., Program Files folder)
  - Remaining path name
  - MD5 hash
  - Link time
  - number of times application was launched
  - number of seconds application was active
  - number of seconds application was in the foreground or "in-focus"

HISTORY FILE

- Data will be accumulated in a history file by machine, user, executable, and day. Note that data is summarized by day in the history file.
- The usage history file will be maintained for a designated period (default is the last 12 months).
- Old data is aged out of the file.
- The client history file will maintain separate entries for all executable inventory and usage data reported to each database.

COLLECTION FILES

- Contains the usage and current executable inventory data that is to be imported into a specific SQL database. Data collection will be done on a per SQL database basis.
- Each SQL database has a filter policy associated with it that contains a set of filtering rules. A collection file is built for each database.
- There can be any number of usage monitor SQL databases that can request the same or different data from any client based on the filtering rules.
- Filter policies will be maintained for each database on the client or as objects in the Radia Configuration Server.
- The client generated collection file must be sent to the correct database import path. The Radia Knowledge Base Manager will perform importing of the collection data file.
- When implemented through Radia, the default collection file name is the &ZOBJID of the UMCOLLCT class.

Collection Processing

When collection is requested for a database, the client will compare the current archive data against the reported data for that database. All file inventory data will be compared. Usage data is only compared for files that pass the inclusion filter. Any differences in inventory or usage are added to the collection file, which then is sent to an SQL database.

Once the collection file has been created, it is sent to the destination defined in the UMDESTPT class, COLLDEST instance attribute, or the USDBCOLL.ini **CollectionPoint** parameter for non-Radia implementations.

To minimize bandwidth requirements, the collection files contain only what has not yet been sent to the specific SQL database requesting the collection. These files also contain data aging and deletion information for removing old data from the SQL database.

The history file contains all usage data, regardless if it has been requested for upload into a SQL database for the machine and all of its users. The history file contains up to one year's data and as new days are added, data older than one year is deleted. This feature allows a SQL database collection process to modify policy collection filters to capture any data that is up to a year old. If a new SQL database is added as a destination point, then it can request any of this data from any machine that the Radia Usage Manager has monitored either presently or in the past.

Collection Point Destinations

A collection point is a directory destination where a collection file is copied to and automatically imported into a SQL database by the Radia Knowledge Base Manager.

Automated Import

Automated import directories are watched by the Radia Knowledge Base Manager automated import service. Each time a new collection file is placed in an autoimport directory, the Radia Knowledge Base Manager will recognize this and then:

- Connect to its pre-configured SQL database through a system-level ODBC connection.
- Import the contents of the collection file into the SQL database.
- Archive the collection file once the import is successful, or copy it to an error directory should the import fail for any reason.
- Perform a rollback of the import if the import is unsuccessful.

Collection Destination Point Unavailable

If a collection request fails to successfully copy the current usage data, then the collection file is placed in the *Usage Manager\Collect* directory with the file name *DatabaseName.USDBase,* where *DatabaseName* is the file name set in the UMDBASE class, DBNAME instance attribute or the USDBCOLL.ini, **DatabaseName** parameter for non-Radia implementations. This file can then be manually collected by copying it from the machine, or it will be recreated with the latest application usage data and then collected when the client receives the next collection request.

Client Processing of Data Collection Request

The monitoring process collects data for every executable that has been run on the machine. This data is saved in the *active monitoring file*. Since administrators need reports on what exists on the machine, but has not been used, an executable inventory is also run to augment the active usage data collected.

Since the inventory capture process may take several minutes to complete, the inventory process can be configured during installation to be collected at a pre-defined time, daily or weekly at, for example, 1:00 AM Sunday. The request for data collection can aggregate this pre-collected inventory data with the current usage monitoring data at the time of the collection request. Also, the inventory collection can be configured to run at the time the collection request is issued to provide a more up-to-date inventory. Since the executable file inventory scan can take several minutes, the request for collection is performed synchronously once the inventory scan has finished.

Collection of monitoring data is initiated by running an executable with the appropriate command line parameters. Each collection request is SQL database-specific and the technique of launching an executable allows one or more collection requests to the same client computer for either the same or differently filtered data destined for different SQL databases.

Note on Focus Time

The usage time for appropriate applications is collected based on parameters that you select. This usage time should not be confused with focus time (the time that an application was in focus, that is, the active window in the forefront on a user's desktop).

Radia Integration Server and the Radia Usage Manager

The Radia Usage Manager requires components under the control of the Radia Integration Server. The Radia Integration Server integrates independent modules, such as the Radia Inventory Manager, the Radia Management Portal, and the Radia Policy Manager, giving them access to all the functions and resources under the control of the Radia Integration Server.

The Radia Integration Server provides Web services that are shared by all loaded modules, resulting in a single entry point for all HTTP (Web-based) requests. This integration provides performance, efficiency, and ease of maintenance in an adaptable and cohesive (server) framework. The Radia Usage Manager leverages Radia Infrastructure Server abilities to perform HTTP-based file copying to move collection files containing usage data from monitored machines to server directories that are then imported into a SQL database.

Summary

- The Radia Usage Manager may be configured to leverage existing Radia infrastructure or capture and report on usage data without it.
- Radia Usage Manager collects two types of data: usage and inventory.
- The Radia Usage Manager benefits IT administration by allowing them to monitor application usage and cut costs.
- Radia implementations of the Radia Usage Manager require the use of Radia products, including the Radia Administrator Workstation, Radia Configuration Server, and the Radia Integration Server.

2

Configuring Your Environment

At the end of this chapter, you will:

- Be familiar with each component with which the Radia Usage Manager interacts.
- Know how to install and configure the various components needed for using the Radia Usage Manager.

Configuring Your Radia Environment

Before you can use the Radia Usage Manager, your Radia environment must be prepared. To configure your Radia components to use the Radia Usage Manager you will need to complete the following tasks:

1. Install and configure Radia Usage Manager software.
   - Radia Management Portal (recommended but not required).
   - Radia Integration Server.
   - Radia Knowledge Base Manager (one per SQL database) and configure ODBC connection.
   - Radia Usage Manager Administrator.
2. Configure your database.
   - Configure your ODBC connection.
3. Configure your Radia Usage Manager client using the Radia System Explorer.
4. Install the Radia Usage Manager client.

Note to pre-version 4.0 Radia Database Users

The Radia Usage Manager requires that the USAGE domain be included in your Radia Database. The USAGE domain is included with version 4.0 of the Radia Database. If you are using an earlier version of the Radia Database, you will need to import the USAGE domain into your database. For more information, refer to *Adding the USAGE Domain* on page 49.

The following sections describe the steps needed to configure your environment. Radia Usage Manager client installation and configuration (steps 3 and 4 above) is covered in *Chapter 3: Radia Usage Manager Client* starting on page 51.

Step 1: Configuring Radia Integration Server and Web Reporting Components

Note to Oracle Users

Oracle requires an Oracle client be installed on the computer where the Radia Knowledge Base Manager is located as well as on the computer where the Radia Integration Server is installed.

You must have an active Radia Integration Server available for processing requests to copy the application usage files (.USDB) from each client computer to a central location for importing into your SQL database. This server provides the collection file destination processing necessary to receive this information and make it available to the Radia KB Manager automated import functions that populate a database.

A single Radia Integration Server may serve as the focal point for gathering usage files that are to be imported from each client into different SQL databases. However, it is recommended that a Radia Integration Server serve only a single SQL database. The Radia KB Manager and Radia Integration Server may run on the same computer.

Your Radia Integration Server must be restarted after configuring the components required by the Radia Usage Manager.

Caution

Before copying and replacing any files, make sure to create a backup.

Update httpd.tkd File

Either copy the `httpd.tkd` file included on your Radia Usage Manager CD-ROM (located in the `\IntegrationServer\` directory) to your Radia Integration Server root directory,or add the following plug-in commands to your existing `httpd.tkd` file:

```
# HTTP Put Server
Module Load Put
# Radia Usage Manager
Module Load Usage
```

When you start the Radia Integration Server, this updated file is used.

Configuring the put.cfg File

Copy the `put.cfg` file from the Radia Usage Manager CD-ROM to the Radia Integration Server `/etc` directory, or update the existing `put.cfg`. This file identifies and correlates an HTTP URL with a destination directory to which to copy the `.USDBASE` files.

When the Radia Integration Server is started, a `put.cfg` file is created. If you already have this file in your `IntegrationServer\etc` directory, it will not be overwritten. This file must be updated if you intend to use multiple SQL databases.

No editing of this file is required unless you want to change the default location of the automated import directory that the Radia Knowledge Base Manager monitors and will use to update the SQL database. The default location is `C:\Usage Manager\KB_Mgr1_Usage`.

Using Multiple SQL Databases

To configure the Radia Integration Server to accept usage database files to be imported into different SQL databases, modify the `put.cfg` script to create a new destination directory for each of the unique SQL databases. Do this by adding the text in *Figure 2.1 ~ Modifying the put.cfg script* on page 31 between the `Begin` and `End` comment lines. Lines beginning with a pound sign (#) are comment lines that are not processed.

```
# ------------------------------------------------------------------------------
# - RIS Usage Manager Destination Directories - BEGIN
# ------------------------------------------------------------------------------
# ------------------------------------------------------------------------------
# -  The following two lines create a directory that a Knowledge Base Manager
# -  service is watching so it can autoimport Usage Manager information into an
# -  SQL database.  This directory creation can be extended to any number of
# -  specific directory/Knowledge Base Manager/SQL database environments.
# -
# -  This request is configured as the Collection Point destination
# -  For example:
# -     CollectionPoint=HTTP://192.168.101.151:3466/KB_Mgr1_Usage/
# -
# ------------------------------------------------------------------------------
file mkdir $Config(ROOT)/etc/usage
file mkdir [set dir "$Config(ROOT)/etc/Usage/KB_Mgr1_Usage"]
Put_AddRoot /KB_Mgr1_Usage $dir
# ------------------------------------------------------------------------------
# -
# -  The 'file mkdir' line defines the physical directory that is the HTTP
# -  request file destination.
# -
# -  The 'Put_AddRoot' line defines the last node in the HTTP request.
# -  For example:
# -     HTTP://192.168.101.151:3466/KB_Mgr1_Usage/
# -
# -  would result in the Usage Collection File being copied to the directory
# -     <<RIS Path>>\etc\Usage\KB_Mgr1_Usage
# ------------------------------------------------------------------------------
# -  Repeat the above two lines to create additional CollectionPoint/KB Manager
# -  auto import directories.
# ------------------------------------------------------------------------------
#file mkdir $Config(ROOT)/etc/usage
#file mkdir [set dir "$Config(ROOT)/etc/Usage/KB_Mgr2_Usage"]
#Put_AddRoot /KB_Mgr2_Usage $dir
# ------------------------------------------------------------------------------
# - RIS Usage Manager Destination Directories - END                 -
# ------------------------------------------------------------------------------
```

Figure 2.1 ~ Modifying the put.cfg script.

In the sample script in *Figure 2.1 ~ Modifying the put.cfg script* above, an enterprise and a local level SQL database are used by the organization on a single Radia Integration Server. There is a Radia KB Manager automated import service running on two separate computers. One of these monitors activity in the `KB_Mgr1_Usage` folder and the other monitors activity in the `KB_Mgr2_Usage` folder.

The `file mkdir[set dir "`*`physical directory name`*`"]` command sets the physical directory that the usage files are going to be copied into from the `HTTP_PUT` request.

The `Put_AddRoot /`*`logical_name`* `$dir` command associates the http logical collection point with the name of the physical file into which the file is copied. The collection point is defined in the Radia Configuration Server USAGE domain in the UMCOLLCT object as:

`HTTP://`*`RIS_IP_destination`*`:`*`port_number`*`/`*`Logical_name`*

For example, by setting a collection point destination of:

```
HTTP://192.168.0.150:3466/KB_Mgr1_Usage
```

The client usage files will be sent to the Radia Integration Server and copied into the directory

RIS Path\Usage\KB_Mgr1_Usage*UsageFile*.USDBase

The Radia KB Manager would then be configured to watch for activity on the directory <<*RIS Path*>>\Usage\KB_Mgr1_Usage and perform automated import processing of the data into its associated SQL database once the file has been copied.

When finished copying and editing the files, start the Radia Integration Server. The directory `C:\Usage Manager\KB_Mgr1_Usage` is created.

Configuring the usage.cfg File

Copy the appropriate usage configuration file from your Radia Usage Manager CD-ROM (located `\IntegrationServer\etc`) to your Radia Integration Server `etc` directory (by default `C:\Novadigm\IntegrationServer\etc`). Depending on which database type you are using, copy the appropriate file.

- For Oracle, copy `usage_Oracle.cfg`
- For SQL, copy `usage_SQL_Server.cfg`

Once copied, rename this file to `usage.cfg`.

Then, using a text editor, open the `usage.cfg` file and enter your ODBC name, user ID, and password. You may also change the DSN value if required. *Figure 2.2 ~ Configured usage.cfg file* below, is an example of a configured `usage.cfg` file that uses `dbo` as the user name and a blank password.

Note

The user ID used in the `usage.cfg` file must have sufficient access rights to select and execute stored procedures and functions.

```
usage::init {
    DATABASE            "SQLSERVER"
    DSN                 "RadiaUsageManager"
    DSN_USER            "dbo"
    DSN_PASSWD          ""

    DL_DATEFMT          {%Y-%m-%d %T}
}
```

Figure 2.2 ~ Configured usage.cfg file.

Enable Web Reporting

To enable Web reporting, copy the Tcl server pages `\usage` directory located in the `\Radia Server Pages – Web Reports` directory of your Radia Usage Manager media, to the root of your `\IntegrationServer` directory.

Step 2: Installing the Radia Usage Manager Administrator

The Radia Usage Manager Administrator allows you to create rules that will enable you to select which data will be used to create your usage reports. Install this component on an administrator's workstation (preferred), or on the computer that houses the Radia Knowledge Base Manager.

To install the Radia Usage Manager Administrator

1. From your Radia Usage Manager media, navigate to the Radia Usage Manager Administrator directory.
2. Double-click **Package.msi** to start the installation.

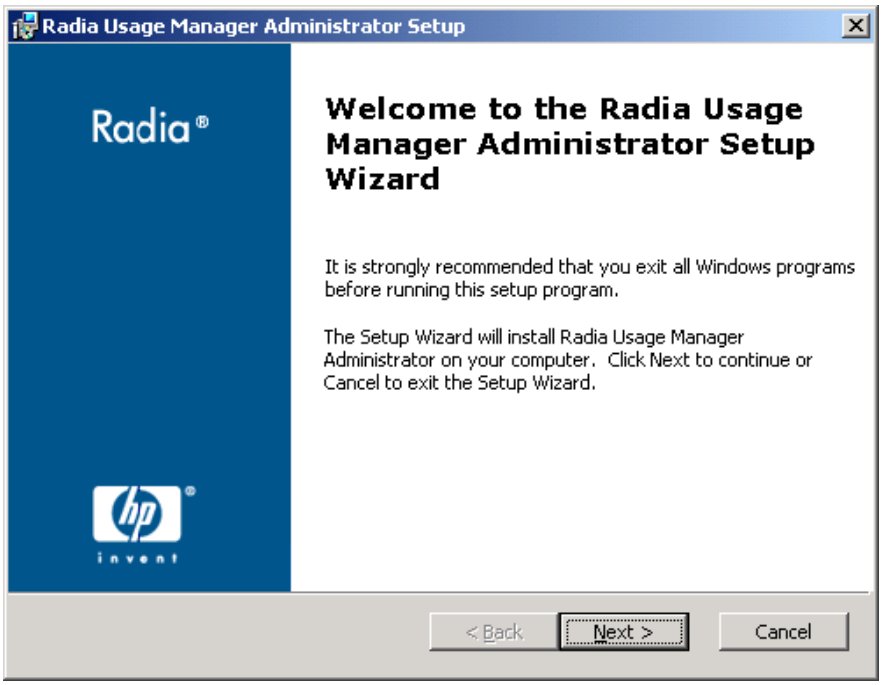


Figure 2.3 ~ Radia Usage Manager Administrator Welcome dialog box.

3. Click **Next**.

   The end-user license agreement dialog box opens.

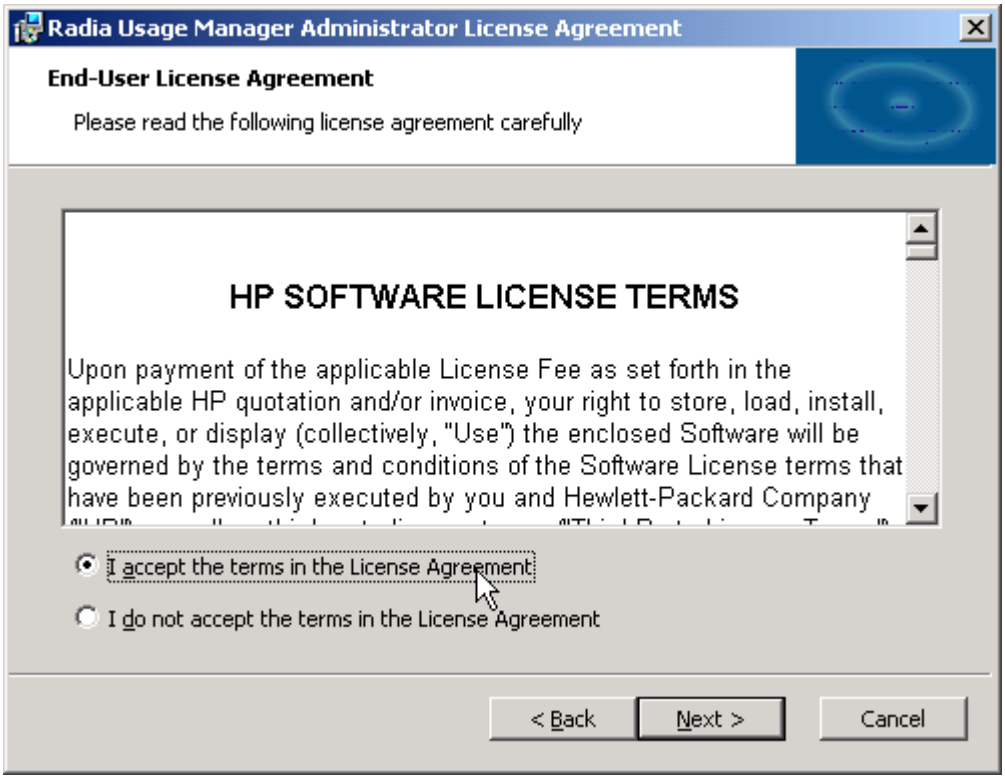


Figure 2.4 ~ End-user license agreement.

4. Read and accept the HP Software License terms. Click **Next**
The installation location dialog box opens.

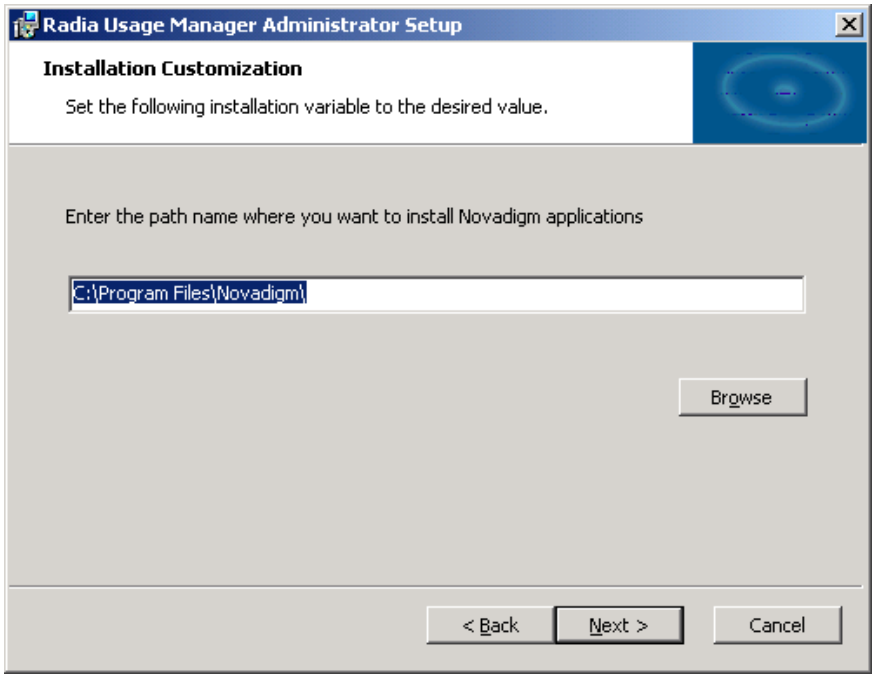


Figure 2.5 ~ Radia Usage Manager Administrator location.

5. Type the location where you want to install the Radia Usage Manager Administrator, or click **Browse** to navigate to a location.
6. Click **Next**.

   The serial number dialog box opens.

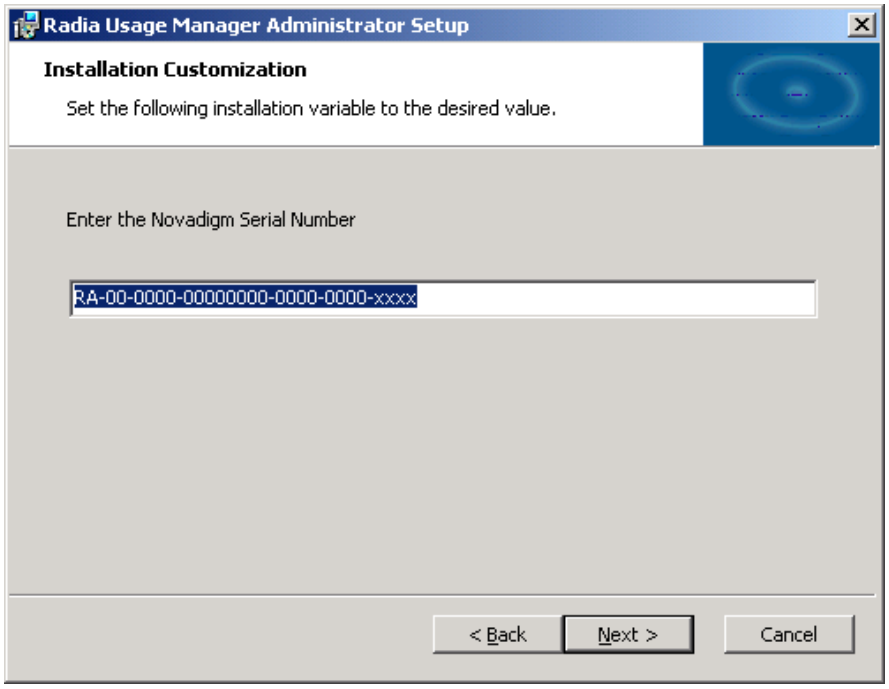


Figure 2.6 ~ Radia Usage Manager Administrator Serial Number dialog box.

7. Enter your serial number and click **Next**.
The Ready to Install dialog box opens.

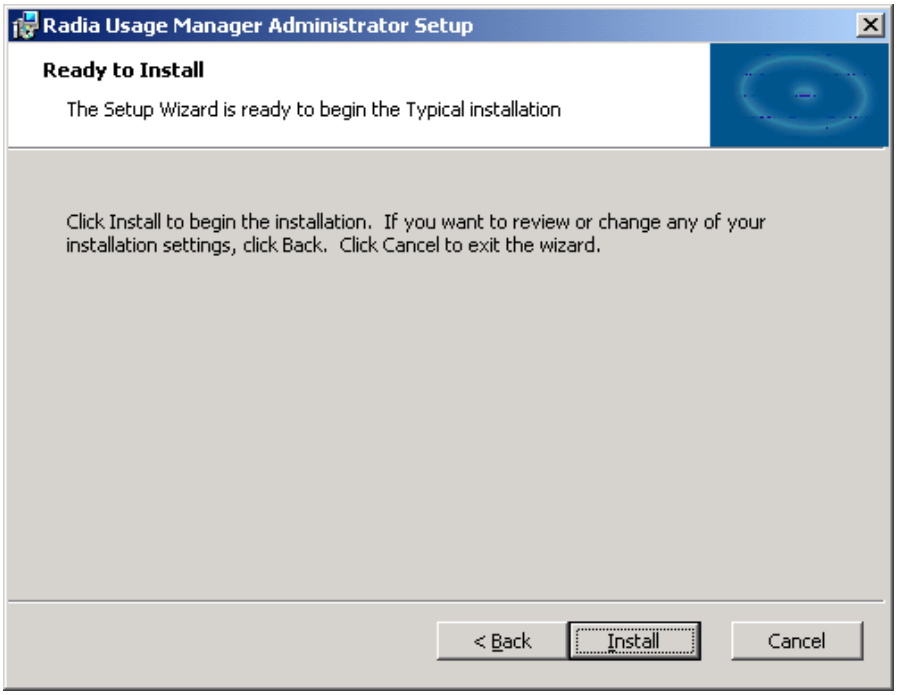


Figure 2.7 ~ Ready to install.

8. Click **Install**.

9. When the installation is finished, click **Finish**.

The Radia Usage Manager Administrator is installed and a Rule Editor shortcut is added to your Windows Start menu. Once an ODBC connection to a database is established, use the start menu shortcut or the `RADPIMGR.exe` file (located in the \Program Files\Novadigm\Usage Manager\bin\ directory by default) to access the Radia Usage Manager Administrator.

Step 3: Configuring the Radia Usage Manager Database Schema

The Radia Usage Manager Knowledge Base is a database that contains the application usage data that is needed to effectively manage the enterprise including information about the machines, users, files, and file usage. It is designed such that application packaging and other state file data generated by the Radia Extensions for Windows Installer and Radia Inventory Manager can be leveraged during data analysis and reporting.

Refer to the instructions below for information about how to configure your database schema using either a SQL Server or an Oracle database.

Defining a Radia Application Knowledge Base Database for Microsoft SQL Server

New Radia Usage Manager databases are created using the SQL data definition language files referenced below.

Use the following steps to create the Radia Usage Manager database for a Microsoft SQL Server database.

First, create the Radia Usage Manager database.

To create the Radia Usage Manager Database for SQL Server

1. Open the SQL Server Enterprise Manager.
2. Right-click the **Database** folder for the appropriate server and select **New Database**. Complete the entries as follows:
   - **General Tab**
     - **Name**
       `RadiaRUM` (or a name of your choice excluding blanks and underscores)
   - **Data Files Tab**
     - **File Name**
       `RadiaRUM_Data` (or name of your choice excluding spaces). Set the initial size to 1000 MB.
     - Select **Automatically grow file** by 20%

     Note

     For improved performance, we recommend the Radia Usage Manager database be created on a drive other than the drive used to create state files.

   - **Transaction Log Tab**

- **File Name**
  `RadiaRUM_Log` (or a name of your choice excluding blanks). Set the log size to 250 MB.

3. Click **OK** to create the database and log files. The Radia Usage Manager database is now added to the `Databases` folder of your server, within the Server Manager.
4. When you are finished creating the database, create the database table schema.

To create the table schema for SQL Server

1. Within the SQL Server Enterprise Manager, in the **Tools** menu, select **SQL Server Query Analyzer.**
2. Make sure the drop-down box displays the database you just created.
3. From within the Query Analyzer, open your Radia Usage Manager media and navigate to `\SQL server\SQL Server 2000\`.
4. Execute each SQL script in the directory in order (the scripts are named accordingly) beginning with Step 2:
   - Step2_Define_UsageManager_Tables.sql
   - Step3_Define_Common_Tables.sql
   - Step4_Define_Views.sql
   - Step5_Define_Stored_Procedures.sql
   - Step6a_Insert_Common_Functions.sql
   - Step7_Insert_Common_DefaultData.sql
5. Use **Query Execute** or press **F5** to run each script.
   At the end of the query execution you will see a series of messages possibly displaying `sysdepends` dependency and several row insertions. This indicates a successful installation of the database definitions.
6. Close the SQL Query Analyzer.

Defining a Radia Application Knowledge Base Database for Oracle

Configuring your database schema for Oracle requires the execution of several SQL script files that are provided with your Radia Usage Manager media in the **Oracle** directory. Copy these files to a location accessible by your Oracle administrator. Make sure to use the files located in the appropriate Oracle version directory. The scripts will, by default, install the database into the Radia user's schema.

