

**Tivoli.** *Software Usage Analysis*  
*Version 1.3*

*Installation and  
Configuration Guide*





**Note:** Before using this information and the product it supports, read the information in Notices.

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## Part One

# Introduction

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The Tivoli Endpoint Manager for Software Usage Analysis tool is an application used to identify under-utilized software, track software usage patterns and trends, and detect over-used software licenses to maintain compliance with license agreements.

This *Installation and Configuration Guide* is intended to be a setup guide for IT managers and system administrators to install and configure the Software Usage Analysis (SUA) application. Specifically, it includes step-by-step instructions for deploying inventory tasks using the Tivoli Endpoint Manager Console, installing and configuring the SUA web application, and populating the SUA Asset Repository. This Guide also details system requirements for each application component, and provides licensing and installation instructions to enable you to deploy SUA in your environment.

End users of the SUA application should refer to the [SUA User's Guide or Quick Start](#) documents for standard operating procedures.

**Note:** *If you install SUA Version 1.3 and you already have a previous version installed on your server, check the Upgrading section in the Appendix of this document for specific guidelines.*

## Terminology

The following is a list of terms common to the SUA application. Check the Tivoli Endpoint Manager [Knowledge Base](#) articles for any terms not listed here.

**Agent or Client** - Tivoli Endpoint Manager Clients, also called Agents, are installed on every computer that you want to manage under Tivoli Endpoint Manager. They access a collection of messages that facilitate the management of the computer. The Tivoli Endpoint Manager Client can then implement corrective actions received from the Tivoli Endpoint Manager Console through the Tivoli Endpoint Manager Server.

**Ambiguous Software** – Software is considered ambiguous when its executable file resembles another file in the system.

**Console** - The Tivoli Endpoint Manager Console ties several components together to provide Administrators with a system-wide view of all computers in a network, together with their configurations. It allows an authorized User to distribute fixes to a given computer without impacting any other networked computers.

**Dashboard** - The Tivoli Endpoint Manager Console contains dashboards, which provide the User with quick and convenient view of the most common information and actions.

**Datasource** - A datasource is a server that manages your Tivoli Endpoint Manager deployment. It holds all the data required to manage your computers, including the results of the SUA tasks and analyses inventory results. You will need to extract key inventory data from the datasource and place it in the SUA database for inventory reporting.

**Definitive Package** – A definitive package is a string of data that identifies the presence of software. A definitive package, which does not need an executable listed in the catalog, is the primary method for identifying the presence of software on a computer.

**Domain** – A collection of network devices belong to a