To configure your Radia Application Knowledge Base database schema for Oracle

1. Define a system environment variable `Oracle_Home` on your administrator computer (for Oracle 9i, create `ORACLE_HOME=C:\Ora92`, for Oracle 8i, create `ORACLE_HOME=C:\Oracle`). This allows the scripts you will run in the next few steps to locate your Oracle directory.

2. Use the Oracle DBA Studio application (for Oracle version 8i and below) or the SQL Plus Worksheet application (for Oracle version 9i and above) and login as a database administrator.
3. Execute the SQL scripts that are on your Radia Usage Manager media in order, as determined by their filenames, making sure to include the correct path to the script locations. Review the comments within each script (step 1 through step 5).

> **Note**
>
> Make sure to select the correct group of SQL files depending on the version of Oracle you are using.

- **For Oracle 8i**

  Include the rollback segment names created under step2 in the init.ora file

  - Step1_Define_TableSpaces.sql
  - Step2_Define_RollbackSegments.sql
  - Step3_Define_Common_Roles.sql
  - Step4_Define_Common_Tables.sql
  - Step5_Define_UsageManager_Tables.sql
  - Step6_Insert_Common_DefaultData.sql

- **For Oracle 9i**

  Include the rollback segment names created under step2 in the init.ora file

  - Step1_Define_TableSpaces.sql
  - Step2_Define_Common_Roles.sql
  - Step3_Define_Common_Tables.sql
  - Step4_Define_UsageManager_Tables.sql
  - Step5_Insert_Common_DefaultData.sql

  For example, if your SQL scripts are located in the directory `\RadiaUsageManager\Oracle\Schema`, you would execute the first script by typing

  ```
  SQL> @C:\RadiaUsageManager\Oracle\Schema\Step1_Define_TableSpaces.sql
  ```

  followed by ENTER.

4. Make sure each script executes properly.

> **Note**
>
> The .sql scripts preceded with Step99 and Step99a are used only for removing the Radia Usage Manager Database. They are not required here.

When you're finished executing the SQL scripts, you need to apply the supplied service packs located within the Oracle version directories within the **ServicePacks** folder. There are two types of service packs supplied, **required** and **optional**. Apply the required service packs first, in the proper order, then, if desired, apply the optional service packs.

To apply the service packs

1. Use the Oracle DBA Studio application (for Oracle version 8i and below) or the SQL Plus Worksheet application (for Oracle version 9i and above) and login as a database administrator.
2. Execute the service pack SQL scripts located within the **ServicePacks** folder within the proper Oracle version directory of your Radia Usage Manager media, making sure to include the correct path to the script locations. Run the scripts in order as determined by their filenames.

Note

After applying the SERVICE_PACK_XXX.SQL files, the Oracle server does not recompile all of the parent views when a child view is updated. This leaves a number of views invalid after applying the updates. To make sure all views are valid, select all of the views in the SQL Enterprise Manager, right-click and select **Recompile**. This will re-validate all of the views.

Step 4: The Radia Knowledge Base Manager

Note to Oracle Users

Oracle requires that an Oracle client be installed on the computer where the Radia KB Manager is located, as well as the computer where the Radia Integration Server is installed.

The **Radia Knowledge Base Manager** provides services to manage the Radia Usage Manager Knowledge Base. It also services requests for a Radia Application Knowledge Base available through the Radia Extensions for Windows Installer product. The Radia Knowledge Base Manager installs as a Windows service on a Windows 2000 or above workstation or server.

The Radia Knowledge Base Manager performs automated import processing of Radia state files into the Radia Application Knowledge Base. Automated importing may be defined for the following types of directory structures:

- Radia Usage Manager collection files extension (`USDBase`).
- Simple state file automated import directories containing Radia state files (`.ISState` extensions). These are typically created by the Radia Packager for Windows Installer or the Radia Patch Manager-.
- Radia Configuration Server service export directories that have required subdirectory structures that are built by the Radia Extensions for Windows Installer features which enable

extraction and conversion of Radia packages contained in Radia Services to `.ISState` file formats.

The Radia Knowledge Base Manager automated import server runs independently of the Radia Configuration Server to import files found in the automated import directories.

Installing and Configuring the Radia Knowledge Base Manager

For installation instructions, refer to the *Radia Knowledge Base Manager Guide*, available on the HP OpenView support web site.

Once an ODBC connection to a database is established, configure the Radia Knowledge Base manager using the control panel application **Radia KB Manager Configuration**. When finished with the configuration, start the Radia Knowledge Base Manager service.

Configuring the Radia Knowledge Base Manager

Configuration for the Radia KB Manager is controlled through the **Radia KB Manager Configuration** control panel.

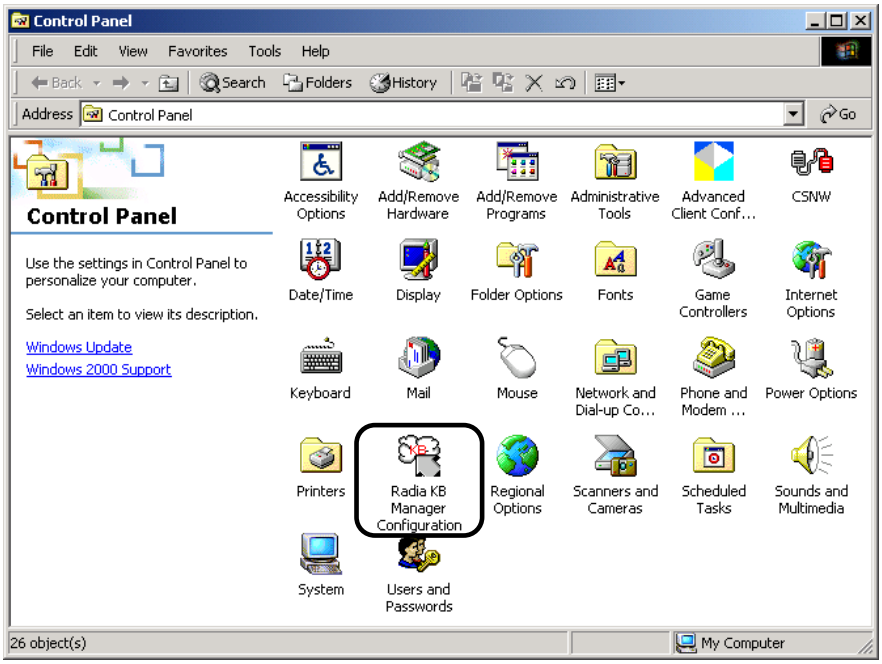


Figure 2.8 ~ Radia Knowledge Base Manager Control Panel icon.

To access the Radia KB Manager Control Panel

1. Click **Start**, **Settings**, **Control Panel**.
2. Double-click the **Radia KB Manager Configuration** icon.
   The **Radia Knowledge Base Manager Configuration** window opens.

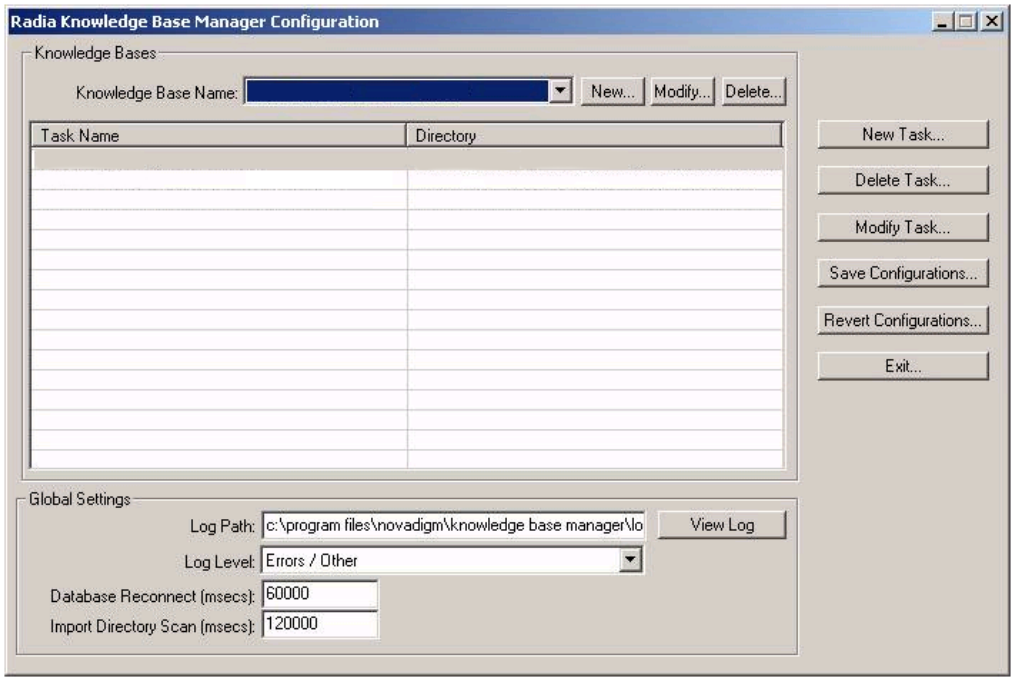


Figure 2.9 ~ Radia Knowledge Base Manager Configuration window.

To configure the Radia KB Manager automated import directories

1. Click **New** to add a Radia Knowledge Base Manager.
   The **New Knowledge Base – Configuration** dialog box opens.

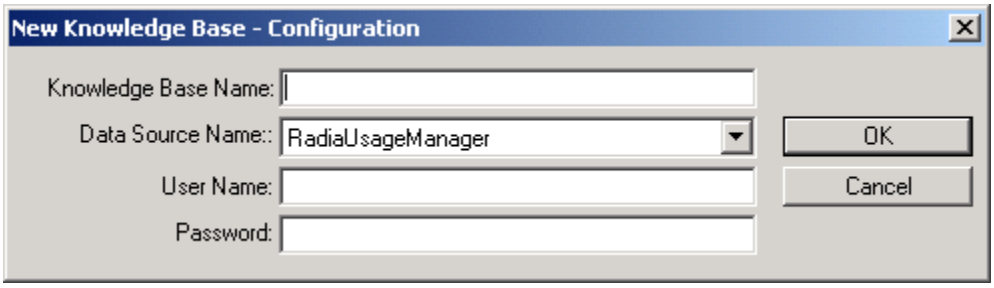


Figure 2.10 ~ New Knowledge Base – Configuration window.

2. Enter the following information:

Knowledge Base Name: Enter the Knowledge Base name.

Data Source Name: Enter the Data Source Name (DSN).

User Name: Type a user ID that has owner authority for the database.

Password: Type a valid password for the user ID.

The Radia Knowledge Base administrator must supply a logon ID and password for the person who has rights to access the SQL database. This ID must have full access rights to the database objects including table and stored procedures. Enter the ID with these rights and its password.

3. Click **OK**.

When you are finished adding a Knowledge Base, create a task by clicking **New Task**.

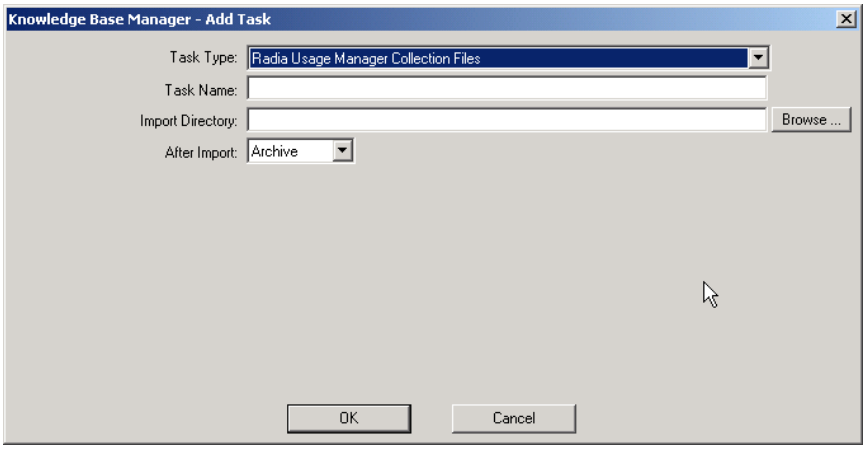


Figure 2.11 ~ Knowledge Base Manager - Add task dialog box.

4. From the **Task Type** drop-down list, select one of the following:
   - **Radia Extensions for Windows Installer State Files**
     See the *Radia Extensions for Windows Installer Guide* for more information regarding this task type.
   - **Radia Configuration Server Service-to-Package Extracts**
     See the *Radia Extensions for Windows Installer Guide* for more information regarding this task type.
   - **Radia Usage Manager Collection Files**
     Create a task of this type to define your automated import directory for usage files that are collected.
   - **Radia Configuration Server Product-to-Application Rule Extracts**
     For future use.
   - **Radia Usage Manager Purge Criteria**
     Use this task to purge usage data from your database. You must define whether the purging will take place daily, monthly, or yearly.
     Recommended settings:
     Daily: 31-62 days
     Monthly: -1
     Yearly: -1
   - **Radia Patch Import**
     Refer to the *Radia Patch Manager Guide* for more information regarding this task type.
5. The type of task you select will determine what information is required in the following text boxes. Depending on the task you select, some of these text boxes may not appear.

Task Name:	Type a name for the task, for example **Collection Files**.
Import Directory:	Enter the path for the directory from which files will be imported. Use **Browse** to navigate to it.
After Import:	Select the action taken after import, Archive, or Delete. This option allows you to remove the files from the import directory immediately after they are imported.

6. Click **OK** and you are returned to the Radia Knowledge Base Manager Configuration window. It now displays the information you just entered.

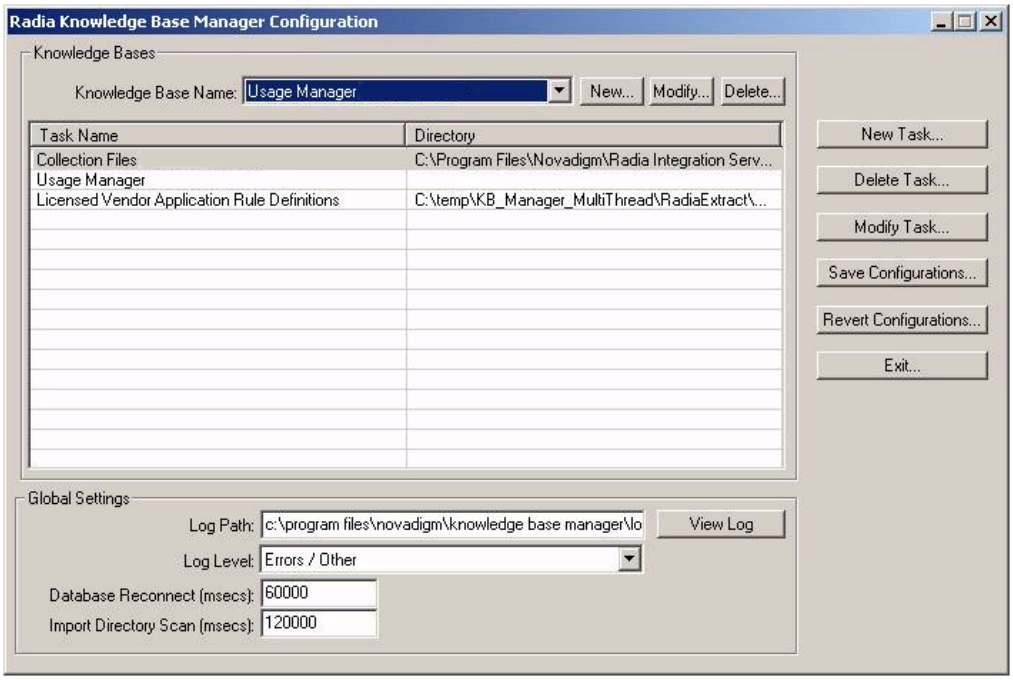


Figure 2.12 ~ New task added.

7. To complete the Radia Knowledge Base Manager configuration, edit the following text boxes located at the bottom of the **Radia Knowledge Base Manager Configuration** window:

- **Log Path** (default is `C:\`)
  Default log path for AutoImport processing status information. All exceptions are logged as well as successful imports and `\Notify` file deletions after successful imports of Radia Service state files.

> **Note**
>
> The log path must exist before starting the Radia Knowledge Base Manager service.

- **Log Level**
  Select the level of logging from the drop-down list. Select **Errors Only, Errors/Other** (default) for specific information only, **Verbose** for all errors and messages**,** or **Debug** for debugging related messages only.

- **Database Reconnect (msecs)** (default is 5000)
  Number of milliseconds to wait between reconnect attempts to the SQL database server. Recommended: 60000.
- **Import Directory Scan (msecs)** (default is 5000)
  Number of milliseconds to wait between each check of the import directory for new files. Recommended: 60000.

Starting and Stopping the Radia Knowledge Base Manager

The Radia Knowledge Base Manager is controlled as a Windows service. The service name is **RadKBMgr** and it may be stopped and started through the **Administrative Tools\Services** options of the Control Panel.

SQL Server Requirements for the Radia Knowledge Base Manager

To process Radia Knowledge Base requests, the Radia Knowledge Base Manager requires a SQL Server or Oracle logon ID. A user ID of any name can be configured (the default is **sa** for SQL Server or **Radia** for Oracle). This ID is used to define the DB_OWNER for the Knowledge Base database with full permissions for administering the database. This ID is referred to as the AppLogin user ID.

Create an ODBC Data Source Name for the Radia Knowledge Base Manager

The Radia KB Manager requires an ODBC DSN to connect to the Microsoft SQL Server or Oracle database hosting the Radia Knowledge Base. The ODBC definition must be configured on the same workstation or server that the Radia KB Manager is executing. If you need help creating an ODBC DSN connection, see your system or database administrator or the HP OpenView support web site.

- Create an ODBC DSN: **RadiaUsageManager**

Adding the USAGE Domain

Pre-version 4.0 Radia Database users will need to import the USAGE domain into their Radia Database. To do this, import the latest class, instance, and resource files using the Radia tool ZEDMAMS. Instructions for using this tool can be found on the HP OpenView support web site.

The files for importing are located in the `\RCS_Database_Classes\USAGE_DOMAIN\` directory on your Radia Usage Manager media and are as follows:

`Usage.xpc`	Usage domain class
`Usage.xpi`	Usage domain instances
`Usage.xpr`	Usage domain resources

Summary

- Install and configure the required components to begin using the Radia Usage Manager.
- You must have an active Radia Integration Server available for processing requests to copy the application usage files.
- The Radia Usage Manager Administrator allows you to create rules that will enable you to select which data will be used to create your usage reports.
- When defining your Knowledge Base Database, make sure to select the proper scripts depending on the version of Oracle or SQL Server you are using.
- Pre-version 4.0 Radia users may need to install the USAGE domain manually.

3

Radia Usage Manager Client

At the end of this chapter, you will:

- Understand the different Radia Usage Manager service components.
- Be able to create a Radia Usage Manager service.
- Distribute a Radia Usage Manager service.
- Understand each filter-specific class.
- Know how to create your own filters or use the existing filter parameters.

The USAGE Domain Defined

The Radia Usage Manager utilizes the USAGE domain within your Radia Database, enabling management of the Radia Usage Manager in the enterprise. The USAGE domain is comprised of classes that you use to create Radia Usage Manager services to distribute to your client computers. These services install the Radia Usage Manager client, which collects usage data based on your specifications. The next few sections describe the USAGE domain classes.

Use the Radia System Explorer to configure each class in the USAGE domain.

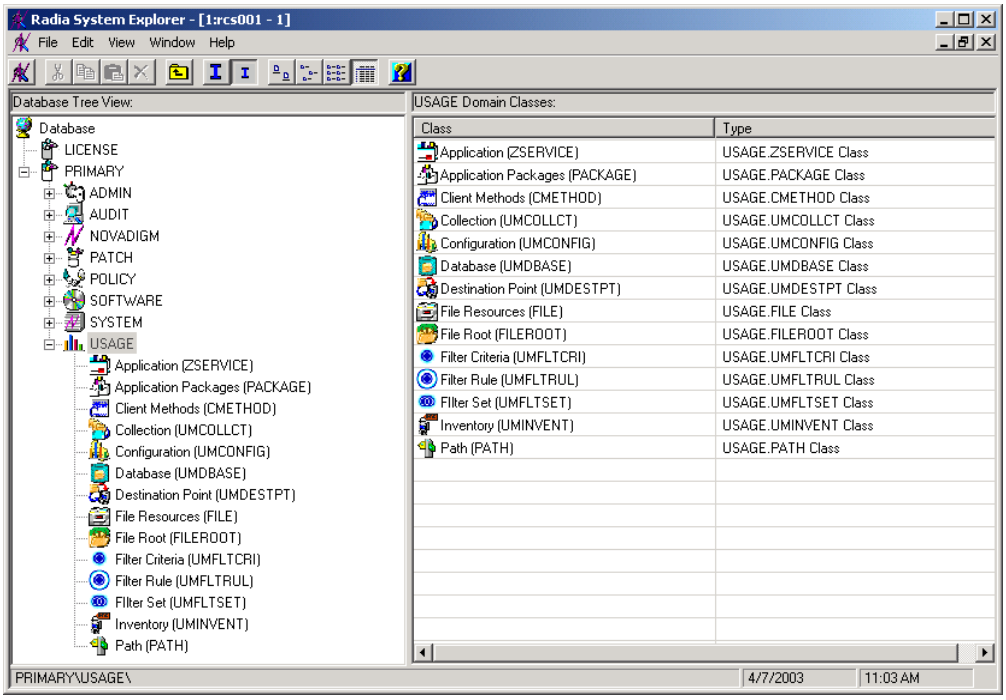


Figure 3.1 ~ The USAGE domain displayed in the Radia System Explorer.

Table 3.1 ~ USAGE Domain Classes

Class	Description
Application (ZSERVICE)	Contains the Radia Usage Manager services.
Application Packages (PACKAGE)	Contains the Radia Usage Manager packages.
Client Methods (CMETHOD)	Client methods used to process each instance.

Table 3.1 ~ USAGE Domain Classes

Class	Description
Collection (UMCOLLCT)	Controls the Radia Usage Manager collection options that represent the unique collection criteria with which the usage collection files on each computer are associated. A single computer may have multiple collections targeted, each associated with a unique data store. The collection file contents are sent to different collection points and ultimately to different SQL databases.
Configuration (UMCONFIG)	Controls the Radia Usage Manager installation options.
Database (UMDBASE)	Unique usage database name, which correlates to a backend SQL database.
Destination Point (UMDESTPT)	Location where usage data is stored.
File Resources (FILE)	File instances included within a package.
File Root (FILEROOT)	Defines the base location of a file without any extended path information. Can be a drive, like C:\, or a well known folder location, like ProgramFilesFolder. File Roots are only used for filtering the collection file content collected from the client in the Radia System Explorer.
Filter Criteria (UMFLTCRI)	Defines usage filtering criteria.
Filter Rule (UMFLTRUL)	Connects to usage filtering criteria. The filter type determines whether it is an inclusion or exclusion Filter Rule, and its priority determines its importance when compared with other Filter Rules defined in a Filter Set. Refer to the section *Filters* on page 61 for more information.
Filter Set (UMFLTSET)	Connects to one or more Filter Rules. Filter Sets are in turn connected to collections in the UMCOLLCT class. Each UMCOLLCT class may then have specific filtering associated with its data collection.
Inventory (UMINVENT)	Defines default configuration criteria for the Radia Usage Manager inventory scan.
Path (PATH)	A unique path to one or more components.

Significance of Collection Instances

Collection class instances, and their related filter class instances, establish the content that is uploaded to a specific SQL database from the device which the usage data is collected. Collection class instances define the database-specific client collection properties as well as the destination location once the usage and inventory data has been aggregated on the client machine and is ready to be passed through the network for import into a specific SQL database.

Configuring the Radia Usage Manager Client

The Radia Usage Manager client is installed through a Radia service. Connect this service to the appropriate client machines and then during the next client connect the Radia Usage Manager client is distributed.

The Application (ZSERVICE) class in the USAGE domain contains a service out of the box that requires minimal configuration. Use this service to define inventory and collection parameters and for distribution to your client computers.

To configure the Radia Usage Manager client for distribution

1. Start the Radia System Explorer and double-click **PRIMARY**, then **USAGE**.

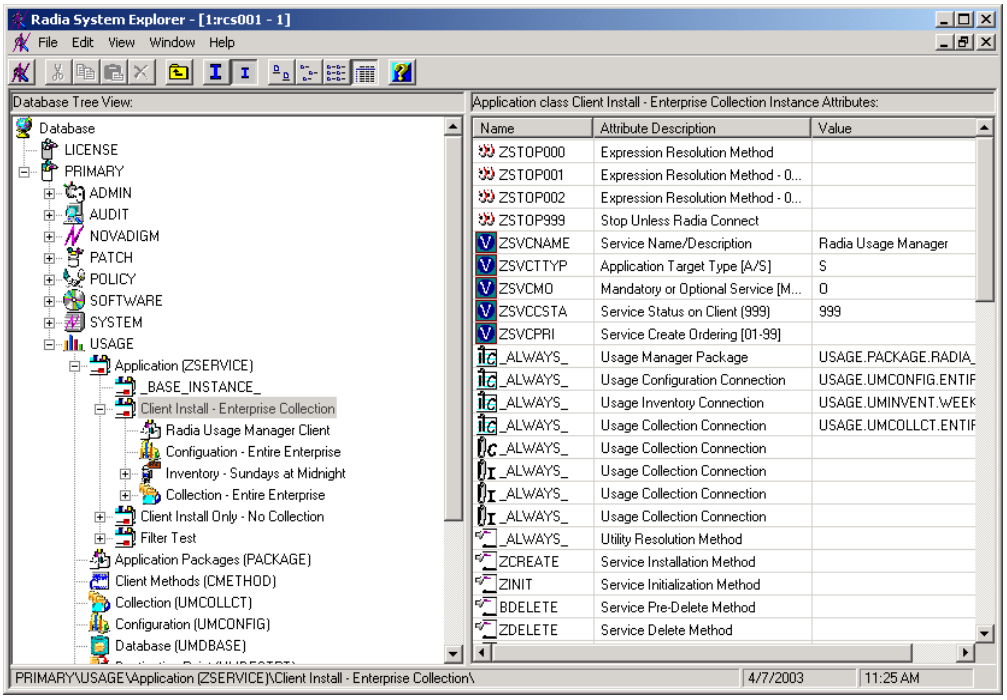


Figure 3.2 ~ Radia Usage Manager client service instance.

2. Double-click the **Application (ZSERVICE)** class.

   This class contains several services you can use to distribute the Radia Usage Manager client as well as apply any collection filters. The service **Client Install – Enterprise Collection** distributes the Radia Usage Manager client to your environment and contains a default collection instance.

The service contains four configurable connections:

Radia Usage Manager Client	Application (PACKAGE) instance
Configuration – Entire Enterprise	Configuration (UMCONFIG) instance
Inventory – Sundays at Midnight	Inventory (UMINVENT) instance
Collection – Entire Enterprise	Collection (UMCOLLCT) instance

3. Double-click **Configuration – Entire Enterprise**.
   The **Editing Instance** dialog box opens.

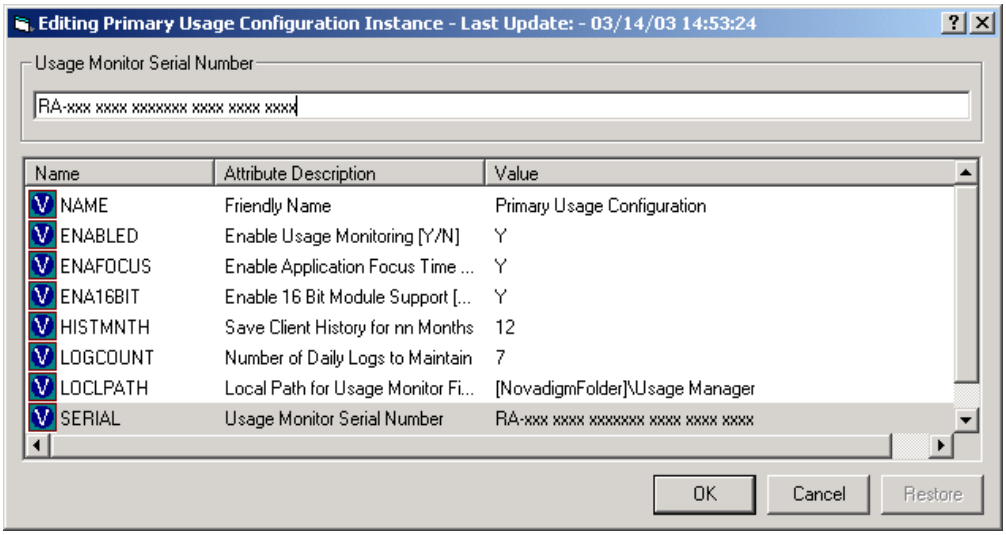


Figure 3.3 ~ SERIAL instance value.

4. Double-click the **SERIAL** instance and type your Radia Usage Manager serial number.
5. Click **OK**.
6. Double-click **Collection – Entire Enterprise** .
   The **Editing Instance** dialog box opens.

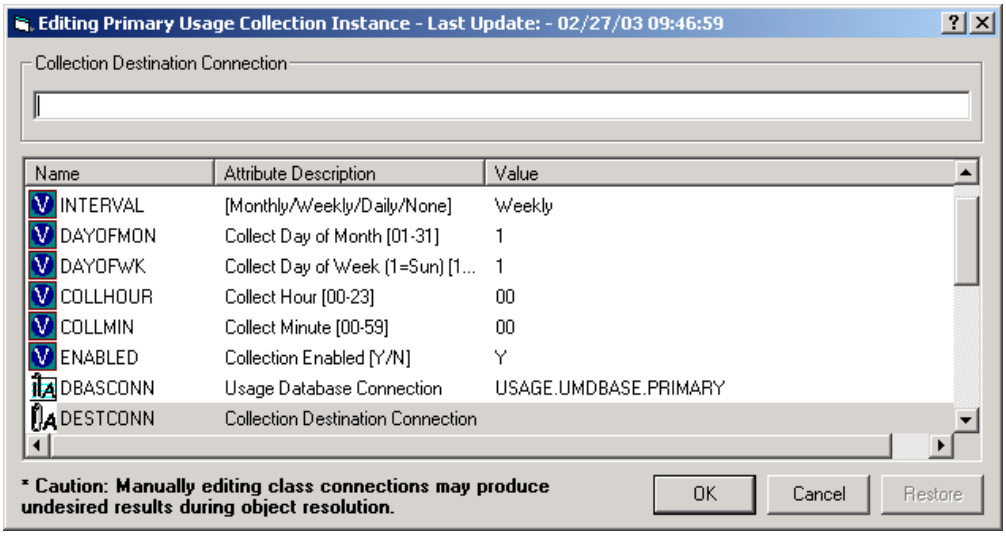


Figure 3.4 ~ DESTCONN instance value.

7. Double-click the **DESTCONN** instance and enter the location of your collection point. This is the location to which the inventory files will be sent after each collection period.

The Radia KB Manager monitors this collection point and moves any files it finds into your SQL database for viewing. After the files are moved out of the collection point, they are saved in a subdirectory called `Archive`.

The default collection parameters are described in Table 3.2 below.

Table 3.2 ~ Default Collection Parameters (UMCOLLCT)

Instance	Default Value	Description
NAME	Primary Collection Parameters	Friendly Name.
INTERVAL	Weekly	When the collection will take place. [Monthly/Weekly/Daily/None]
DAYOFMON	1	Day of the month collection will take place. [01-31]
DAYOFWK	1	Day of the week collection will take place [1=Sun] [0-7]
COLLHOUR	00	The hour of the collection. [00-23]
COLLMIN	00	The minute of the collection. [00-59]
ENABLED	Y	Whether or not collection is enabled.
DBASCONN	USAGE.UMDBASE.PRIMARY	Usage database connection.

Table 3.2 ~ Default Collection Parameters (UMCOLLCT)		
Instance	**Default Value**	**Description**
DESTCONN		This is a connection to a predefined collection point. This is the location where files will be stored until the Radia Knowledge Base Manager moves them into your SQL database.
CMETHOD	CMETHOD.UMCOLLCT	The collection method.
FLTSET01		Filter Set connection.
FLTSET02		Filter Set connection.

8. Click **OK** to close the dialog box.
9. Connect any Filter Sets you would like to include with your service by dragging the Filter Set instance onto the service name. For more information on creating and applying filters, see *Filters* on page 61.

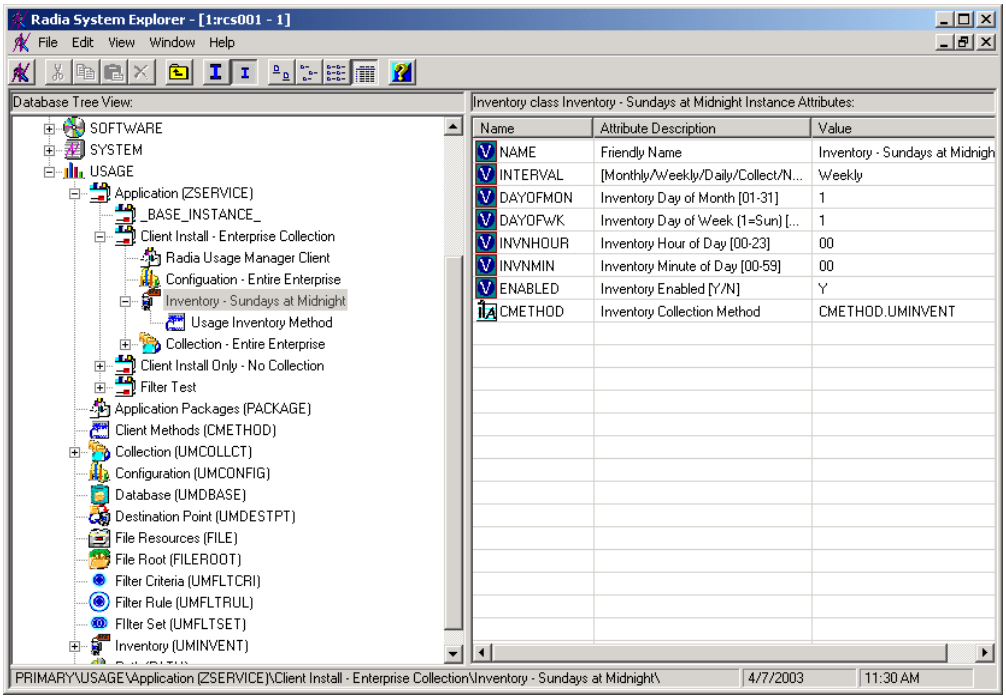


Figure 3.5 ~ Default Inventory parameters.

10. If you want to adjust the inventory time, double-click **Inventory – Sundays at Midnight**. *Table 3.3 ~ Default Inventory Parameters (UMINVENT)* below describes each inventory parameter.

Table 3.3 ~ Default Inventory Parameters (UMINVENT)

Instance	Default Value	Description
NAME	Default Inventory Parameters	Friendly Name
INTERVAL	Weekly	When each inventory will take place. [Monthly/ Weekly/ Daily/Collect/None]
DAYOFMON	1	The day of the month to begin the inventory. [0-31]
DAYOFWK	1	Day of the week each inventory will take place. [1-7] (1=Sunday).
INVNHOUR	00	The hour of the day at which the inventory will take place. [00-23]
INVNMIN	00	The minute at which the inventory will take place. [00-59]
ENABLED	Y	Whether or not inventory is enabled.
FSIGMODE	S	Three levels of scanning depth for executables inventoried on each client device are available. The type of scan defined here can determine the amount of time a collection may take. **S** File Sizes Only. Faster, less comprehensive (default) **H** Entire Module Header. Slower, more comprehensive **M** Complete MD5 Signature. Slowest, most comprehensive
CMETHOD	CMETHOD.UMINVENT	The inventory method.

These parameters can be adjusted to adhere to your specific needs. The default inventory will begin on the first of the month and repeat once a week every Sunday at midnight.

11. Connect the Radia Usage Manager service to the appropriate users or workgroups.

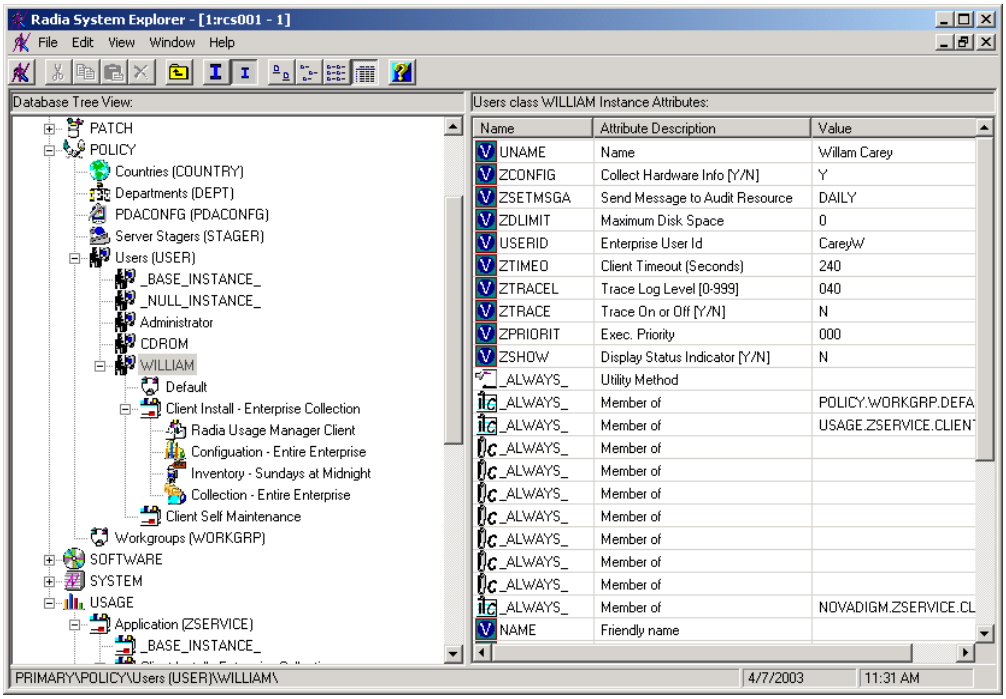


Figure 3.6 ~ Radia Usage Manager service connected to a User instance.

During the next Client Connect to the Radia Configuration Server, the service will be installed, and based on your settings, collection will begin.

Filters

By default, the Radia Usage Manager collects usage information for every executable installed on the client computer. To collect only specific executable information, filters can be defined and attached to the collection instance. Because all executable information is collected by default, the **Exclude All** filter rule must be included with any filters you use.

The USAGE domain contains classes associated with creating filters for your usage data. This enables you to collect specific information based on parameters you define. The filter related classes are:

- Filter Criteria
- Filter Rule
- Filter Set

Each of these classes contains configurable instances you can use to define your filter.

Criteria, Rule, and Set

To help you define filter parameters, the Radia Usage Manager uses filter criteria, rules, and sets.

- **Criteria**
  Criteria are specific attributes that an application may contain, such as "member of the Microsoft family of applications."
- **Rule**
  When multiple criteria are combined, they form a rule. A rule is a simple way of grouping criteria, making it easier to apply the same set of criteria to multiple services.
- **Set**
  When multiple rules are grouped into one instance, a set is created. A set is the highest level of criteria collection containing multiple rules, which in turn may contain multiple criteria.

Filter Criteria Class (UMFLTCRI)

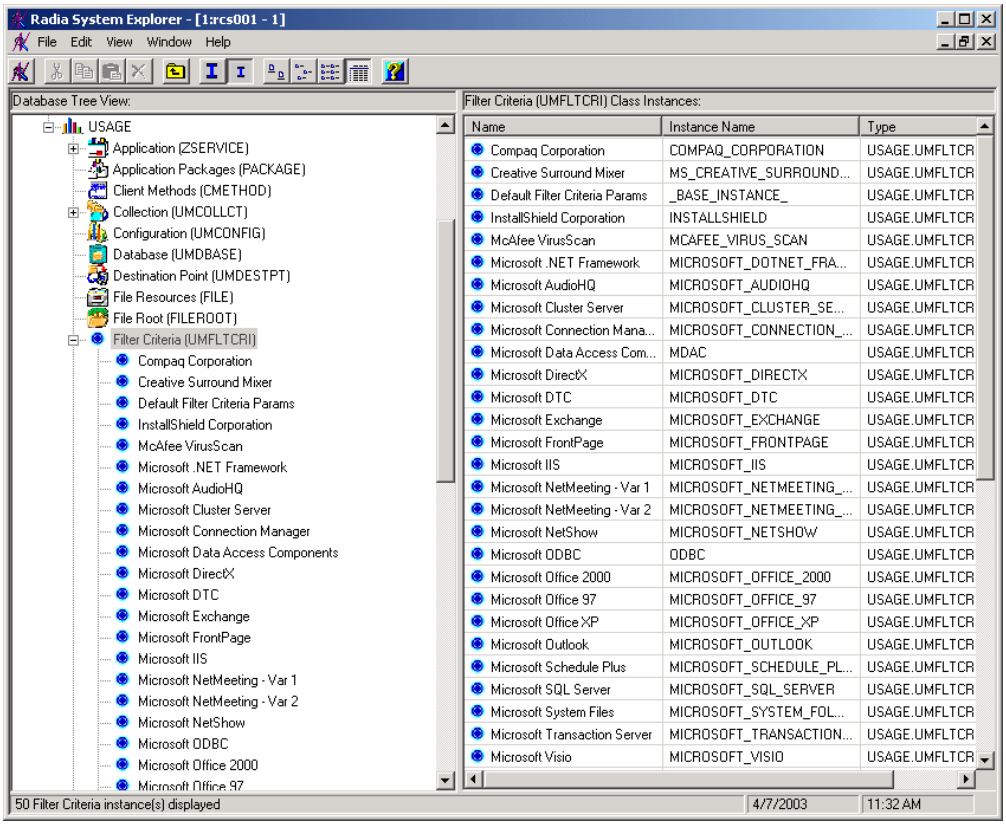


Figure 3.7 ~ Filter Criteria class (UMFLTCRI) pre-defined instances.

The Filter Criteria class contains various instances that reflect vendor-specific applications. Use these to attach a filter criterion using one of the included applications. The instances include filter criteria for Compaq, McAfee, Microsoft, and InstallShield, as well as many others.

Filter Rule Class (UMFLTRUL)

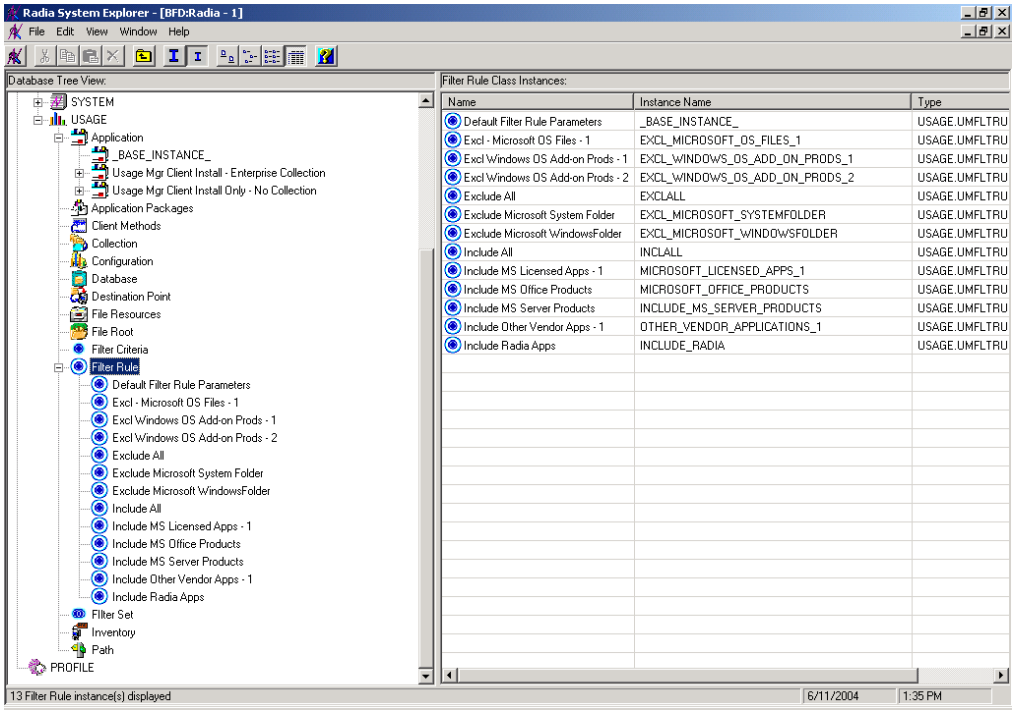


Figure 3.8 ~ Filter Rule class (UMFLTRUL) pre-defined instances.

The Filter Rule class contains pre-configured rules using common vendor-specific parameters. For example, **Include MS Office Products** will include all Microsoft Office applications, and **Exclude Microsoft Windows** will exclude all Microsoft Windows files.

This Filter Rule class connects to the usage filtering criteria. The filter type determines whether it is an inclusion or exclusion Filter Rule and its priority determines its importance when compared with other Filter Rules in a Filter Set (Zero is the lowest priority). In the event priorities are equal within a Filter Set, inclusion filters take precedence over exclusion filters.

If no criteria are specified for an inclusion filter, than all usage information is captured in the collection file. If no criteria are specified for an exclusion filter, then all usage is excluded.

Filter Set Class (UMFLTSET)

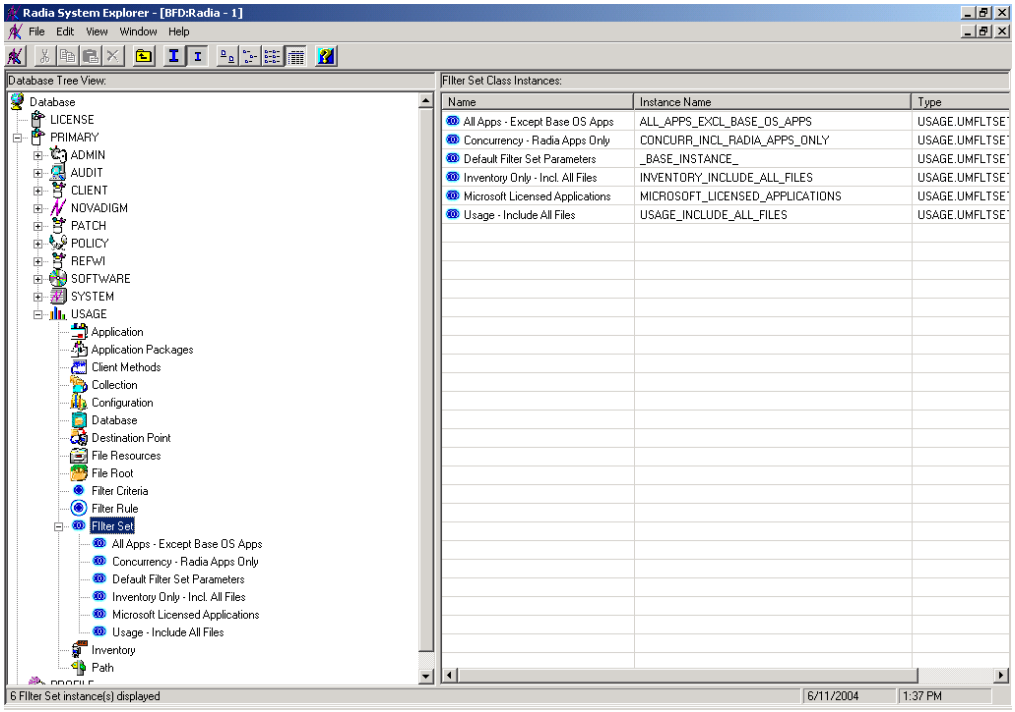


Figure 3.9 ~ Filter Set class (UMFLTSET) pre-defined instances.

A Filter Set is comprised of one, or a collection of, Filter Rules. The Filter Set class contains pre-configured Filter Sets you can use to collect or exclude vendor-specific information.

Once a Filter Set has been created, or you decide which existing Filter Set to use, connect it to a Collection class (UMCOLLCT) instance to enable the filter. Only Filter Sets may be connected to a collection class. All criteria associated with that Filter Set are then processed. By connecting the Filter Set to a Collection class instance, each data collection can then contain specific filtering.

Table 3.4 ~ Default Filter Set Parameters

Instance	Default Value	Description
NAME	Default Filter Set Parameters	Filter Set Friendly Name.
INCLUSAG	Yes	Determines whether or not to include usage data as well as inventory data in the collection.

Table 3.4 ~ Default Filter Set Parameters		
Instance	**Default Value**	**Description**
CONCURR	No	Defines whether to collect concurrent usage data. See section *Using Concurrency* on page 74 for more information.
CMETHOD	CMETHOD.UMFLTSET	Client method used to process Filter Set class instances.
FLTRUL##		Filter Rules connections.

Using Filters

Filters can be applied to Collection class instances. Use the existing Filter Set instances, or create your own using the filter classes provided. The following exercises explain how to apply a filter as well as how to create a new filter based on parameters you define.

Filter Set Class Instances

The Filter Set class (UMFLTSET) contains a few default Filter Sets that can be used for generic data collections. Each class instance collects a specific type or set of data. *Table 3.5 ~ Filter Set Class (UMFLTSET) Instances* below describes each class instance in detail.

Table 3.5 ~ Filter Set Class (UMFLTSET) Instances	
Instance Name	**Description**
All Apps – Except Base OS Apps	Collects data for all installed applications with the exception of base operating system applications.
Concurrency – Incl Radia Apps	Collects concurrency data – default setting collects data for all Radia applications.
Default Filter Set Parameters	Contains the default Filter Set instance values and is used to create custom Filter Sets.
Inventory Only – Incl All Files	Collects inventory data for installed applications - no usage data is collected.
Microsoft Licensed Applications	Collects data for Microsoft applications as defined in each Filter Criteria connection.
Usage – Include All Files	Collects all usage data.

Applying Filters

Filters can be applied to Collection class instances by simply dragging the Filter Set instance onto the appropriate Collection class instance.

To apply a filter to a Collection class

1. Start the Radia System Explorer and navigate to the USAGE domain.
2. Connect the appropriate Filter Set to the connection class you would like to apply the filter to.
3. Click **Copy** and accept the changes.

Creating Filters

Creating a Filter is comprised of three basic steps:

1. Create or select a Filter Criteria instance.
2. Create or select a Filter Rule instance and attach the Filter Criteria instance.
3. Create or select a Filter Set instance and attach the Filter Rule instance.

The following example demonstrates how to create a filter that will collect usage information for Adobe Acrobat.

To create a Filter Criteria instance

1. Start the Radia System Explorer and navigate to the USAGE domain.
2. Double-click **Filter Criteria (UMFLTCRI)**.

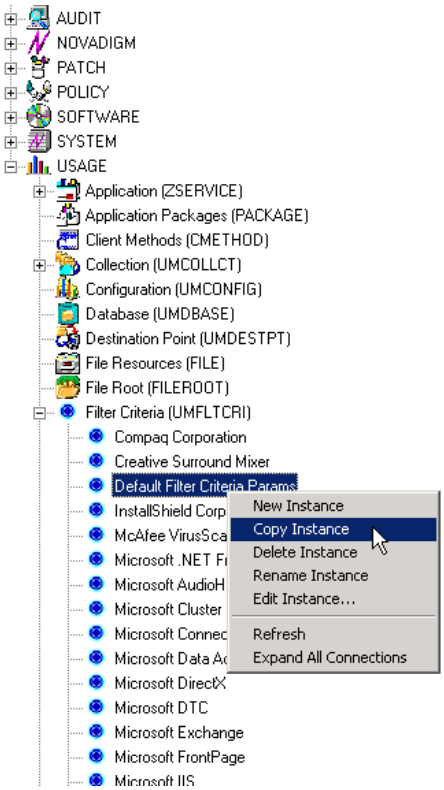


Figure 3.10 ~ Copy the default Filter Criteria instance.

3. To create a new instance right-click **Default Filter Criteria Params**, and from the shortcut menu select **Copy Instance**.

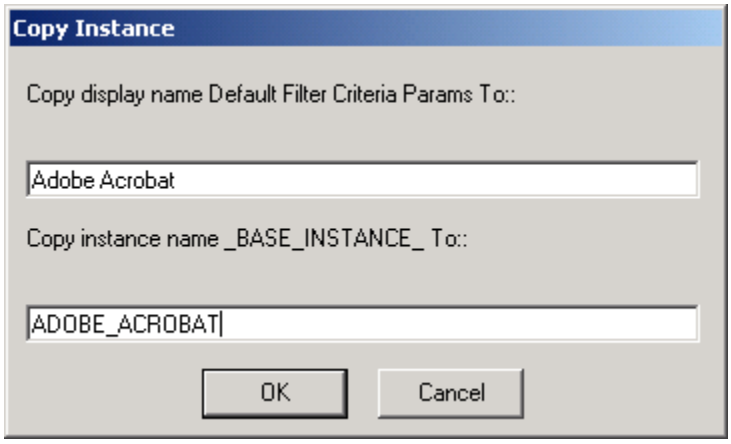


Figure 3.11 ~ Rename the Filter Criteria instance.

4. Rename the new instance **Adobe Acrobat**, and then click **OK**.
5. In the tree view of the Radia System Explorer, double-click the newly created instance. The **Editing Instance** dialog box opens.

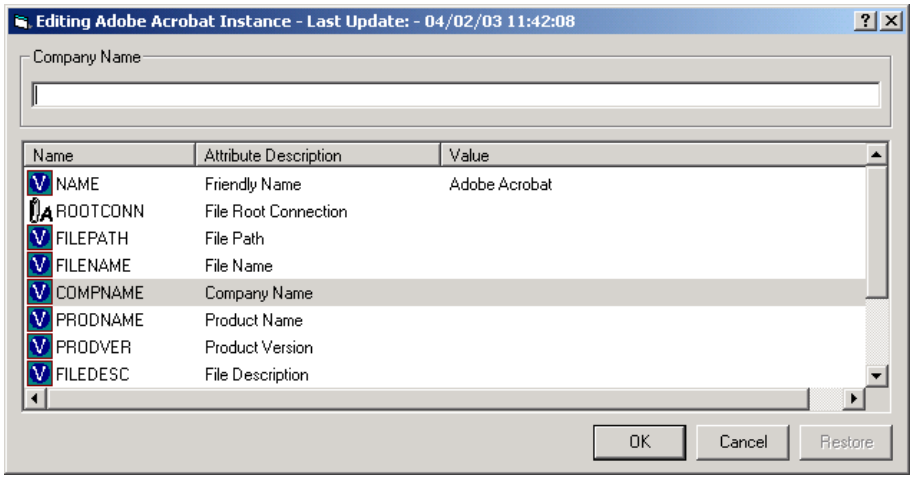


Figure 3.12 ~ New Filter Criteria parameters.

6. Use the attributes defined in *Table 3.6 ~ Filter Criteria Attributes* on page 69 to define your filter criteria

Table 3.6 ~ Filter Criteria Attributes

Attribute	Description
NAME	Friendly Name.
ROOTCONN	Compares for applications that reside in any of the predefined shell folder names, such as ProgramFilesFolder, WindowsFolder, or SystemsFolder. These can be used to filter based on a well-known folder, such as TempFolder.
FILEPATH	Defines the suffix of the path name that is appended to the file root path. For example, this would contain the characters `\Microsoft Office` regardless if the installation for the Microsoft Office application was to the `ProgramFilesFolder\Microsoft Office` path or to the `TempFilesFolder\Microsoft Office` path.
FILENAME	The application file name executable, for example `winword.exe`.
COMPNAME	The vendor name defined in the executable's header.
PRODNAME	The product name defined in the executable's header.
PRODVER	The product version defined in the executable's header.
FILEDESC	The file description defined in the executable's header.
FILEVER	The internal file version defined in the executable's header.
ORIGNAME	The original file name defined in the executable's header. This string does not change if the file is renamed.
MD5HASH	The MD5 hash file signature that uniquely identifies the contents of the file. Any change to a file results in it being assigned a unique MD5 hash signature.
CMETHOD	The client method used to process Filter Criteria instances.

7. In the **Editing Instance** dialog box (see *Figure 3.12 ~ New Filter Criteria parameters* on page 68) double-click the **COMPNAME** attribute and in the text box provided and type **Adobe**.
8. Click the **PRODNAME** attribute and type **Acrobat**.
9. Click **OK** and save the changes.

   You have successfully created a new Filter Criteria instance.

To create the Filter Rule instance

1. In the tree view of the Radia System Explorer, double-click **Filter Rule (UMFLTRUL)**.
2. Right-click **Default Filter Rule Parameters**.
3. In the shortcut menu, select **Copy Instance**.

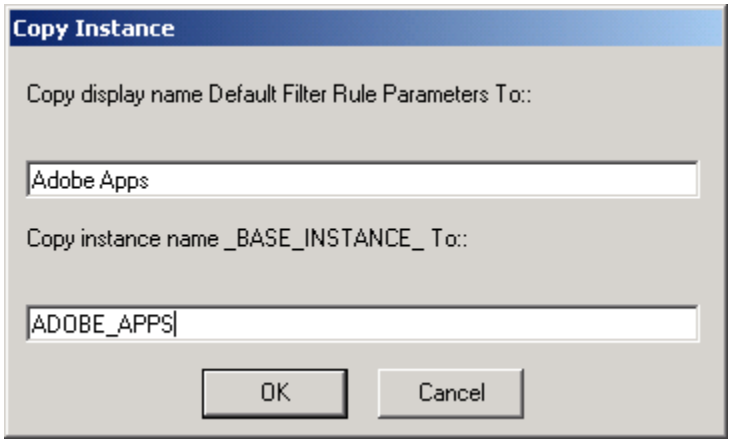


Figure 3.13 ~ Rename the Filter Rule instance.

4. Rename the new Filter Rule instance **Adobe Apps**, and click **OK**.
5. In the Radia System Explorer window, connect the Filter Criteria instance you created, **Adobe Acrobat**, to the newly created **Adobe Apps** Filter Rule instance.

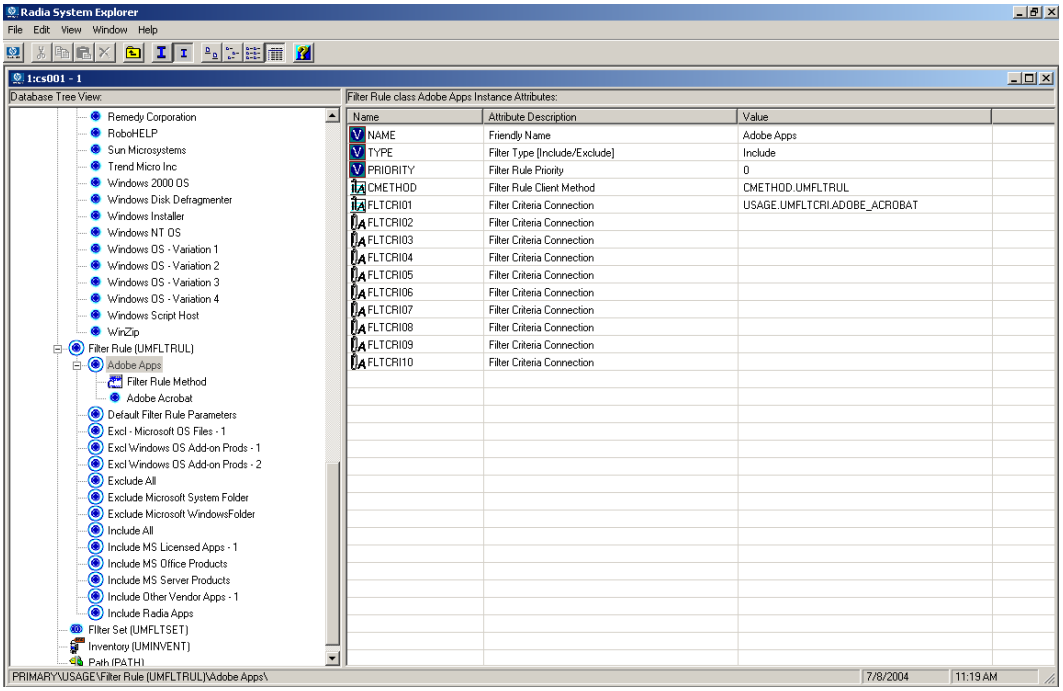


Figure 3.14 ~ Filter Criteria instance attached to the new Filter Rule instance.

6. Click **Copy** and accept the changes by clicking **Yes**, and then **OK**. The Filter Criteria instance is now connected to a Filter Rule instance.

7. In the list view of the Radia System Explorer (right pane), double-click the **PRIORITY** instance attribute and set the value to **1** to ensure this rule will be applied first. (Zero is the lowest possible priority as well as the default value. Setting this value to 1 ensures it will be applied before any default rules may be used.)

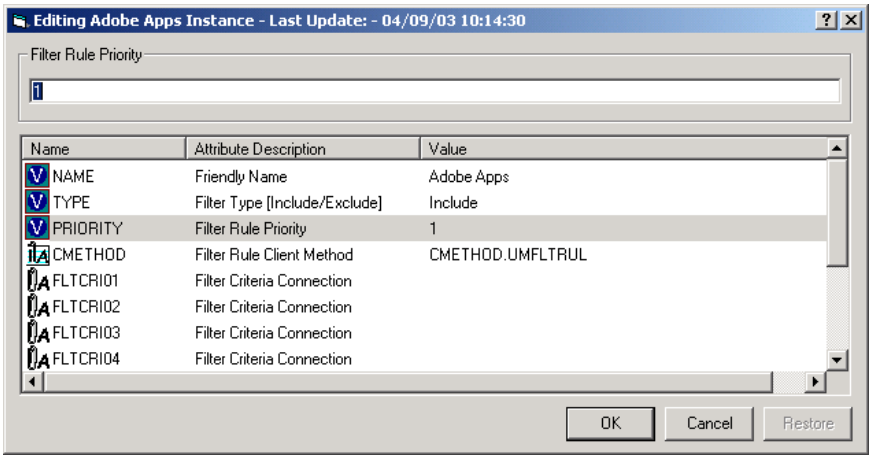


Figure 3.15 ~ PRIORITY instance attribute.

The Filter Rule instance is now complete.

To create the Filter Set instance

1. In the Radia System Explorer window, double-click **Filter Set (UMFLTSET)**.
2. Right-click **Default Filter Set Parameters**.
3. In the shortcut menu select, **Copy Instance**.

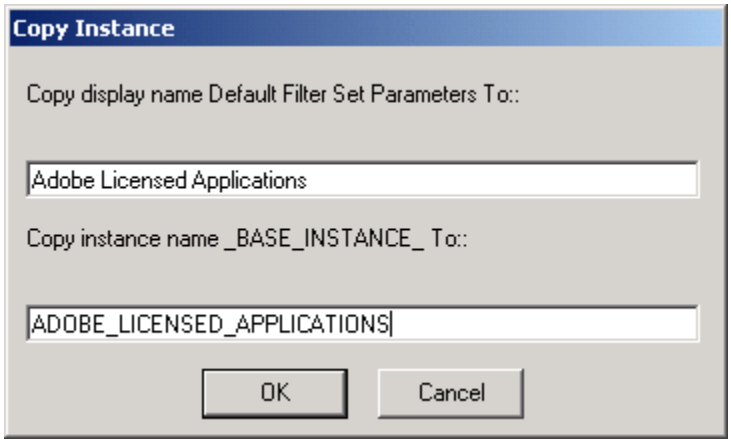


Figure 3.16 ~ Rename the Filter Set instance.

4. In the **Copy Instance** dialog box, rename the new Filter Set instance **Adobe Licensed Applications**.
5. Connect the Filter Rule instance you created earlier, **Adobe Apps** to the newly created **Adobe Licensed Applications** Filter Set instance.
6. Also connect the existing Filter Rule instance, **Exclude All**, to the newly created Filter Set instance. This ensures that only usage data for the specific executable defined in your criteria, Adobe Acrobat, will be collected.

   By default the priority setting for this instance is 0, the lowest possible. By setting the priority for the Adobe Apps rule to 1 earlier, you have given priority to that Filter Rule instance, ensuring it will be applied first.

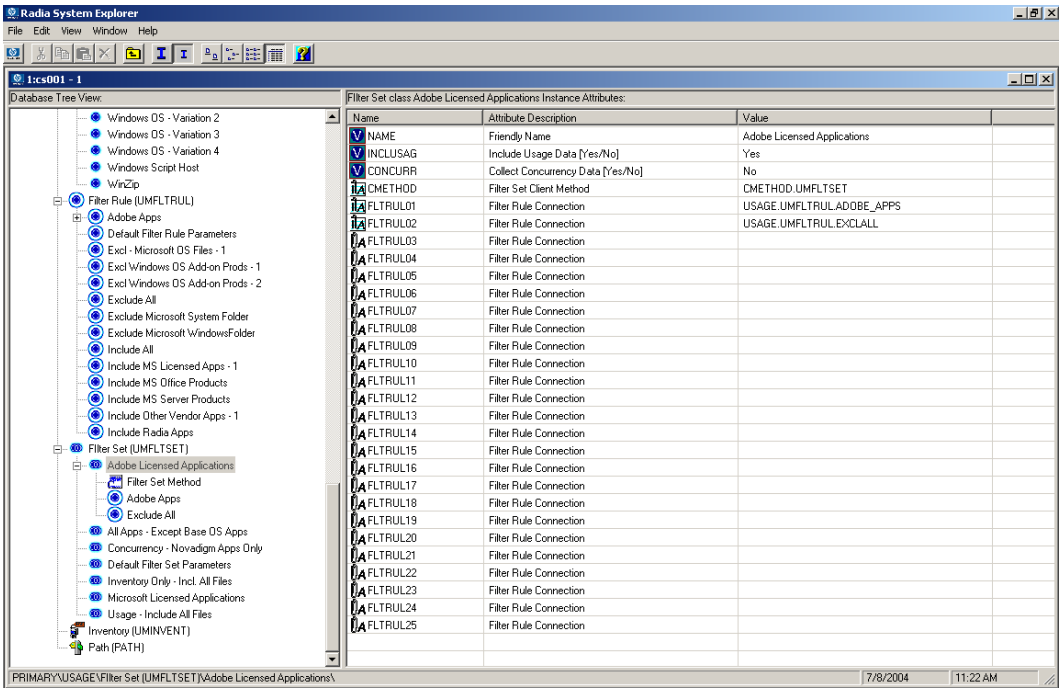


Figure 3.17 ~ Filter Rule instance connected to new Filter Set instance.

The Filter Set instance is complete. You are now ready to apply the filter to a collection instance. See the section *Applying Filters* on page 65 for more information.

Using Concurrency

Data usage collection is available either on a daily basis or on a more specific basis using concurrency. Concurrent data collection is enabled at the Filter Set level (UMFLTSET) in the CONCURR instance attribute.

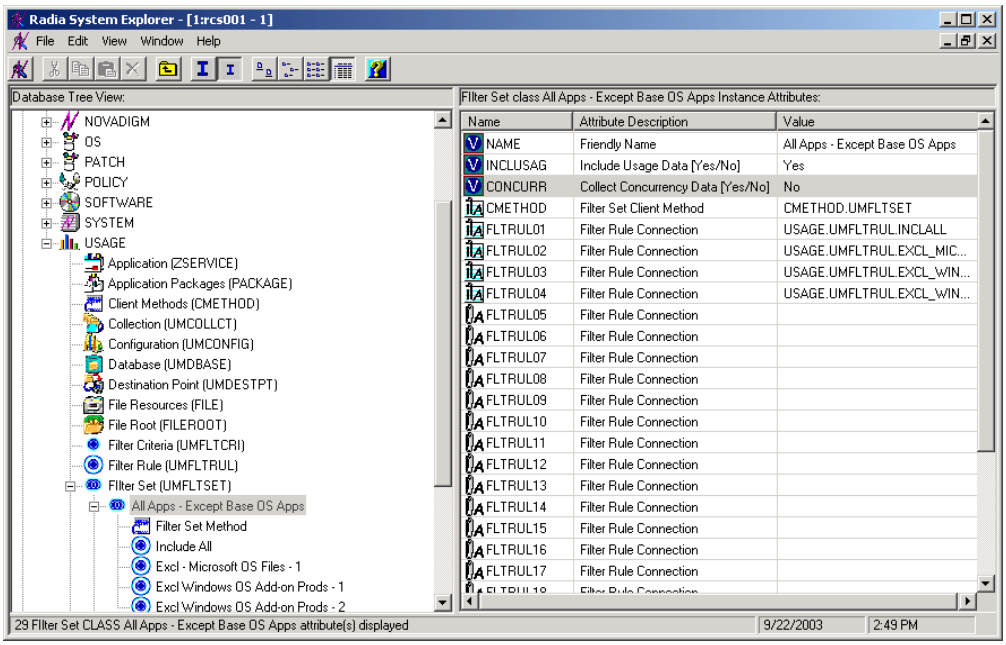


Figure 3.18 ~ CONCURR instance attribute.

To enable concurrency usage data collection

1. Navigate to an existing Filter Set instance (see the previous section for information about creating Filter Sets instances).
2. Double-click the **CONCURR** instance attribute.

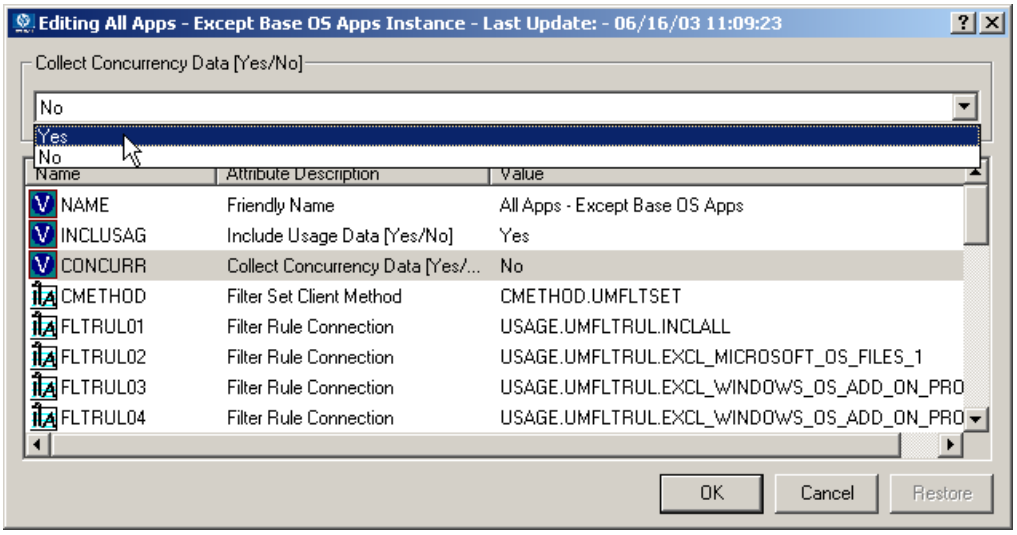


Figure 3.19 ~ Editing Instance dialog box for the CONCURR instance attribute.

3. From the drop-down list select **Yes**, and then click **OK**. Click **Yes** to save your changes.

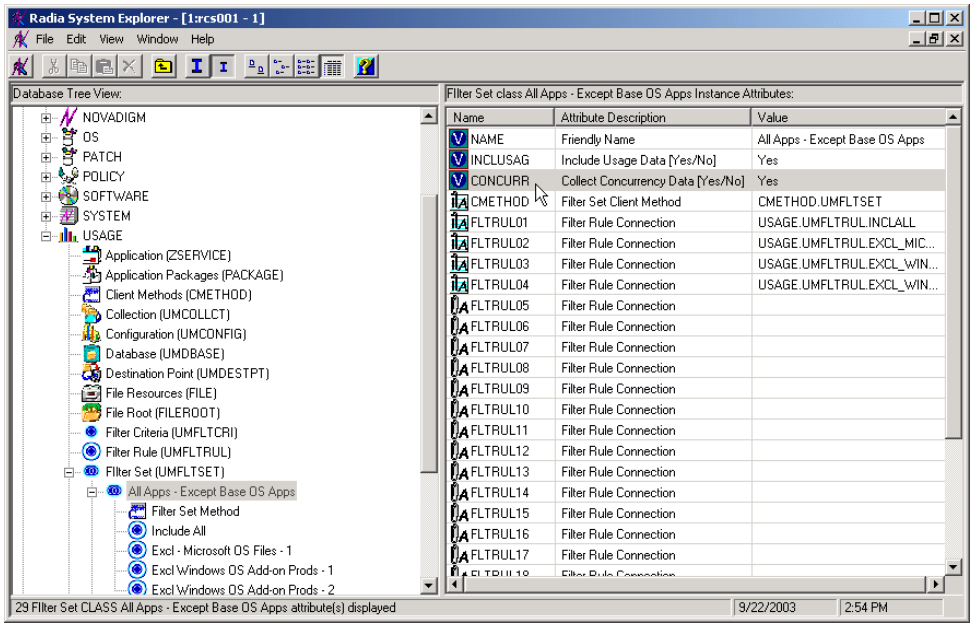


Figure 3.20 ~ Concurrency data collection turned on.

Concurrency usage data collection has been enabled. Concurrent usage data will now be collected for the appropriate applications in fifteen-minute intervals, by default.

Caution

Concurrent usage data collection generates a large amount of data. Make sure you have enough available resources before you begin collecting this type of data.

Initiating Inventory and Usage Collections

The executables, **usdbinvn.exe** and **usdbcoll.exe** can be used to initiate the collection of inventory and usage data respectively. After a default installation, these files are located in the \Program Files\Novadigm\Application Extensions\Bin\ folder.

Initiating Inventory Data Collection

The executable **usdbinvn.exe,** collects current inventory data on a target machine. Run this executable to force inventory collection for any machine with the Radia Usage Manager Client installed. No parameters are required. The inventory information is stored within the **history.usdbase** file, on the local machine at the root of the \Usage Manager\ directory.

Configuring Usage Data Collection

The executable, **usdbcoll.exe**, is responsible for configuring the Radia Usage Manager data collection environment on the client device.

Defining a Database Collection Point

A database definition contains the information required to send the collected usage data to a specific collection point in the backend infrastructure. It has a unique name and associated parameters.

Database entries can be configured in the Radia Database in the USAGE domain. Default database and associated configuration parameters are shipped with the Radia Usage Manager. To manually define a database collection point, run the following command:

```
USDBCOLL.EXE /i DatabaseName=SQL_database_name
```

The /i parameter indicates an **install database** operation.

Initiating a Usage Data Collection Request

Execute the **usdbcoll.exe** module to initiate a data collection request. It can be launched by the Radia Usage Manager's internal scheduler, by a Radia Service or Notify request, or otherwise. Any filtering is applied during the collection process.

To launch a collection, run the following command for the specific database name defined in the command line:

```
USDBCOLL.EXE DatabaseName=SQL_database_name
```

Initiating a Usage Data Re-collection Request

Once data has been collected, it is not sent to the server again during a normal collection request.

Caution

Consider the consequences before recollecting usage data. Recollection may result in duplicate data or a corrupted SQL database if not done within strict guidelines and without the consent of HP Technical Support.

To initiate a re-collection of data (data already sent to the server), execute the **usdbcoll.exe** module using the following command line options:

```
USDBCOLL.EXE DatabaseName=SQL_database_name, RecollectMode=3
```

See Table 3.7, below, for a description of the USDBCOLL.EXE parameter values.

Table 3.7 ~ USDBCOLL.EXE Command Line Parameters

Parameter	Description
DatabaseName=*UniqueSQLDatabaseName*	Defines a unique SQL database name for collection purposes.
RecollectMode=*Value*	Defines the type of data to be re-collected. Value can be either 1,2, or 3 as defined below. 1 – **Signatures** - all file signature data is re-collected for all files that meet the collection filter. This includes the data for the FileSignatures and FileSignatureProperties tables. 2- **Files** - all Windows file data is recollected for all files that meet the collection filter. This includes all of the data collected in Signature mode as well as data for the WindowsFiles and WindowsFileInstances tables. 3 – **Usage** - all Windows file usage data is re-collected for all files that meet the collection filter. This includes all of the data collected in File mode as well as data for the WindowsFileUsage table.

Enabling Privacy

The Radia Usage Manager allows for the obfuscation of certain data attributes in order to ensure privacy, if required. The following information can remain undisclosed:

- **User Name**
  The user name is reported as [AnyUser].
- **Computer Name**
  The computer name is reported as a random set of alphanumeric values.
- **Domain Name**
  The domain name is reported as a random set of alphanumeric values.
- **Usage Times**
  The executable file usage times and launch counts are all reported as zero values.

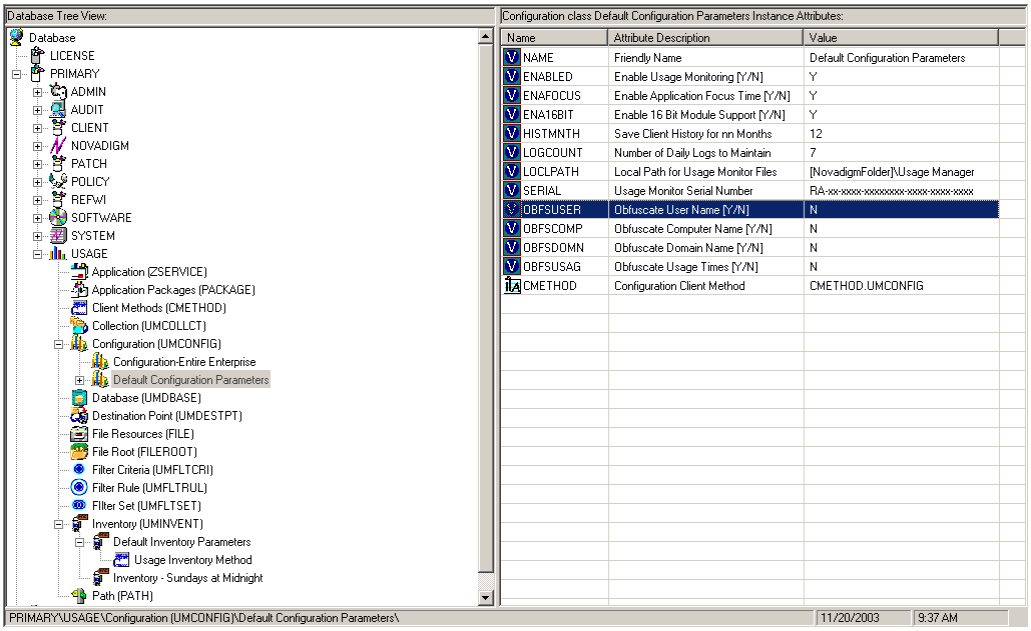


Figure 3.21 ~ UMCONFIG attributes related to obfuscation.

Four attributes in the **UMCONFIG** class directly relate to this information. Set these values to **Y** to hide the related data.

Table 3.8 ~ Obfuscation Attributes of the UMCONFIG class

Attribute	Description
OBFSUSER	Set this value to Y to obfuscate user name data.
OBFSCOMP	Set this value to Y to obfuscate computer name data.
OBFSDOMN	Set this value to Y to obfuscate domain name data.
OBFSUSAG	Set this value to Y to obfuscate user usage time data.

Summary

- Radia contains a Radia Usage Manager service out of the box that requires minimal configuration.
- Use the existing services to distribute the Radia Usage Manager client.
- Use the filter-specific classes to create filters.
- Attach Filters Sets instances to Collection instances.
- Concurrency usage data collection is turned on at the Filter Set level.
- The UMCONFIG class contains specific attributes that will allow you to maintain privacy within your usage data.
- The executables, usdbcoll.exe and usdbinvn.exe collect usage and inventory data, respectively.

4

Generating Usage Reports

At the end of this chapter, you will:

- Understand the different reporting functions of the Radia Usage Manager.
- Know how to use the Radia Usage Manager to view collected data.

Accessing the Radia Usage Manager Reports

The Radia Usage Manager reports can be accessed through the Radia Management Portal or by using a Web browser to navigate to the location where it was installed in your enterprise.

To access the Radia Usage Manager reports using a Web browser

1. Open a Web browser and type the location where you installed the Radia Usage Manager, for example, `http://Radia Integration Server:3466`.
   The Radia Usage Manager can be accessed through either the Radia Integration Server or the Radia Management Portal. The address you enter here should reflect whichever Radia component you are currently using.
2. Click the **USAGE** tab to access the Radia Usage Manager reports.

Creating Usage Reports

Use the Radia Usage Manager to generate reports based on the data you collected and made available in your SQL database. There are two main categories, Application Usage and Operational Reports, and several different report types within each category.

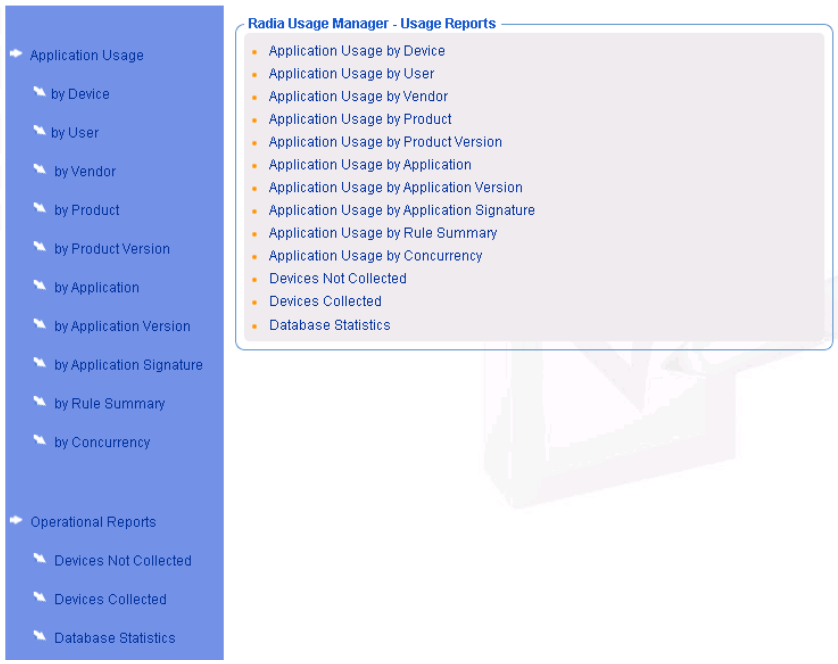


Figure 4.1 ~ Application Usage Reports main page.

Click a report name to bring you to the summary report page of your choice. Each summary page is described in detail in later sections.

We suggest you determine what you would like to report on and use the report generator to create your own customized reports. Each page offers different text boxes to customize the information that is searched for and displayed. In these text boxes, type the complete name, or the beginning of a name, to customize your reports (e.g., on the **by Device** page type a **w%** in the **Domain** text box to return all domains beginning with a "w"). When you are finished filling in the values, click **Submit Request**. The information is displayed beneath the search criteria section in table format.

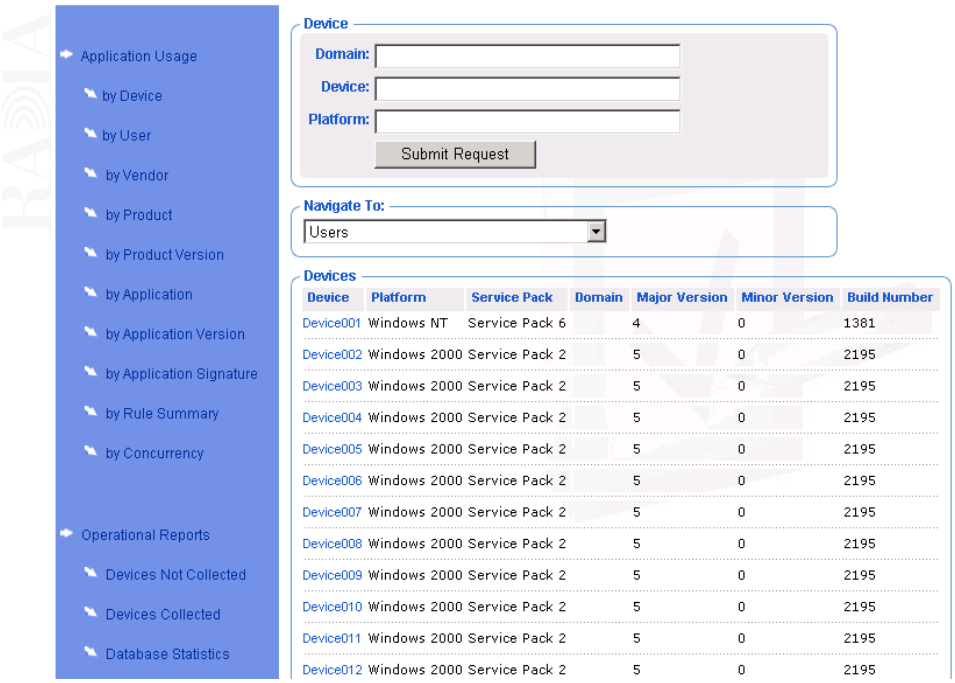


Figure 4.2 ~ Summary data is displayed.

Note

Each search criteria text box in the Device group box is optional. Leaving a text box blank and clicking **Submit Request** will return all occurrences.

The data displayed in each table is customizable. Click any column heading to sort the data or click any individual record to find out more information about that specific application, device, user, or any of the other available choices.

Creating Application Usage Reports

Application Usage Reports offer an extensive and customizable tool for displaying reports. Application Usage Reports allow you to query your Radia Usage database and return an informative and interactive report based on, among other things, application, product, device, and user.

Some reports offer the options to select, include, or exclude group rules. Group rules are created and maintained by the Radia Usage Manager Rule Editor. Each item in the drop-down lists for **Include Rule** and **Exclude Rule** is prefixed by a code indicating the type of rule.

- **(C) Criteria**
  Lowest level search. Elements of a Criteria are ANDed together during the search.
- **(R) Rule**
  A group of chosen criteria. Criteria in a Rule are ORed together during the search.
- **(RS) RuleSet**
  A group of Rules. Rules in a RuleSet are ORed together during the search.
- **(RSG) RuleSetGroup**
  A group of RuleSets. RuleSets in a RuleSetGroup are ORed together during the search.

By Device

Select **by Device** to generate a report based on individual device descriptions, locations, or even operating systems.

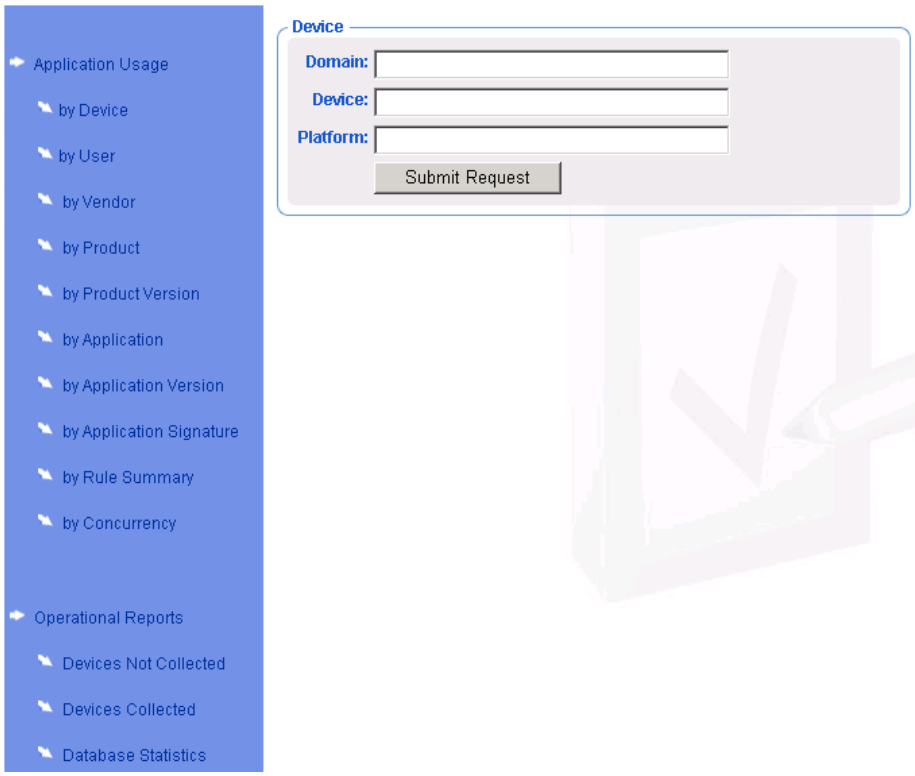


Figure 4.3 ~ Application Usage by Device page.

Three options are available when you choose to display the information by device:

- **Domain** – Type the name of the domain you want to display.
- **Device** – Type the individual device name you want to report on.
- **Platform** – Enter the operating system name for which you would like to see reports.

Remember, entering just the beginning of a value in any text box followed by % will return all appropriate occurrences. For example, entering **Win%** in the **Platform** text box could possibly return, Windows 9x or Windows NT.

By User

Select **by User** to generate a report based on individual user information.

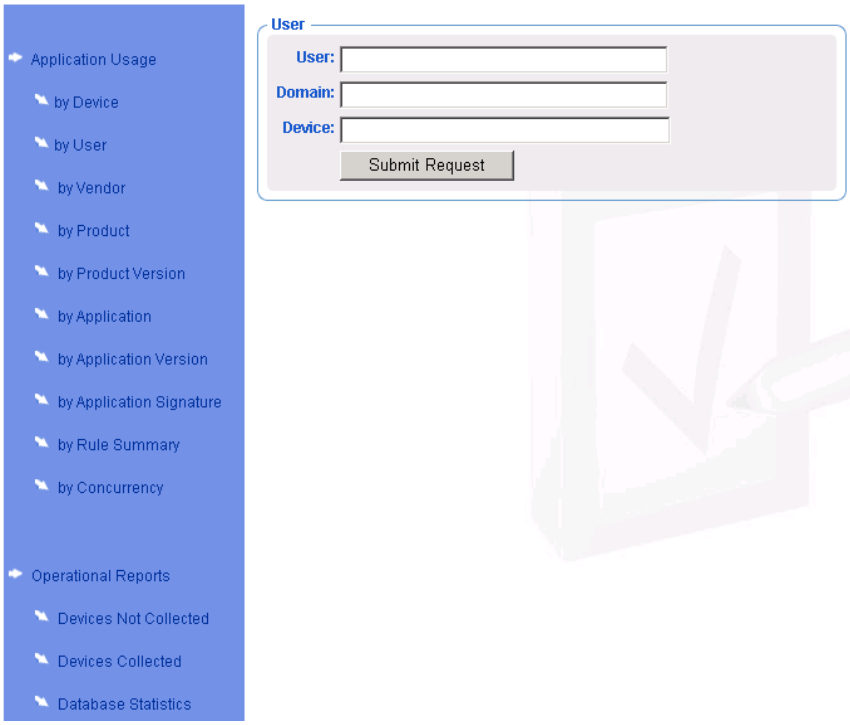


Figure 4.4 ~ Application Usage by User.

Three options are available when you choose to display the information by user:

- **User** – Type the name of the user for whom you want to display information.
- **Domain** – Type the name of any domain containing the machine that the individual user may have used.
- **Device** – Enter the specific device name for which you want to see user information.

To return all collected data for any user beginning with the letter **b**, type **b%** in the **User** text box and click **Submit Request**. Any user fitting that criterion will be returned, such as Barry, Brenda, B1295, bpL200, and so on.

By Vendor

Select **by Vendor** to generate a report based on specific vendor details.

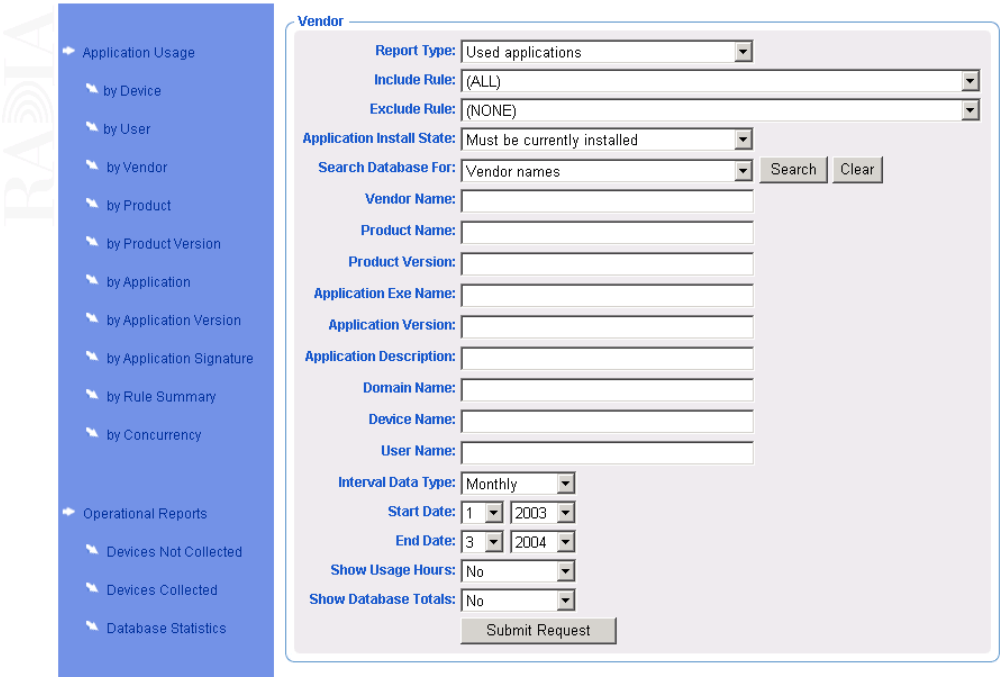


Figure 4.5 ~ Application Usage by Vendor.

The following options are available when generating vendor reports. Values are not required for every option. Leaving all options blank will return all information in your database – this is not recommended as it may take a very long time depending upon the size of your database.

- **Report Type** – From the drop-down list, select the type of vendor report you want to see. This includes used and unused applications as well as application inventory information.
- **Include Rule** – From the drop-down list, select an Include Rule, or leave blank.
- **Exclude Rule** – From the drop-down list, select an Exclude Rule, or leave blank.
- **Application Install State** – Select whether or not to return information for applications that are currently installed.
- **Search Database For** – From the drop-down list, select a category and click **Search** to return a report of every related item. Then click any returned values to automatically fill in the current search criteria text boxes with the related information. Click **Clear** to reset the list.

- **Vendor Name –** Type a vendor name to display all relevant products.
- **Product Name –** Type a specific product name.
- **Product Version –** Enter a product version.
- **Application Exe Name –** Type a specific application executable name.
- **Application Version –** Enter a specific application version.
- **Application Description –** Enter an application description.
- **Domain Name –** Type the name of a domain you want to display.
- **Device Name** – Type the individual device name you want to report on.
- **User Name** – Enter the user name for which you want to see applications displayed.
- **Interval Data Type** – Select a Daily, Monthly, or Yearly interval.
- **Start Date** – Use the drop-down lists to select a start date for the report.
- **End Date** — Use the drop-down lists to select an end date for the report.
- **Show Usage Hours** – Select whether or not to show Usage hours in the report.
- **Show Database Totals –** Select whether or not to display a database totals report along with your generated usage report.

By Product

Select **by Product** to generate a report based on specific product details.

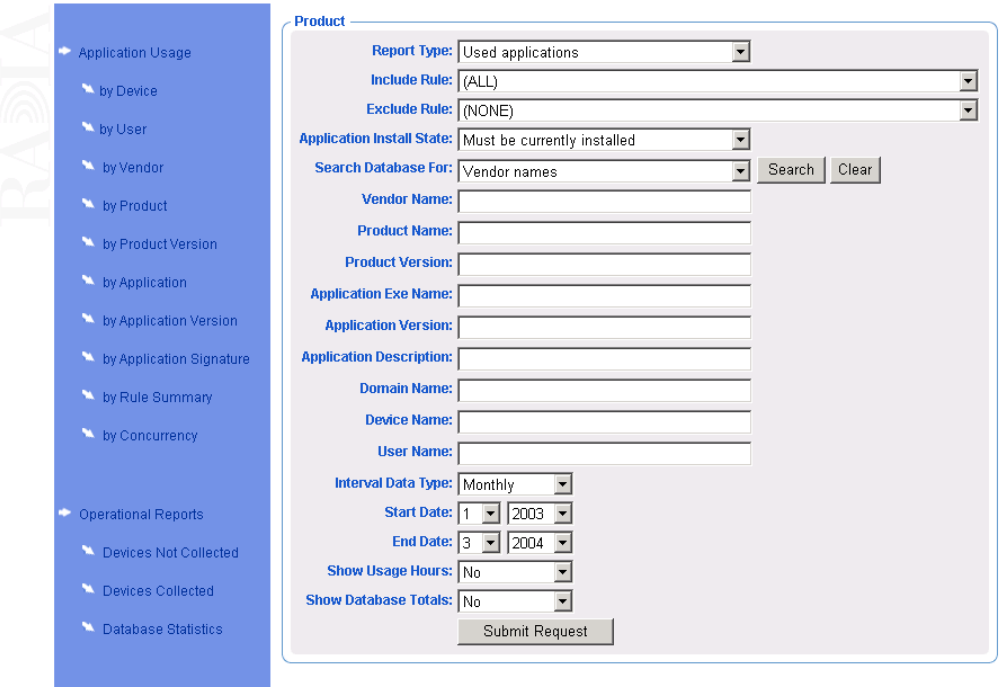


Figure 4.6 ~ Application Usage by Product.

The following options are available when generating product reports. Values are not required for every option. Leaving all options blank will return all information in your database – this is not recommended as it may take a very long time depending upon the size of your database.

- **Report Type** – From the drop-down list, select the type of product report you want to see. This includes used and unused applications as well as application inventory information.
- **Include Rule** – From the drop-down list, select an Include Rule or leave blank.
- **Exclude Rule** – From the drop-down list, select an Exclude Rule or leave blank.
- **Application Install State** – Select whether or not to return information for applications that are currently installed.
- **Search Database For** – From the drop-down list, select a category and click **Search** to return a report of every related item. Then click any returned values to automatically fill in the current search criteria text boxes with the related information. Click **Clear** to reset the list.

- **Vendor Name –** Type a vendor name to display all relevant products.
- **Product Name –** Type a specific product name.
- **Product Version –** Enter a product version.
- **Application Exe Name –** Type a specific application executable name.
- **Application Version –** Enter a specific application version.
- **Application Description –** Enter an application description.
- **Domain Name –** Type the name of a domain you want to display.
- **Device Name** – Type the individual device name you want to report on.
- **User Name** – Enter the user name for which you want to see applications displayed.
- **Interval Data Type** – Select a Daily, Monthly, or Yearly interval.
- **Start Date** – Use the drop-down lists to select a start date for the report.
- **End Date** — Use the drop-down lists to select an end date for the report.
- **Show Usage Hours** – Select whether or not to show Usage hours in the report.
- **Show Database Totals –** Select whether or not to display a database totals report along with your generated usage report.

By Product Version

Select **by Product Version** for reports based on product version information.

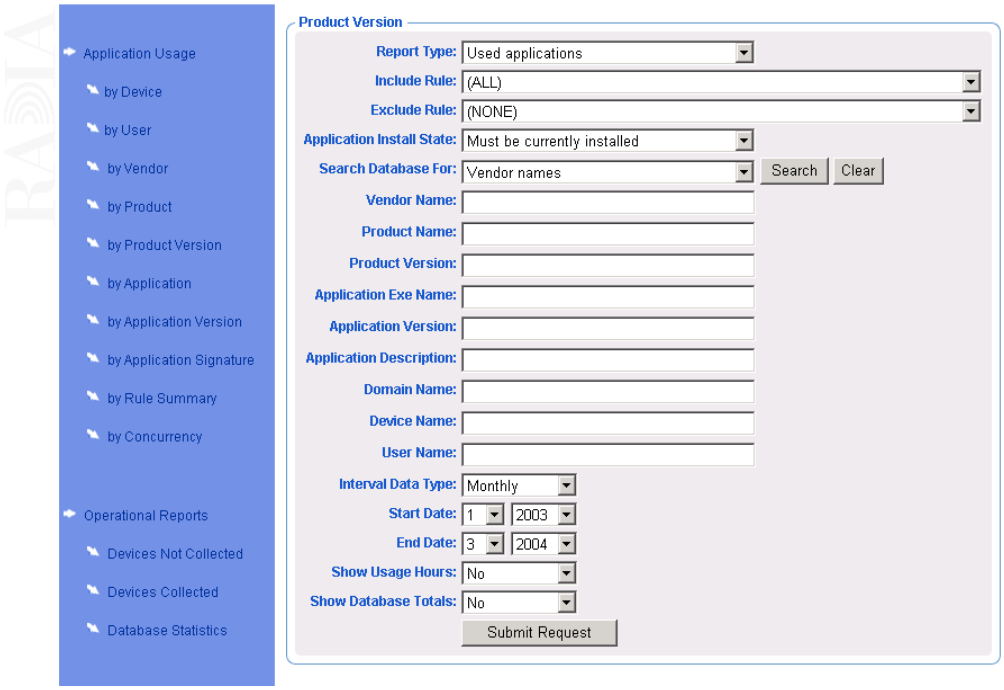


Figure 4.7 ~ Application Usage by Product Version.

The following options are available when generating product version reports. Values are not required for every option. Leaving all options blank will return all information within your database – this is not recommended as it may take a very long time depending upon the size of your database.

- **Report Type** – From the drop-down list, select the type of product version report you want to see. This includes used and unused applications as well as application inventory information.
- **Include Rule** – From the drop-down list, select an Include Rule or leave blank.
- **Exclude Rule** – From the drop-down list, select an Exclude Rule or leave blank.
- **Application Install State** – Select whether or not to return information for applications that are currently installed.
- **Search Database For** – From the drop-down list, select a category and click **Search** to return a report of every related item. Then click any returned values to automatically fill in

the current search criteria text boxes with the related information. Click **Clear** to reset the list.

- **Vendor Name –** Type a vendor name to display all relevant products.
- **Product Name –** Type a specific product name.
- **Product Version –** Enter a product version.
- **Application Exe Name –** Type a specific application executable name.
- **Application Version –** Enter a specific application version.
- **Application Description –** Enter an application description.
- **Domain Name –** Type the name of a domain you want to display.
- **Device Name** – Type the individual device name you want to report on.
- **User Name** – Enter the user name for which you want to see applications displayed.
- **Interval Data Type** – Select a Daily, Monthly, or Yearly interval.
- **Start Date** – Use the drop-down lists to select a start date for the report.
- **End Date** — Use the drop-down lists to select an end date for the report.
- **Show Usage Hours** – Select whether or not to show Usage hours in the report.
- **Show Database Totals –** Select whether or not to display a database totals report along with your generated usage report.

By Application

Select **by Application** to generate a report based on the individual applications within your database.

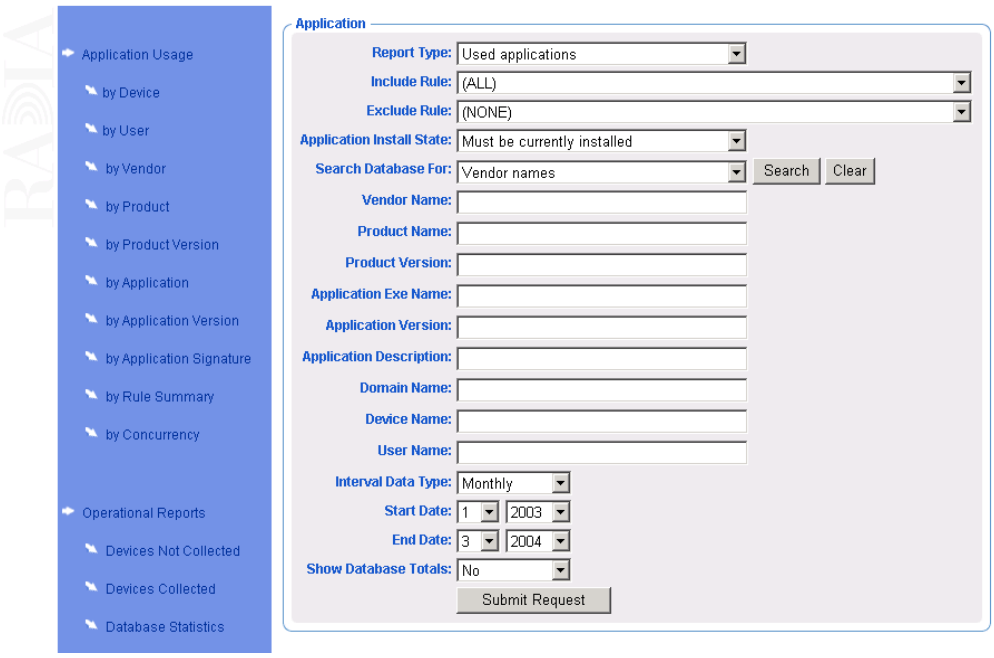


Figure 4.8 ~ Application Usage by application.

The following options are available when generating application reports. Values are not required for every option. Leaving all options blank will return all information within your database – this is not recommended as it may take a very long time depending upon the size of your database.

- **Report Type** – From the drop-down list, select the type of application report you want to see. This includes used and unused applications as well as application inventory information.
- **Include Rule** – From the drop-down list, select an Include Rule or leave blank.
- **Exclude Rule** – From the drop-down list, select an Exclude Rule or leave blank.
- **Application Install State** – Select whether or not to return information for applications that are currently installed.
- **Search Database For** – From the drop-down list, select a category and click **Search** to return a report of every related item. Then click any returned values to automatically fill in the current search criteria text boxes with the related information. Click **Clear** to reset the list.

- **Vendor Name –** Type a vendor name to display all relevant products.
- **Product Name –** Type a specific product name.
- **Product Version –** Enter a product version.
- **Application Exe Name –** Type a specific application executable name.
- **Application Version –** Enter a specific application version.
- **Application Description –** Enter an application description.
- **Domain Name –** Type the name of a domain you want to display.
- **Device Name** – Type the individual device name you want to report on.
- **User Name** – Enter the user name for which you want to see applications displayed.
- **Interval Data Type** – Select a Daily, Monthly, or Yearly interval.
- **Start Date** – Use the drop-down lists to select a start date for the report.
- **End Date** — Use the drop-down lists to select an end date for the report.
- **Show Usage Hours** – Select whether or not to show Usage hours in the report.
- **Show Database Totals –** Select whether or not to display a database totals report along with your generated usage report.

By Application Version

Select **by Application Version** to generate a report based on the version of individual applications within your database.

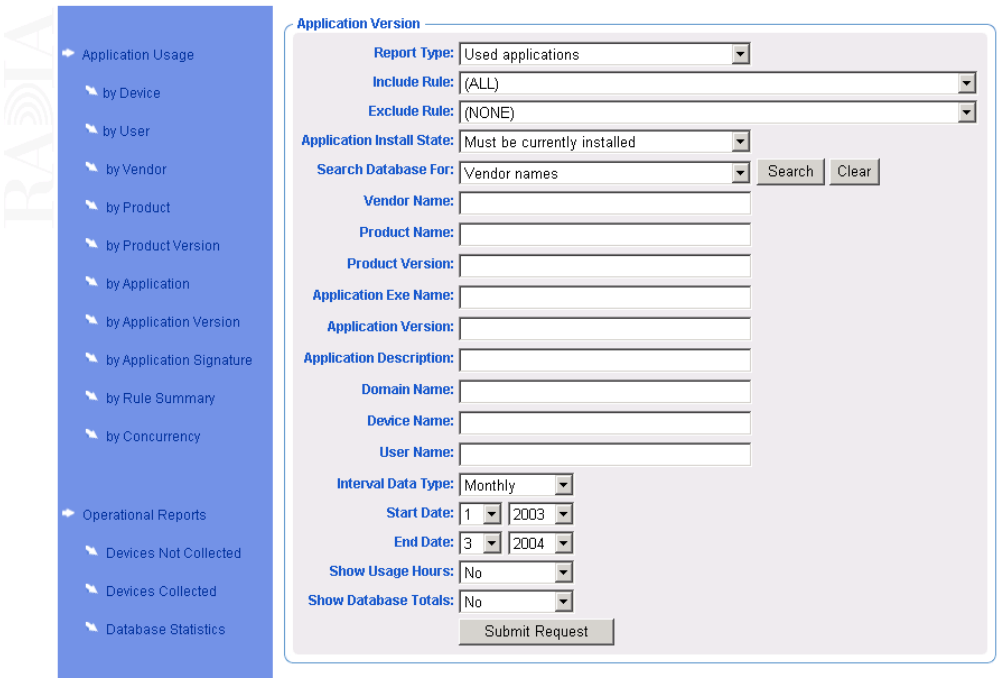


Figure 4.9 ~ Application Usage by Application Version.

The following options are available when generating application version reports. Values are not required for every option. Leaving all options blank will return all information within your database – this is not recommended as it may take a very long time depending upon the size of your database.

- **Report Type** – From the drop-down list, select the type of application version report you want to see. This includes used and unused applications as well as application inventory information.
- **Include Rule** – From the drop-down list, select an Include Rule or leave blank.
- **Exclude Rule** – From the drop-down list, select an Exclude Rule or leave blank.
- **Application Install State** – Select whether or not to return information for applications that are currently installed.

- **Search Database For** – From the drop-down list, select a category and click **Search** to return a report of every related item. Then click any returned values to automatically fill in the current search criteria text boxes with the related information. Click **Clear** to reset the list.
- **Vendor Name –** Type a vendor name to display all relevant products.
- **Product Name –** Type a specific product name.
- **Product Version –** Enter a product version.
- **Application Exe Name –** Type a specific application executable name.
- **Application Version –** Enter a specific application version.
- **Application Description –** Enter an application description.
- **Domain Name –** Type the name of a domain you want to display.
- **Device Name** – Type the individual device name you want to report on.
- **User Name** – Enter the user name for which you want to see applications displayed.
- **Interval Data Type** – Select a Daily, Monthly, or Yearly interval.
- **Start Date** – Use the drop-down lists to select a start date for the report.
- **End Date** — Use the drop-down lists to select an end date for the report.
- **Show Usage Hours** – Select whether or not to show Usage hours in the report.
- **Show Database Totals –** Select whether or not to display a database totals report along with your generated usage report.

By Application Signature

Select **by Application Signature** to generate a report based on the signature of individual applications in your database.

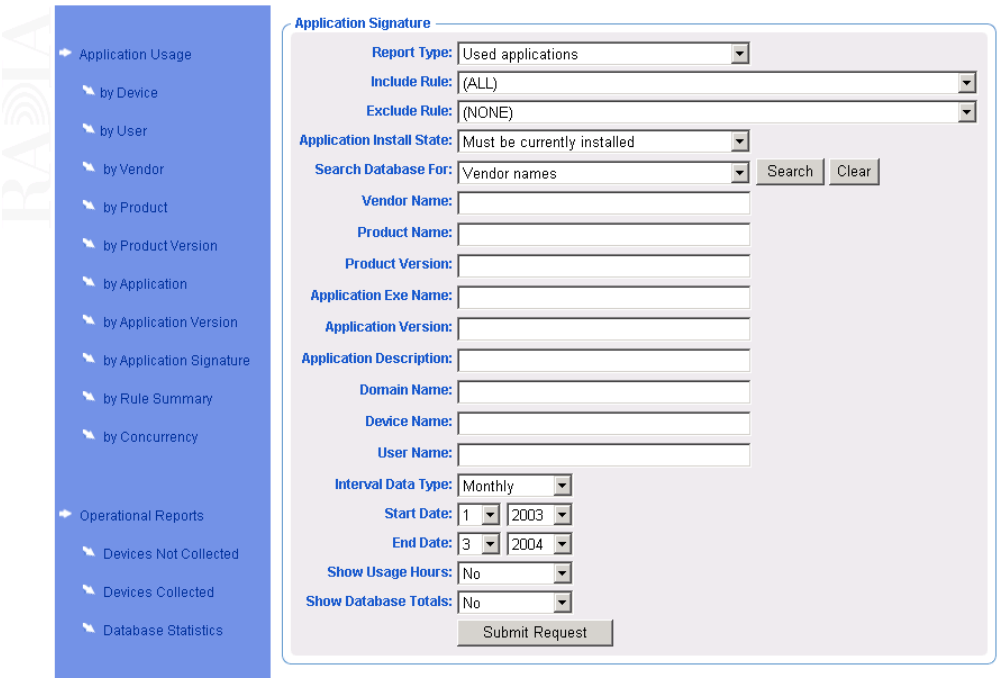


Figure 4.10 ~ Application Usage by Application Signature.

The following options are available when generating application signature reports. Values are not required for every option. Leaving all options blank will return all information within your database – this is not recommended as it may take a very long time depending upon the size of your database.

- **Report Type** – From the drop-down list, select the type of application signature report you want to see. This includes used and unused applications as well as application inventory information.
- **Include Rule** – From the drop-down list, select an Include Rule or leave blank.
- **Exclude Rule** – From the drop-down list, select an Exclude Rule or leave blank.
- **Application Install State** – Select whether or not to return information for applications that are currently installed.

- **Search Database For** – From the drop-down list, select a category and click **Search** to return a report of every related item. Then click any returned values to automatically fill in the current search criteria text boxes with the related information. Click **Clear** to reset the list.
- **Vendor Name –** Type a vendor name to display all relevant products.
- **Product Name –** Type a specific product name.
- **Product Version –** Enter a product version.
- **Application Exe Name –** Type a specific application executable name.
- **Application Version –** Enter a specific application version.
- **Application Description –** Enter an application description.
- **Domain Name –** Type the name of a domain you want to display.
- **Device Name** – Type the individual device name you want to report on.
- **User Name** – Enter the user name for which you want to see applications displayed.
- **Interval Data Type** – Select a Daily, Monthly, or Yearly interval.
- **Start Date** – Use the drop-down lists to select a start date for the report.
- **End Date** — Use the drop-down lists to select an end date for the report.
- **Show Usage Hours** – Select whether or not to show Usage hours in the report.
- **Show Database Totals –** Select whether or not to display a database totals report along with your generated usage report.

By Rule Summary

Select **by Rule Summary** to generate a report using rule summary information.

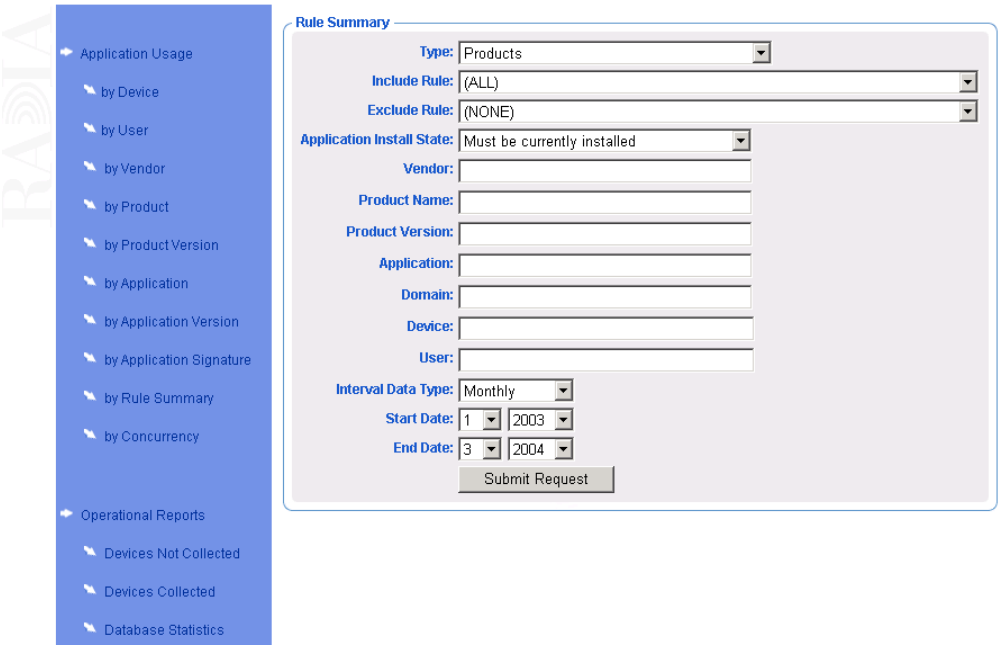


Figure 4.11 ~ Application Usage by Rule Summary.

The following options are available when generating rule summary reports. Values are not required for every option. Leaving all options blank will return all information in your database – this is not recommended as it may take a very long time depending upon the size of your database.

- **Type** – From the drop-down list, select the type of rule summary report you want to see. This includes products, product versions, applications, and application versions.
- **Include Rule** – From the drop-down list, select an Include Rule or leave blank.
- **Exclude Rule** – From the drop-down list, select an Exclude Rule or leave blank.
- **Application Install State** – Select whether or not to return information for applications that are currently installed.
- **Vendor** – Type a vendor name to display all relevant products.
- **Product Name** – Type a specific product name.
- **Product Version** – Enter a product version.

- **Application –** Enter the name of an application.
- **Domain –** Type the name of a domain you want to display.
- **Device** – Type the individual device name you want to report on.
- **User** – Enter the user name for which you want to see applications displayed.
- **Interval Data Type** – Select a Daily, Monthly, or Yearly interval.
- **Start Date** – Use the drop-down lists to select a start date for the report.
- **End Date** — Use the drop-down lists to select an end date for the report.

By Concurrency

Select **by Concurrency** to generate reports that correlate concurrent application usage across multiple devices from your database. Concurrency must be turned on in order to collect the required information. See *Chapter 3: Radia Usage Manager Client* starting on page 51.

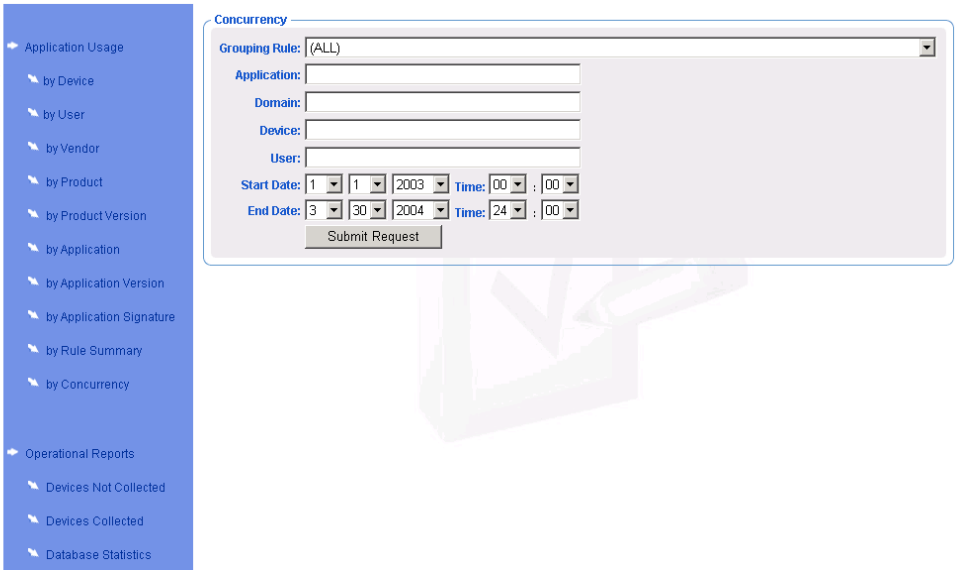


Figure 4.12 ~ Application Usage by Concurrency.

The following options are available when generating concurrency reports. Values are not required for every option. Leaving all options blank will return all information in your database – this is not recommended as it may take a very long time depending upon the size of your database.

Note

We strongly recommend that you select a specific application executable to search for over a reasonable time period.

- **Grouping Rule** – From the drop-down list, select a Group Rule or leave blank.
- **Application** – Enter the name of an application.
- **Domain** – Type the name of a domain you want displayed.
- **Device** – Type the individual device name you want to report on.
- **User** – Enter the user name for which you want to see applications displayed.

- **Start Date** – Use the drop-down lists to select a start date and time for the report.
- **End Date** — Use the drop-down lists to select an end date and time for the report.

Creating Operational Reports

Operational Reports, unlike Application usage Reports, display information for devices in your environment as well as database-specific statistics.

Devices Not Collected

Select **Devices Not Collected** to generate a report detailing all devices not collected since a specific date.

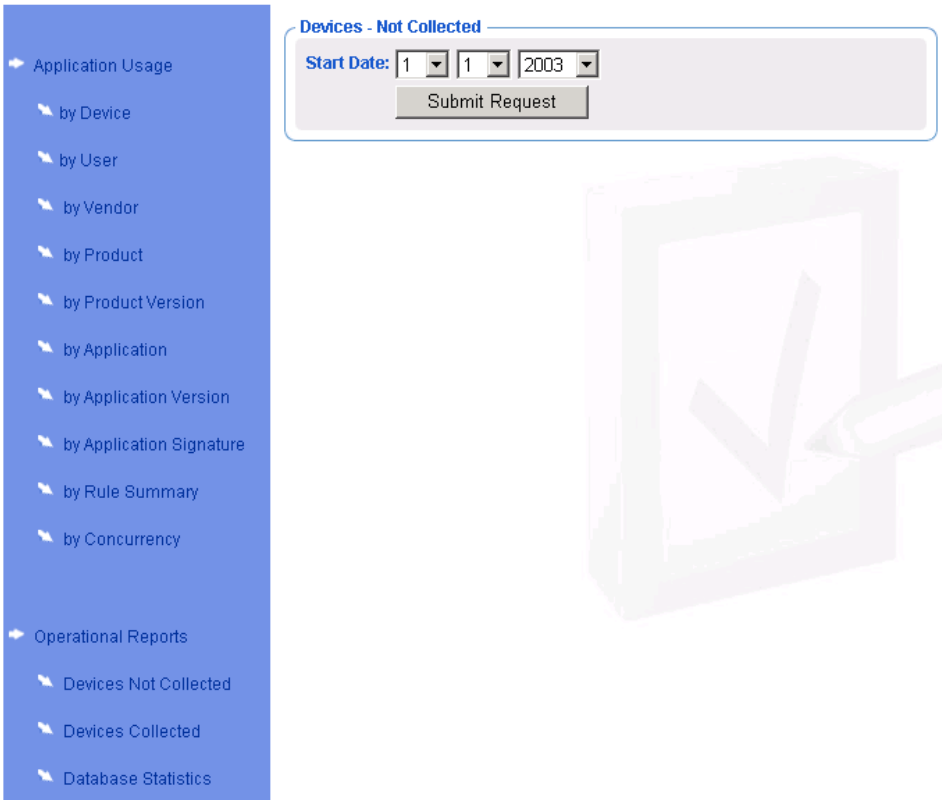


Figure 4.13 ~ Operation Reports devices not collected.

Enter a start date to collect and display any information for devices whose Usage data has not been collected and are defined in the Radia Usage Manager Knowledge Base.

Devices Collected

Select **Devices Collected** to generate a report detailing all devices that were collected during a time period you designate.

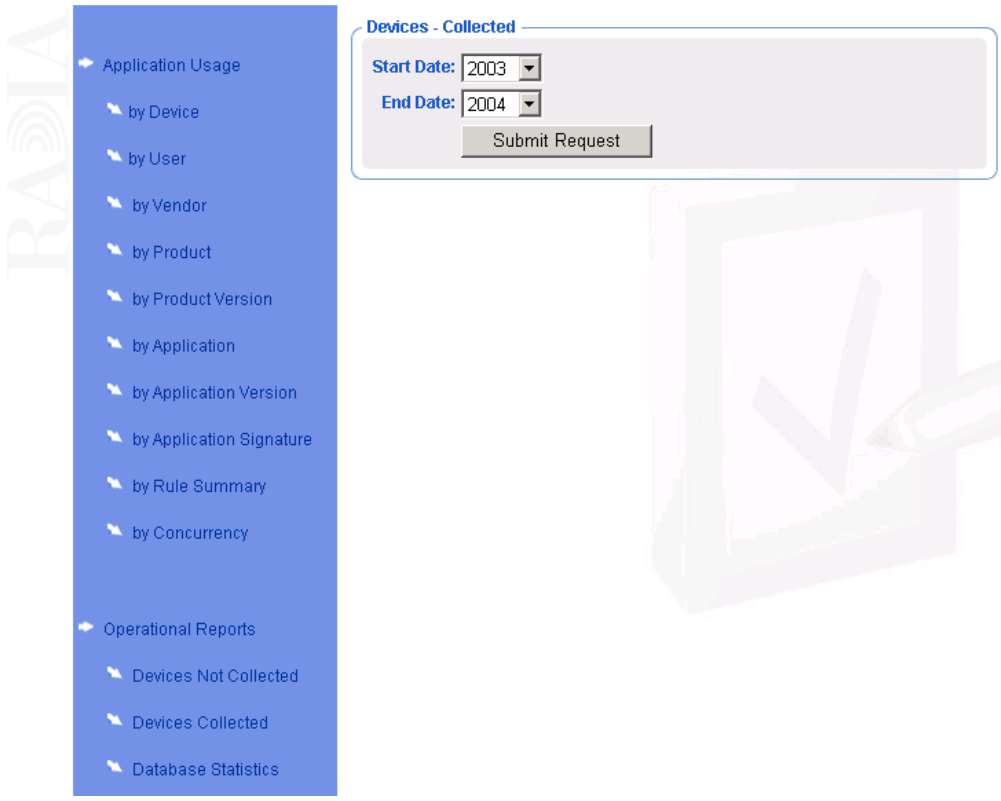


Figure 4.14 ~ Operation Reports devices collected.

Enter a start and end date to collect and display any information for all devices that were collected and exist in your enterprise.

Database Statistics

Select **Database Statistics** to generate a report detailing the current database statistics.

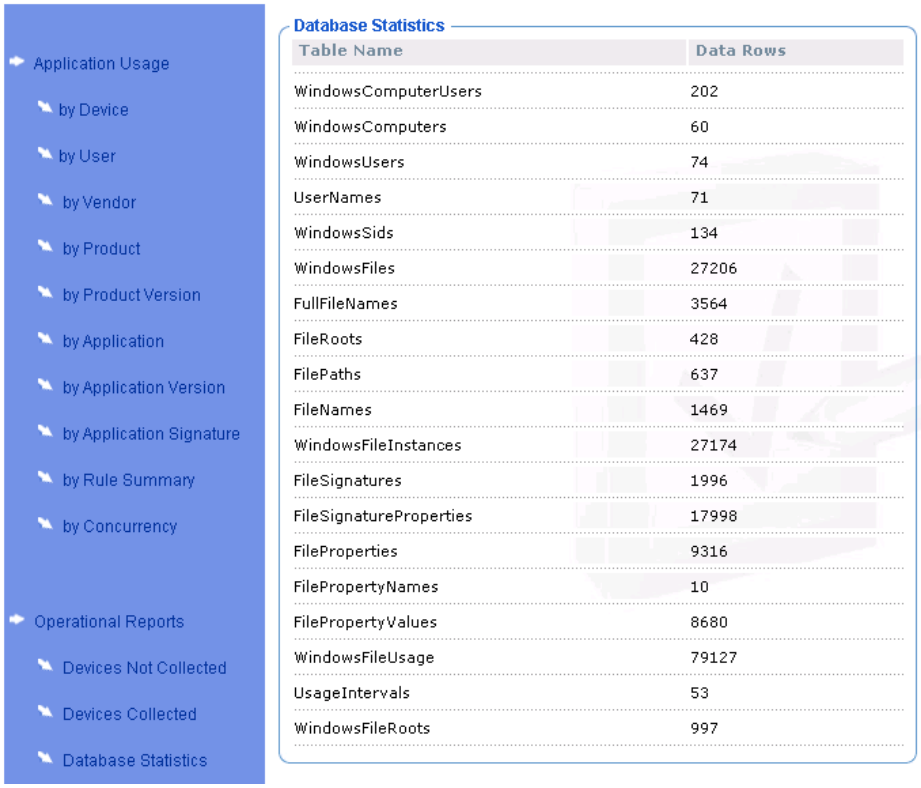


Figure 4.15 ~ Operation Reports database statistics.

Database Statistics displays a list of current database information.

Understanding Rules

Rule Criteria, Rules, Rule Sets, and Rule Set Groups are created and maintained using the Radia Usage Manager Rule Editor. Use this tool to create specific search criteria when generating usage monitoring reports.

A **Rule Criteria** is a specific attribute that is inherent to an application. For instance, if you want to define a rule that finds and displays all Microsoft Word applications, you would define the Rule Criteria as **Application** = *winword.exe* (the application that executes MS Word) and **Vendor** = *Microsoft*. Rule Criteria are then what are bundled together to form Rules.

If you want to create a more complex set of rules and criteria, create a group of Rules, called a Rule Set, then group Rule Sets together to form Rule Set Groups. These are the highest-level rule groupings available. Creating Rules and Rules Sets is described in *Chapter 5: Using the Radia Rule Editor* starting on page 117.

Examining Reports

After the reports are generated, you can use the built in HTML features to sort each list or find out more information about a specific record.

Sorting by Column Headings

The titles at the top of each heading are active links, allowing you to click each one to sort the data by the items in that column. Clicking the link again will sort the data in reverse order.

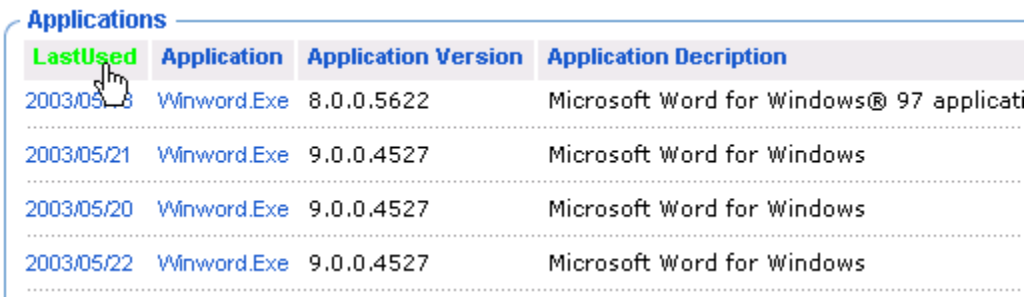
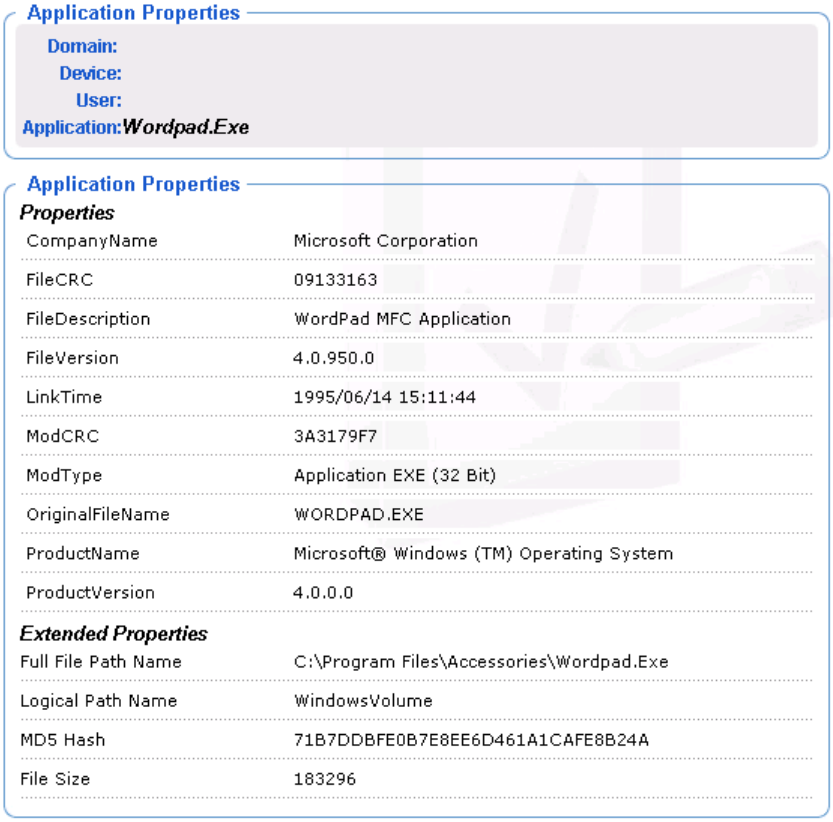


Figure 4.16 ~ Click on any column heading to sort data.

Retrieving More Information

Many of the records displayed will have active links allowing you to click on an item and reveal more information about that particular device, user, application, and so on.



Application Properties

Domain:
Device:
User:
Application: ***Wordpad.Exe***

Application Properties

Properties

CompanyName	Microsoft Corporation
FileCRC	09133163
FileDescription	WordPad MFC Application
FileVersion	4.0.950.0
LinkTime	1995/06/14 15:11:44
ModCRC	3A3179F7
ModType	Application EXE (32 Bit)
OriginalFileName	WORDPAD.EXE
ProductName	Microsoft® Windows (TM) Operating System
ProductVersion	4.0.0.0

Extended Properties

Full File Path Name	C:\Program Files\Accessories\Wordpad.Exe
Logical Path Name	WindowsVolume
MD5 Hash	71B7DDBFE0B7E8EE6D461A1CAFE8B24A
File Size	183296

Figure 4.17 ~ Click any available item to display more information.

You can also navigate to other summary report pages by clicking the links in the existing records. For example, after generating a Summary by Device report, click the **Users** link in any record to be transferred to the Summary by User page.

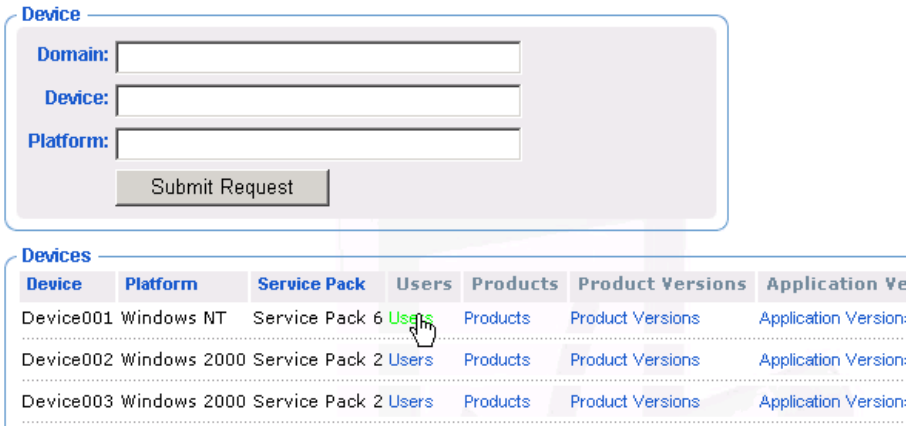


Figure 4.18 ~ Users link in Summary by Device report record.

Retrieving Record-Specific Information

Once a report is displayed, the **Navigate To** feature becomes available. Use the **Navigate To** drop-down list box to return specific information for any report record.

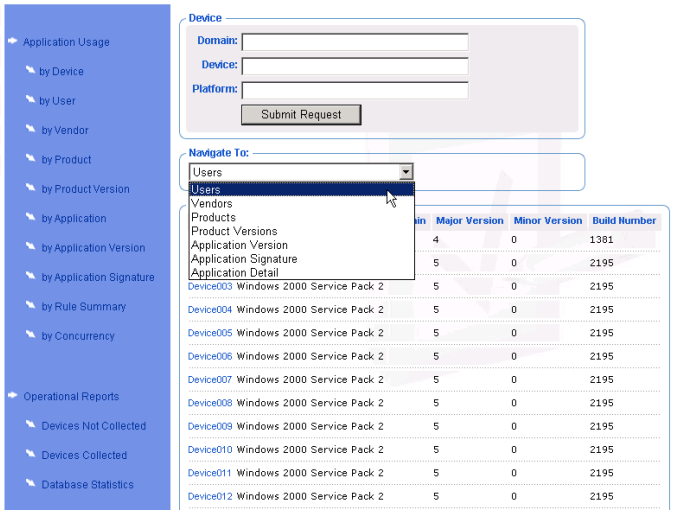


Figure 4.19 ~ Navigate To drop-down list.

Select an item from the list, and then select a report record.

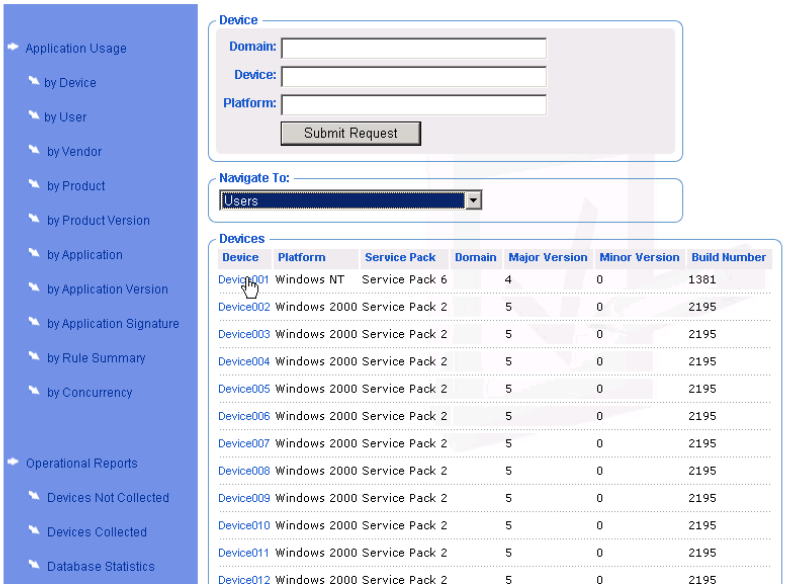


Figure 4.20 ~ Select a report record to display record-specific information.

A new report is generated in a new window, detailing all the related information for the record you selected.

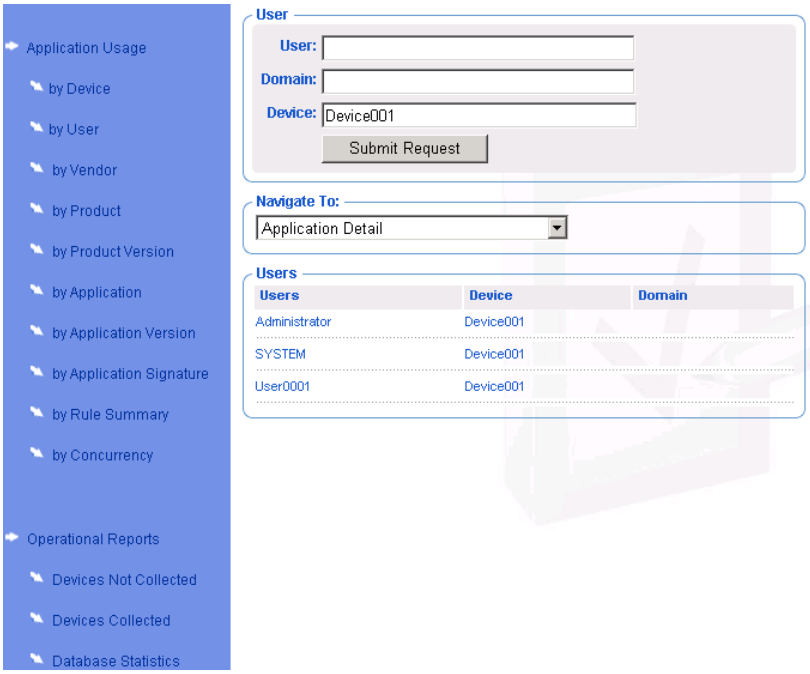


Figure 4.21 ~ New record-specific report.

Summary

- Select the type of report you would like to generate on the Usage report page.
- Customize the information displayed in each report using the available text boxes on each page.
- Click any individual link in a report to see more information.
- Search the database to help complete your report generator text boxes.
- Use the Navigate To drop-down box to return record specific information.

5

Using the Radia Rule Editor

At the end of this chapter, you will:

- Understand the Radia Rule Editor.
- Be able to understand and create Criteria, Rules, Rule Sets, and Rule Set Groups.

Using the Radia Rule Editor

Use the Radia Rule Editor to create specific search criteria to be implemented when you are generating your usage monitoring reports. Creating these criteria allow you to supplement the existing search options and create better reports based on your individual organization's needs. The Radia Rule Editor is installed as part of the Radia Usage Manager Administrator.

To access the Radia Rule Editor

1. From the **Start** menu, select **Novadigm → Usage Manager → Rule Editor**.

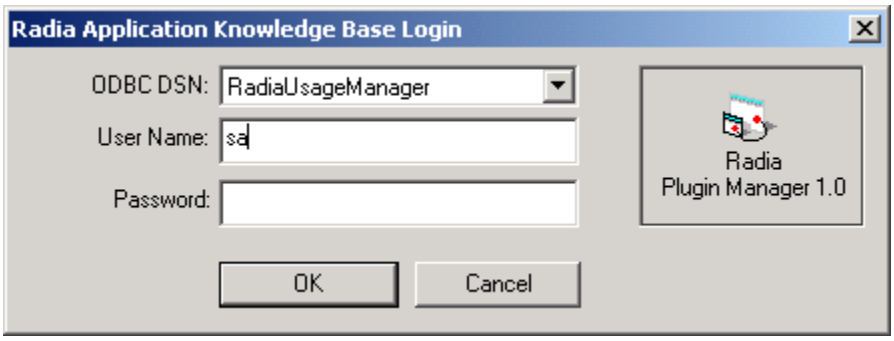


Figure 5.1 ~ Login to the Radia Rule Editor.

2. Select the name of the DSN you will be using and type your User Name and Password in the text boxes provided.
3. When finished, click **OK**.

The Radia Rule Editor consists of four tabs you can use to define rule criteria, rules, rule sets, and rule set groups.

Radia Rule Editor Search Function

After selecting criteria, rule, rule set, or rule set group, click the **Search** button near the bottom of the window to preview your query results. Query results are displayed in a table at the bottom of the Rule Editor window.

The search function can be used at any stage of the rule creation process.

Creating Criteria, Rules, Rule Sets, and Rule Set Groups

Use the Radia Rule Editor to create criteria, rules, rule sets, and rule set groups that can then be used when you generate usage reports. Once created, these rules and criteria will then be available in the **Include Rule** and **Exclude Rule** drop-down lists within the usage report generation pages.

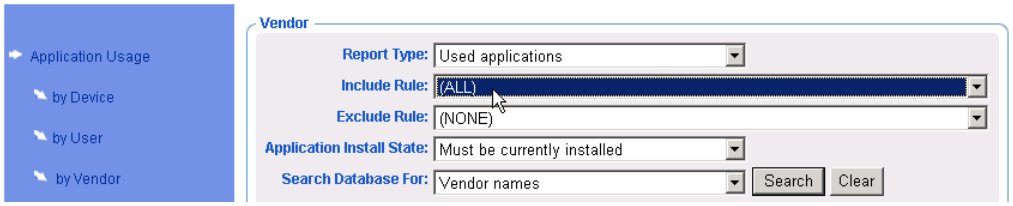


Figure 5.2 ~ Include Rule and Exclude rule drop-down lists on a usage report page.

Each process used to define criteria, rules, rule sets, and rule set groups is similar. Each tab allows you to either use an existing rule to search for records or create your own with any customizations you apply. Rules can be created as specific as you would like depending on the criteria you choose.

Operators AND versus OR

There are two types of criteria, rules, rule sets, and rule set groups you can create: AND and OR. Before creating the rule, decide which type you would like to create and select the appropriate operator from the **Operator** drop-down list.

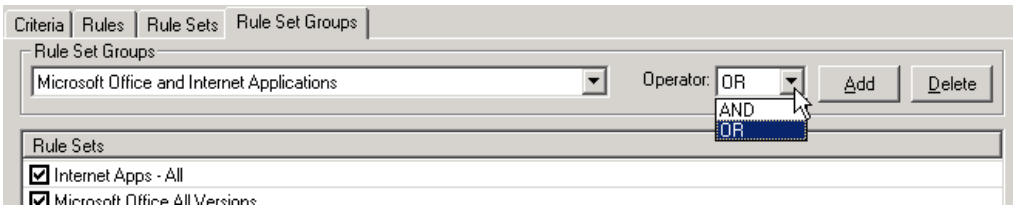


Figure 5.3 ~ Operator drop-down list.

Creating a criterion using the AND operator specifies that in order for a record to match that criterion, all of the properties specified must be true. For example, a criterion designed with

Vendor property	=	Equals Microsoft
Application property	=	Like WinWord
Operator	=	AND

will return only Microsoft Word records.

If the OR operator was selected in the above example, all applications with Vendor Microsoft will be returned.

The AND operator is most effective when creating criteria only. The OR operator is more appropriate for creating rules, rule sets, and rule set groups.

Criteria Tab

Use the Criteria tab to define specific application criteria you will use to display collected information when generating usage monitoring reports.

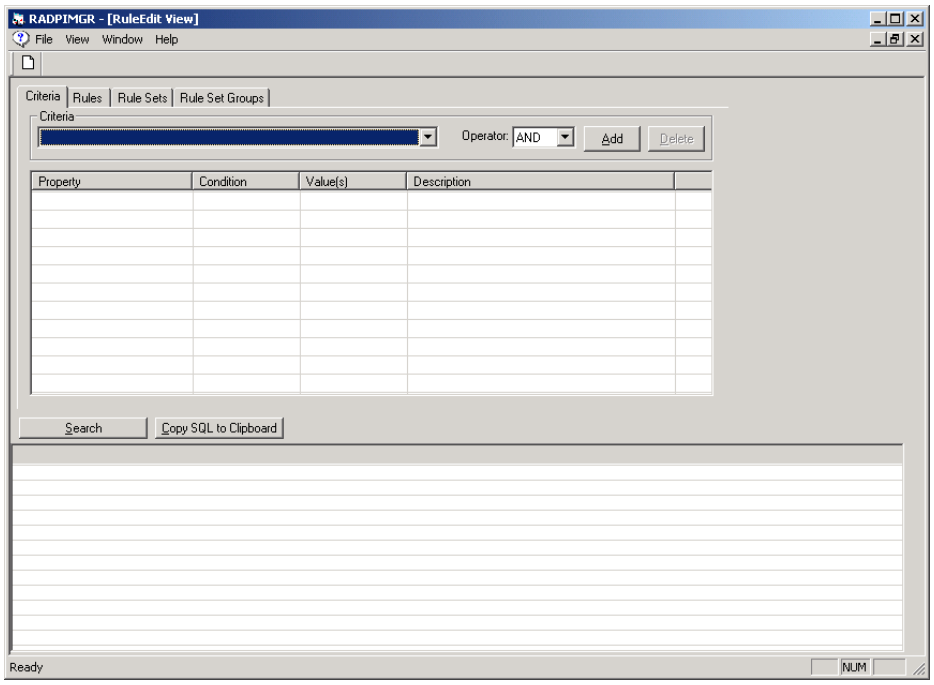


Figure 5.4 ~ Criteria tab.

Before you select application criteria, you can use the Criteria drop-down list to check if any of the existing applications can be used.

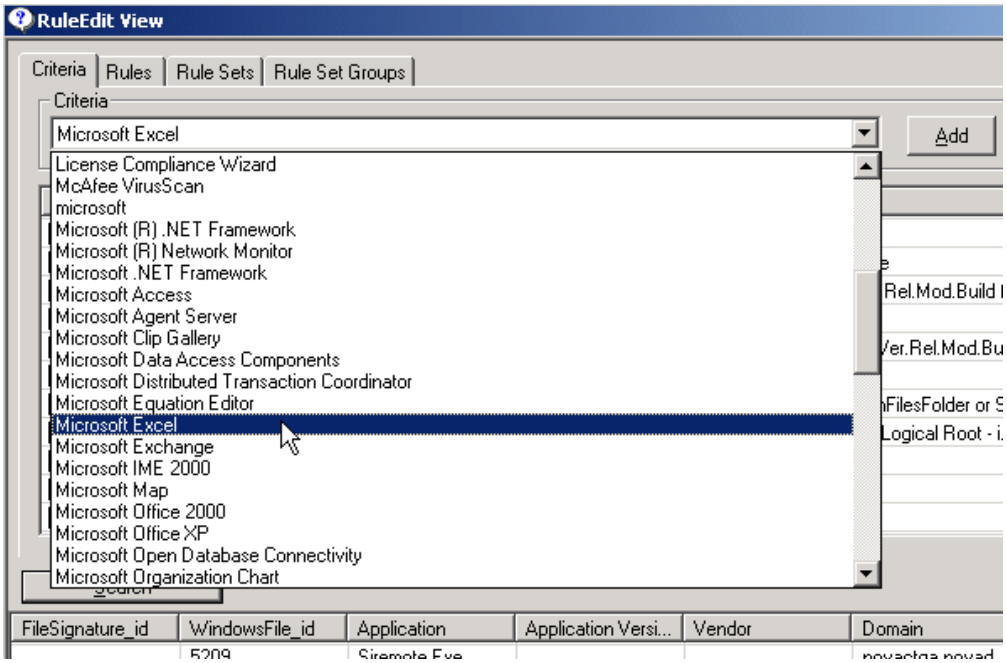


Figure 5.5 ~ Choose an existing application to define criteria.

Once you select an application from this list, check a Property box to add that to the Criteria.

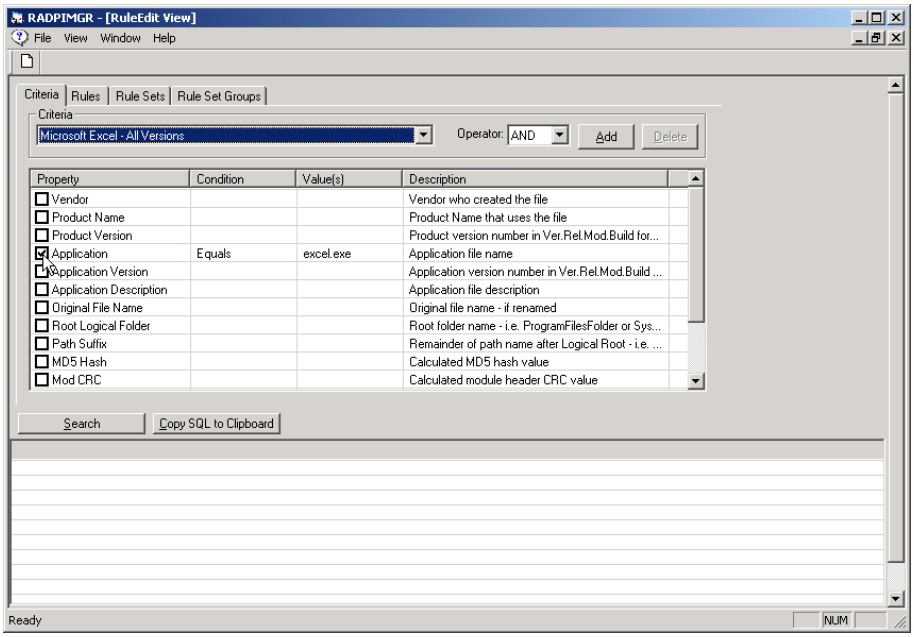


Figure 5.6 ~ Select a property to include in the criteria.

Double-click any row in the **Condition** or **Value** columns to add a condition and value to the criteria. As an example, the steps below describe how to create rule criteria where the Vendor property is equal to Microsoft.

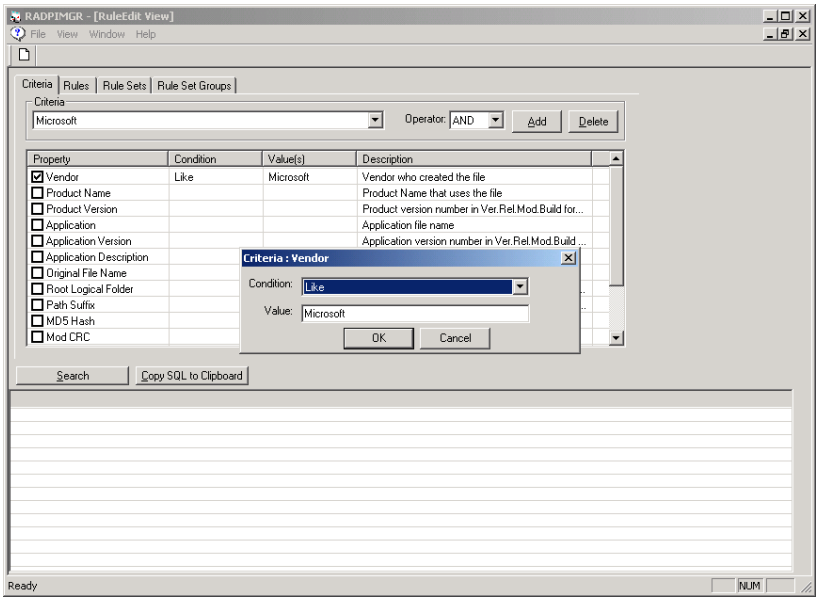


Figure 5.7 ~ Select a criteria Condition and Value.

To create Rule Criteria

1. To the right of the Criteria drop-down box, click the **Add** button to create new criteria. Enter a name for the criteria in the dialog box that opens.

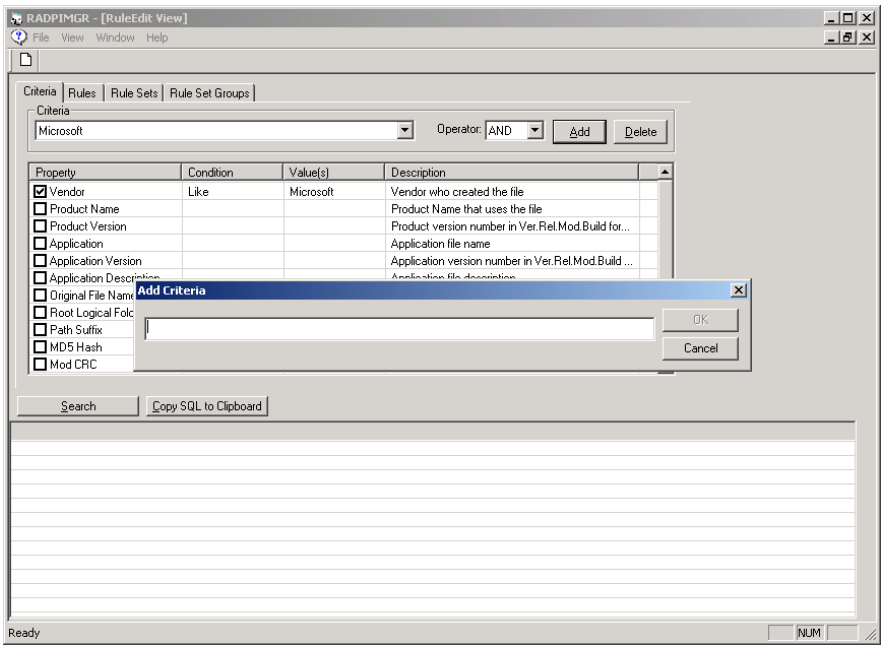


Figure 5.8 ~ Enter criteria name.

Note

Names are sorted in the report pages in ascending sequence so frequently used names should be prefixed with a character that places them at the top of the sort sequence.

2. Click **OK** to close the **Add Criteria** dialog box.
3. Double-click on the **Vendor** attribute row.
4. In the dialog box that opens, select **Equals** in the **Condition** text box.
5. In the **Value** text box, type **Microsoft**. Note that this value is used in a SQL command and must conform to SQL syntax rules.

Note

The typed text must conform to SQL Server query rules, for example, you can select the **LIKE** clause and type text such as **%Microsoft%,** to define a criterion for any application whose Vendor definition contains the character string **Microsoft**.

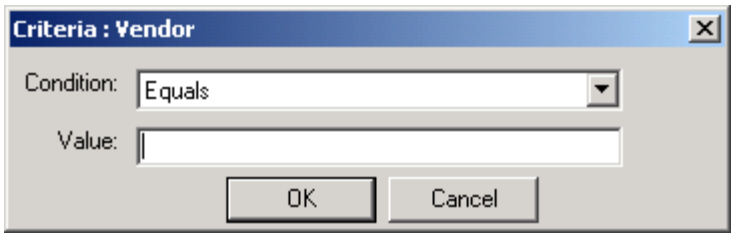


Figure 5.9 ~ Enter Condition and Value.

Note

The use of LIKE clauses with preceding % may cause lengthy search times during reporting. We strongly recommend that you use the EQUALS clause.

6. Test the criteria by clicking **Search** to retrieve all entries in the Radia Usage Manager Knowledge Base that match the criteria you defined. Entries are displayed in the table at the bottom of the window.

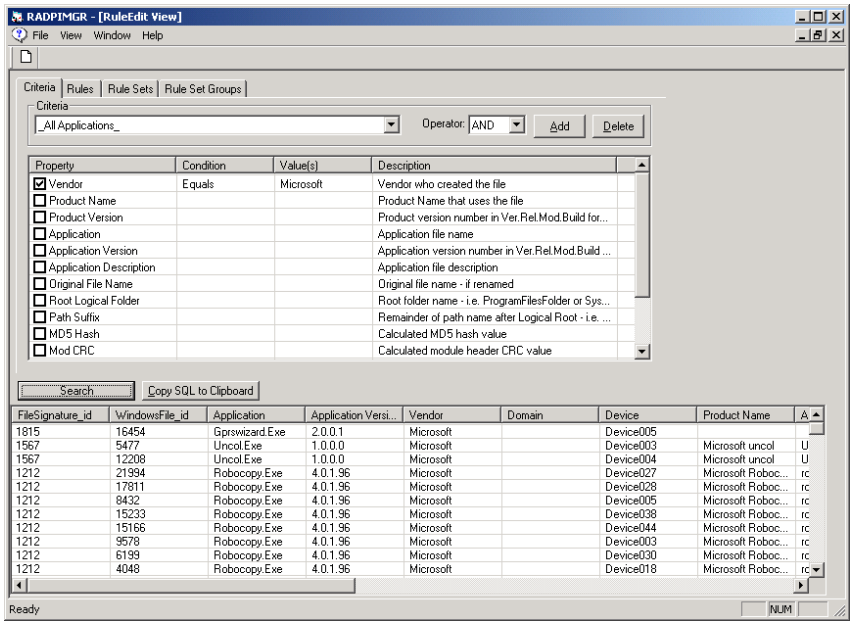


Figure 5.10 ~ Matching records are displayed in the table at the bottom of the Radia Rule Editor.

The new criterion is complete and ready to be used in any rules you generate.

Rules Tab

Rules are a combination of Rule Criteria. Use the **Rules** tab to define rules based on the criteria you selected in the **Criteria** tab.

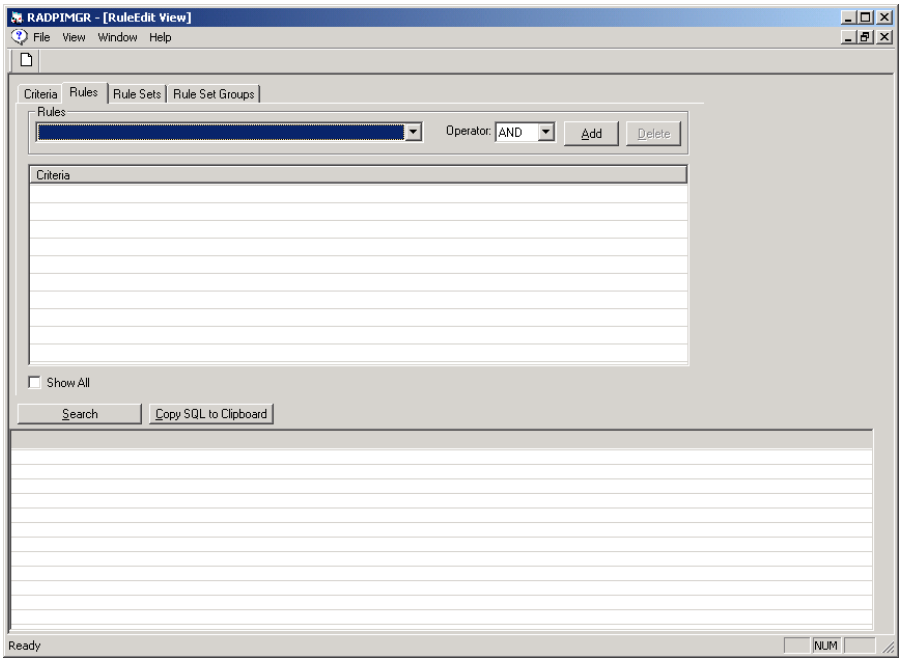


Figure 5.11 ~ Rules tab.

Use the Rules drop-down list box to select any default Rules. Once a Rule is selected, the Criteria that are part of that Rule are displayed.

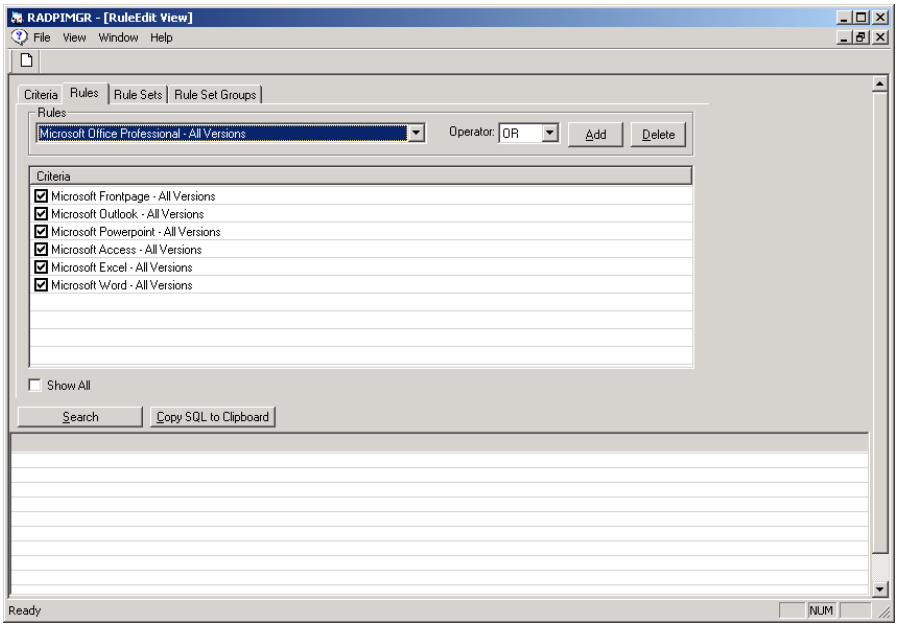


Figure 5.12 ~ Criteria for each rule is displayed.

To create a new Rule

1. Click **Add** to define a new Rule. Enter a name for the Rule in the dialog box that opens.

Figure 5.13 ~ Type a name for the new Rule.

2. Click **OK**.
3. Select any criteria you would like to include in the new Rule by clicking the check box to the left of the criterion name.

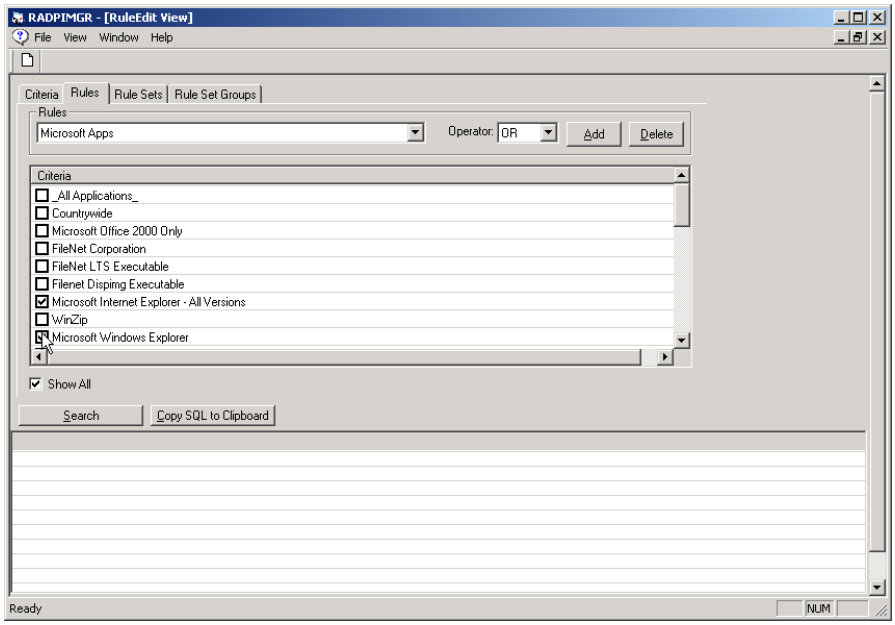


Figure 5.14 ~ Select the criteria to include in the Rule.

4. Test the Rule by clicking **Search**. All matching records are displayed in the table at the bottom of the Radia Rule Editor window.

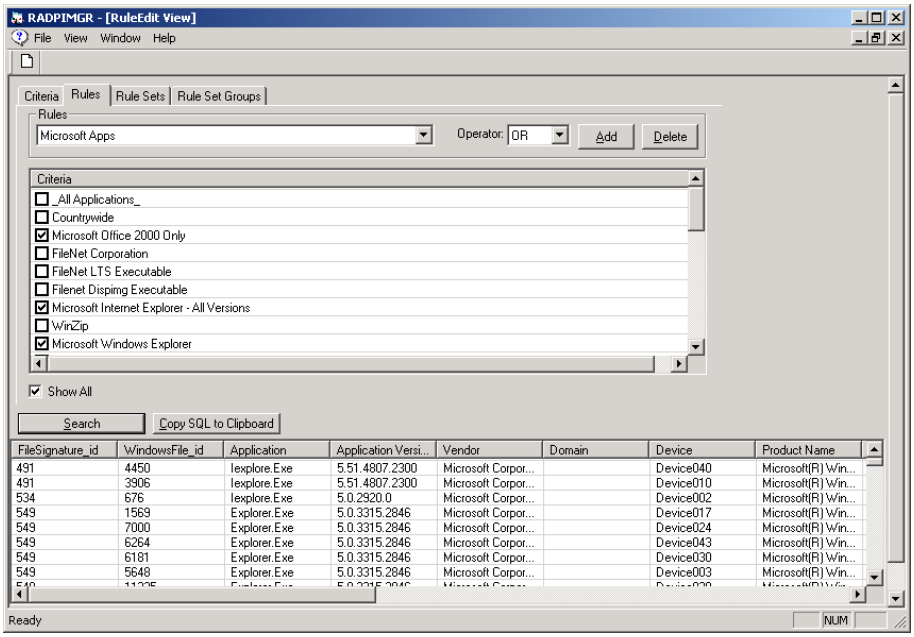


Figure 5.15 ~ Matching records are displayed in the table at the bottom of the Radia Rule Editor.

The new Rule is complete and ready for inclusion in any Rule Sets you generate.

Rule Sets Tab

A Rule Set is a grouping of Rules. Use the **Rule Sets** tab to define which rules you would like to combine to form a Rule Set instance.

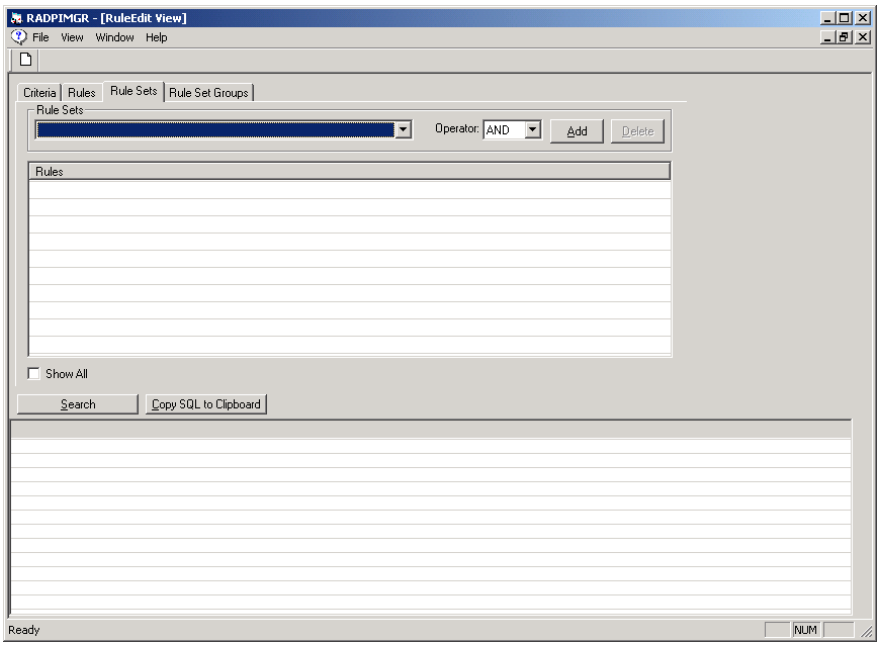


Figure 5.16 ~ Rule Sets tab.

Use the Rule Sets drop-down list to select any existing Rule Sets. Once a Rule Set is selected, the Rules that make up that Rule Set are displayed.

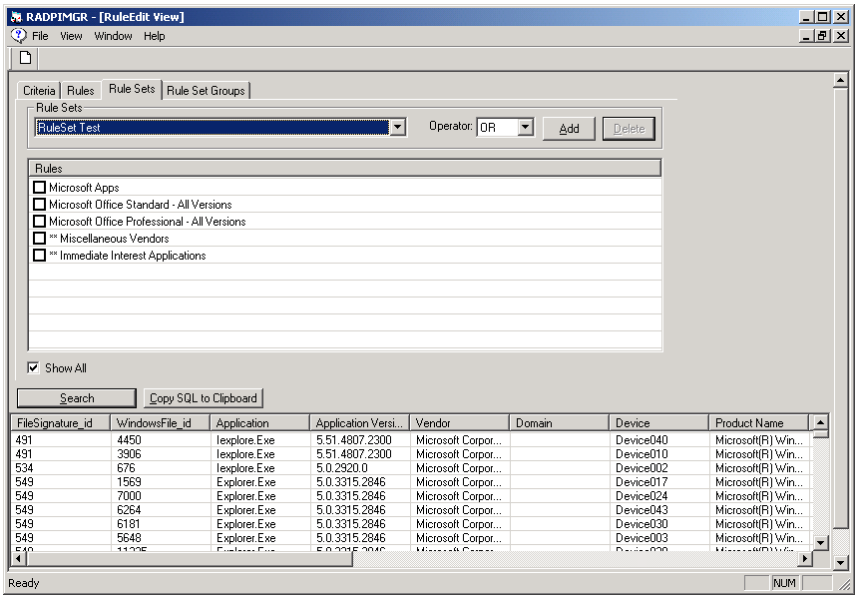


Figure 5.17 ~ Rules included in the Rule Set are displayed.

To create a new Rule Set

1. Click **Add** to define a new Rule Set. Enter a name for the Rule Set in the dialog box that opens.

Figure 5.18 ~ Type a name for the new Rule Set.

2. Click **OK**.
3. Select any Rules you would like to include in the new Rule Set by clicking the check box to the left of the Rule name.

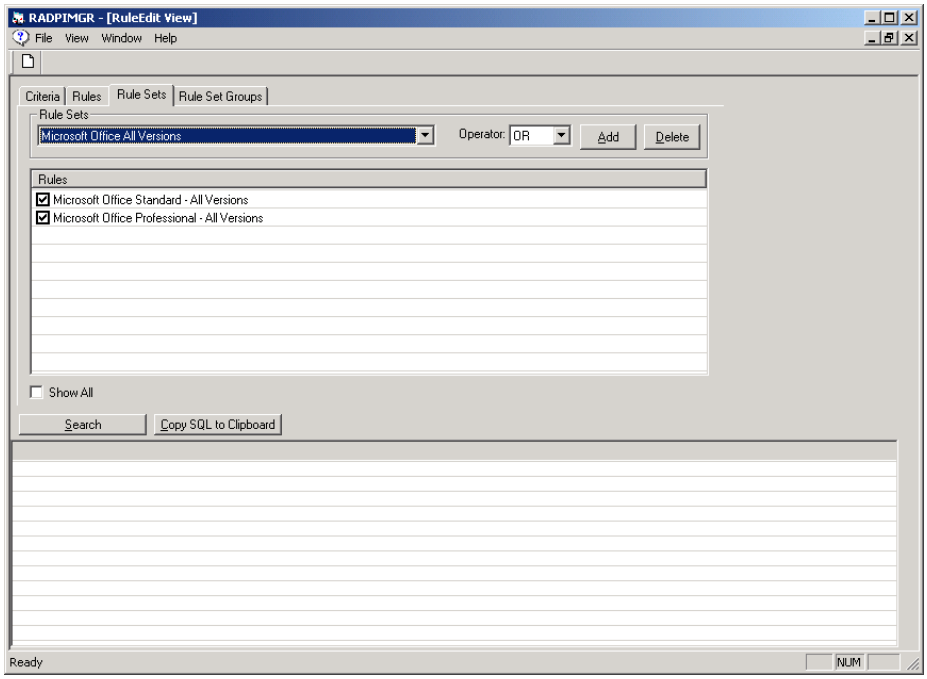


Figure 5.19 ~ Select the Rules to include in the Rule Set.

4. Test the Rule Set by clicking **Search**. All matching records are displayed in the table at the bottom of the Radia Rule Editor window.

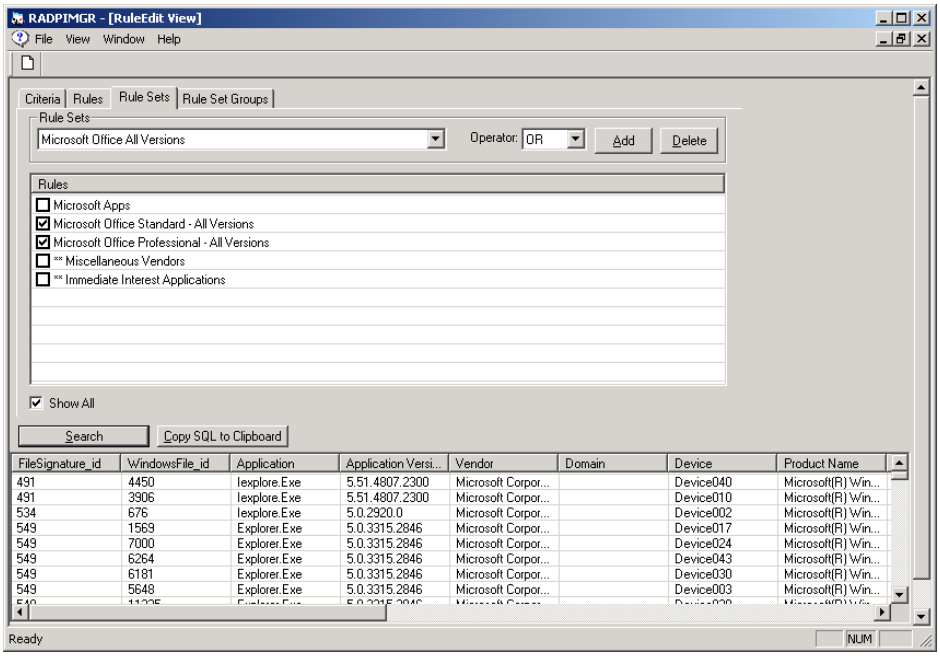


Figure 5.20 ~ Matching records are displayed in the table at the bottom of the Radia Rule Editor.

The new Rule Set is complete and ready for inclusion in any Rule Set Groups you may generate.

Rule Set Groups Tab

If you want to combine multiple Rule Sets, create a Rule Set Group instance.

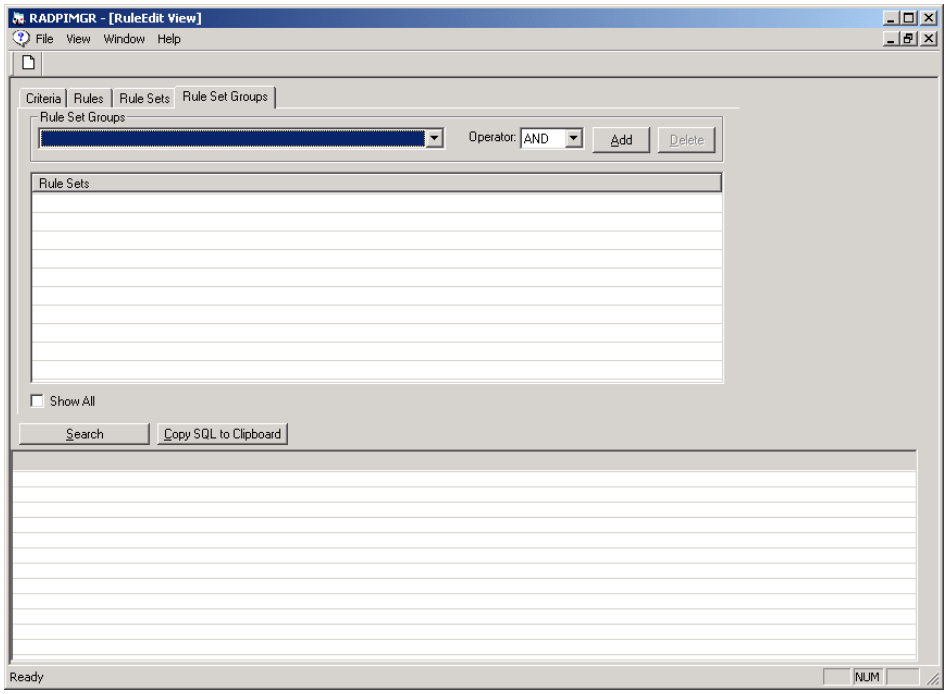


Figure 5.21 ~ Rule Set Groups tab.

Use the Rule Set Groups drop-down list to select any existing Rule Set Groups. Once a Rule Set Group is selected, all of the Rules Sets that make up that Rule Set Group are displayed.

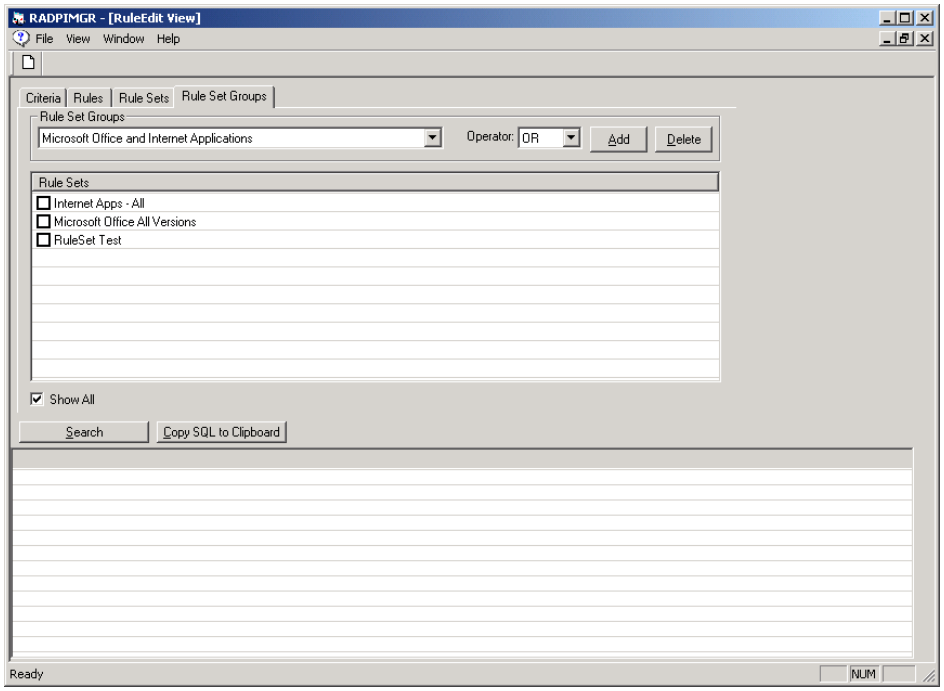


Figure 5.22 ~ Rule Sets included in the Rule Set Group are displayed.

To create a new Rule Set Group

1. Click **Add** to define a new Rule Set Group. Enter a name for the Rule Set Group in the dialog box that opens.

Figure 5.23 ~ Type a name for the new Rule Set Group.

2. Click **OK**.
3. Select any Rule Sets you would like to include in the new Rule Set Group by clicking the check box to the left of the Rule Set name.

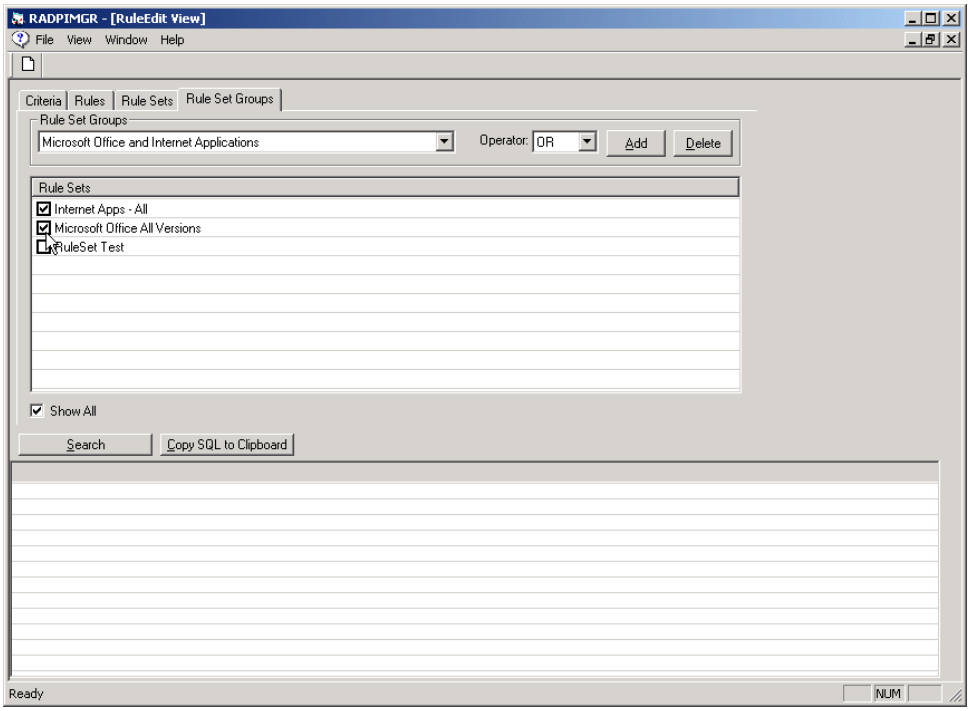


Figure 5.24 ~ Select the Rule Sets to include in the Rule Set Group.

4. Test the Rule Set Group by clicking **Search**. All matching records are displayed in the table at the bottom of the Radia Rule Editor window.

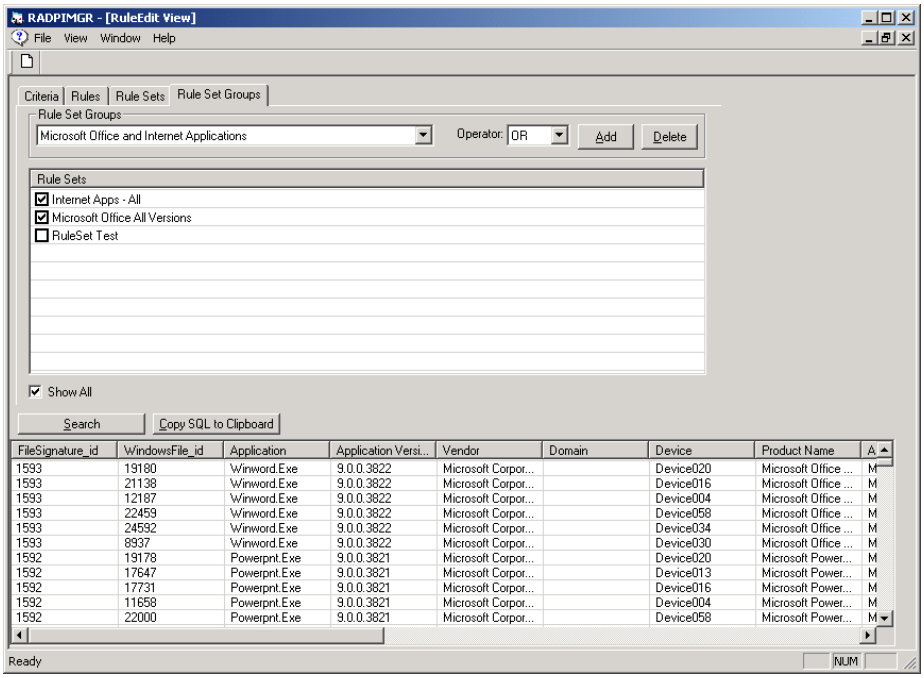


Figure 5.25 ~ Matching records are displayed in the table at the bottom of the Radia Rule Editor.

The new Rule Set Group is complete.

Now that you've finished creating criteria, rules, rule sets, and rule set groups, you can generate reports based on your own specifications using the report generator options **Include Rule** and **Exclude Rule**. For more information, refer to the chapter on generating reports in this book.

Summary

- Use the Radia Rule Editor to create your own criteria, rules, rule sets, and rule set groups.
- Use these customized rules to generate reports.

Implementing the Radia Usage Manager in a Non-Radia Environment

The Radia Usage Manager client can operate independently of a Radia environment to enable organizations to determine priorities for application or operating system migrations.

Included with the Radia Usage Manager media are specific configuration files you can use to configure and install your Radia Usage Manager client. These files are located in your Radia Usage Manager media in the \Client Install\Setup\ directory and are described in *Table A.1 ~ Radia Usage Manager Files* below.

Table A.1 ~ Radia Usage Manager Files

Filename	Description
UMSetup.exe	Client installation program
UMSetup.ini	Client installation configuration file
USDBColl.ini	Collection configuration file

Additionally, sample batch files are included in the \Samples\RUM Client – Batch Install\ directory that will help streamline the process of installing your Radia Usage Manager client and

collection parameters. These files are described in *Table A.2 ~ Client Batch Install Sample Files* below.

Table A.2 ~ Client Batch Install Sample Files

Filename	Description
rumclient.bat	Installs the Radia Usage Manager client and collection parameters.
collect.bat	Issues a usage data collection request to send current usage data to the database.

Radia Usage Manager Configuration: Non-Radia Infrastructure

To configure your Radia Usage Manager components for this environment, refer to *Chapter 2: Configuring Your Environment* starting on page 27. Once your Radia Usage Manager components are configured, you are ready to configure and install the client and collection parameters.

Configuring the Radia Usage Manager Client

The Radia Usage Manager client is installed by either a Radia service or independently through any distribution methodology. The Radia Usage Manager is installed by a setup executable and can be configured through the UMSetup.ini file residing in the same directory as the UMSetup.exe. Alternatively, the installation may be configured using command line arguments with the following names and values:

```
UMSETUP.EXE SerialNumber=RA-00-0000-00000000-0000-0000-0000 UM_InventoryInterval=1
```

Note

Non-Radia implementation does not support filters inherently. Specific Registry keys must be configured.

UMSetup.INI File Configuration Parameters

The configuration file can be customized for different sets of client machines. *Table A.3 ~ UMSetup.INI Configuration Parameters* below, describes these options.

Table A.3 ~ UMSetup.INI Configuration Parameters

Parameter	Description
NovadigmFolder = [ProgramFilesFolder]\Novadigm\	Defines where the Radia Usage Manager client binaries are to be installed on the client machine. These must be stored on a local drive only. They cannot be stored on a network drive. **Note:** If Radia Extensions for Windows Installer is already installed on the machine, this path will be overridden to be the installation path used by this product.
SerialNumber =	Defines the license key serial number for Usage Profiling. This is provided by HP.
UM_LocalPath = [ProgramFilesFolder]\Novadigm\Application Extensions\Usage Manager\	Defines where the active usage monitoring and history files are stored on the client machine. These must be stored on a local drive only. They cannot be stored on a network drive.
UM_Enabled = 0 or 1	Defines whether application usage profiling is installed as **active**. If set to 0, then application usage is not monitored for any application.

Table A.3 ~ UMSetup.INI Configuration Parameters

Parameter	Description
UM_EnableFocusTime = 0 or 1	Defines whether application focus time is monitored and reported on. If set to 0, then focus time is not monitored.
UM_InventoryInterval = 0 | 1 | 2 | 3 representing No Inventory | Monthly | Weekly | Daily	Defines when the current executable inventory for the machine is run.
UM_InventoryDayofMonth = 1 - 31	Defines the relative day of the month that the current executable inventory should be run.
UM_InventoryDayofWeek = 1 - 7	Defines the relative day of the week that the current executable inventory should be run. 1 = Sunday, 7 = Saturday.
UM_InventoryHour = 00 – 23 where 13 is 01:00 pm	Defines what hour of the day the current executable inventory for the machine is run.
UM_InventoryMinute = 00 – 59	Defines what minute of the hour the current executable inventory for the machine is run.
UM_ObfuscateComputer = 0 | 1	Obfuscate computer name to conform to privacy laws. 1 = Yes 0 = No
UM_ObfuscateUser = 0 | 1	Obfuscate user name to conform to privacy laws. 1 = Yes 0 = No
UM_ObfuscateDomain = 0 | 1	Obfuscate domain name to conform to privacy laws. 1 = Yes 0 = No
UM_ObfuscateUsage = 0 | 1	Obfuscate usage information to conform to privacy laws. 1 = Yes 0 = No

The Radia Usage Manager Client Install

The default _BASE_INSTANCE_ definition for the Radia Usage Manager defines default configuration options when installing the Radia Usage Manager. Services that install and maintain the Radia Usage Manager execute scripts that by default, perform the following actions with regard to the Service options:

Note

Script changes may modify the processing options and these may not be reflected in this documentation.

Table A.4 ~ Execute Scripts	
Function	**Command Line**
Create	UMsetup.exe (installs client)
Verify	Umsetup.exe /v (verifies client)
Update	UMsetup.exe (updates client)
Delete	UMsetup.exe /x (un-installs client)

Removing the Radia Usage Manager Client

Use UMSetup.exe with the /x command-line argument to remove the Radia Usage Manager client, for example:

```
C:\Program Files\Novadigm\Setup\Bin\UMSETUP.EXE /x
```

Copying Required Files

Once the Radia Usage Manager client is installed, three files must be copied to the same directory where you installed the client, for example, C:\Program Files\Novadigm. These files are included with the Radia Usage Manager media and are as follows:

- **gzip.exe**
  Located in the \Client Install\Setup\GZIP directory. Used by the Radia Usage Manager for compressing and decompressing data during transfer to and from a SQL database.
- **nvdkit.exe**
  Collection of components used by the Radia Usage Manager. Located in the \Client Install\Setup\bin\ directory.
- **hide.exe**
  Hides the nvdkit.exe user interface from the process. Located in the \Client Install\Setup\bin\ directory.

Collecting Data

Collect usage data by first defining collection parameters within the file USDBCOLL.INI and then installing that collection. The collection parameters are installed when UMSETUP.EXE is executed.

Configuring Collection Parameters

The collection configuration file, USDBCOLL.INI, is used to define your usage data collection. *Table A.5 ~ Collection Configuration File* on page 146 describes each available configuration section.

Table A.5 ~ Collection Configuration File (USDBColl.ini)	
Parameter	**Description**
DatabaseName	Name of your database.
CollectionPoint	The IP address of the associated Radia Integration Server and port number.
CollectionRandom	Randomizes collection process to occur anytime from the start time through a randomly generated number of minutes later.
CollectionInterval	When to process collections, monitor (no collection), monthly, weekly, daily.
CollectionDayOfMonth	Day of the month to process collection.
CollectionHour	Hour to begin data collection process.
CollectionMinute	Minute to begin data collection process.

Configuring Database Specific Collection

The executable **usdbcoll.exe** initiates the data collection process and can be launched by a Radia Service or otherwise. Two command-line parameters are passed that indicate the SQL database specific configuration parameters and the filter rules to be applied when copying the information from the inventory and active monitoring files to the database specific collection file, for example:

```
USDBCOLL.EXE /i DatabaseName=SQL_database_name
```

See Table B.6, below, for a description of the USDBCOLL.EXE parameter values.

Re-collecting Usage Data

In the event you need to collect lost or damaged usage data, USDBCOLL.EXE supports the recollection of data with the /r parameter. To initiate recollection, use the /r parameter and define the **RecollectMode** value on the command line. For example:

```
USDBCOLL.EXE /r RecollectMode=1 DatabaseName=MyDatabase
```

See *Table A.6 ~ USDBCOLL.EXE Command Line Parameters* below, for a description of the different RecollectMode values.

Table A.6 ~ USDBCOLL.EXE Command Line Parameters	
Parameter	**Description**
DatabaseName=*UniqueSQLDatabaseName*	Defines a unique SQL database name for collection purposes.

Table A.6 ~ USDBCOLL.EXE Command Line Parameters

Parameter	Description
RecollectMode=*Value*	Defines the type of data to be re-collected. Value can be either 1,2, or 3 as defined below. 1 – **Signatures** - all file signature data is re-collected for all files that meet the collection filter. This includes the data for the FileSignatures and FileSignatureProperties tables. 2- **Files** - all Windows file data is recollected for all files that meet the collection filter. This includes all of the data collected in Signature mode as well as data for the WindowsFiles and WindowsFileInstances tables. 3 – **Usage** - all Windows file usage data is re-collected for all files that meet the collection filter. This includes all of the data collected in File mode as well as data for the WindowsFileUsage table.

Installing the Radia Usage Manager Client and Collection Parameters

Once you've configured your Radia Usage Manager client and configuration parameters using the two .ini files, you are ready to install the components to your client computers.

A sample batch file, **rumclient.bat**, is supplied with the Radia Usage Manager media in the \Samples\RUM Client – Batch Install\ directory.

This file will install the Radia Usage Manager client as well as the collection parameters you defined within each .ini file.

Once the Radia Usage Manager client and collection parameters are installed, refer to *Chapter 4: Generating Usage Reports* starting on page 83 to learn about generating reports to view your usage data.

Glossary

Application Manager

See *Radia Application Manager*.

applications

Also called software, data, or services.

Applications are one type of content that Radia can manage on subscriber computers. Use the Radia Publisher to create packages of data to be managed on your subscribers' computers.

attribute

Also called *field, variable,* or *property*.

An **attribute** is a single, descriptive data item in a class. The class template contains a definition (e.g., the name, data type, description, and length) for each attribute that makes up the class. Class instances contain a set of attributes and each attribute contains a value.

attribute property

An **attribute property** controls some aspect of how an attribute is processed on the Radia Configuration Server and client computer. Each attribute defined in a class template has a set of Radia Configuration Server properties and a set of client properties.

client computer

A **client** computer is a subscriber's computer that has the Radia Client software installed on it.

instance

Also called *class instance*.

An **instance** is a Radia Database object containing a specific occurrence of a class. This is analogous to a row in a relational data table or a record in a traditional flat file. The attributes of an instance contain the data describing one specific entity of that class.

Management Portal

See *Radia Management Portal*.

method

A **method** is a program that performs functions that are meaningful in the context from which they are called.

Methods can be written in REXX or in a language that produces an executable that can validly run on the platform where it is invoked. The HP-supplied REXX run-time environment interprets REXX methods.

Client methods run on the subscriber's computer, while Radia Configuration Server methods run on the Radia Configuration Server computer.

object

An **object** is a data structure containing variables stored in a file with an .EDM suffix on the client computer. An object can consist of one or more instances. Each instance contains the same set of variables. The values held in the variables can vary from instance to instance.

Use the Radia Client Explorer to view, edit, or create objects.

preloading

Preloading is the process of loading the application to be distributed before any clients request the software.

Radia Application Manager

The **Radia Application Manager** (radia_am.exe) is the Radia Client that manages mandatory services. The systems administrator uses the Radia System Explorer to specify the services that the Radia Application Manager manages on the subscriber's computer. No user interface is available.

Radia Client Explorer

The **Radia Client Explorer** can be used to view or edit local objects, or create new objects. You can also use the Radia Client Explorer to view objects located on a file server or on other computers to which you are connected via a local area network (LAN).

Radia Configuration Server

Also called *Active Component Server* or *Manager*.

The **Radia Configuration Server** distributes applications to client computers. It maintains the Radia Database, which stores information that the Radia Configuration Server needs to manage digital assets for distribution to client computers.

Radia Database

The **Radia Database** stores all of the information necessary to manage digital assets on a client computer, including:

- The software and data that Radia distributes.

- The "desired state" of each client computer with respect to the managed content.
- The policies determining which subscribers can subscribe to which packages.
- Security and access rules for administrators.

Use the Radia System Explorer to manipulate the Radia Database.

Radia Management Portal

The **Radia Management Portal** is a core Radia product, used to manage many different Radia assets.

Radia Manager

See *Radia Configuration Server*.

Radia Service

A set of digital assets managed as a Radia unit.

Radia Software Manager

The **Radia Software Manager** (radia_sm.exe) is the Radia Client used to manage optional services. The systems administrator uses the Radia System Explorer to specify the services that are available to the subscriber.

The subscriber installs and manages services that are available from the Radia Software Manager user interface (Service List).

Radia Staging Requestor

The **Radia Staging Requestor** resides on the client computer, and communicates with the Radia Staging Server to retrieve data from, and supply data to, the Radia Staging Server.

Radia System Explorer

The **Radia System Explorer** is used to manipulate the contents of the Radia Database.

resource

Also called *file*.

A **resource** is a single component that is bundled into a package. Examples of resources are files, desktop links, and sets of registry keys.

REXX

Radia **REXX** is an interpreted language that provides a simple way to customize various aspects of Radia processing.

service

Also called a software application, application, or software.

A **service** is a group of related packages.

Software Manager

See *Radia Software Manager*.

STAGER instance

The **STAGER** instance in the Radia Database contains information necessary for the client to connect to the Radia Staging Server.

Staging Requestor

See **Radia Staging Requestor**.

subscriber

A **subscriber** is the person who uses managed applications on a client computer.

System Explorer

See *Radia System Explorer*.

variable

A **variable** is a piece of named storage that contains a changing value. The variable's value forms a part of the client's resolved distribution model and can influence the resolution process through messaging or symbolic substitution.

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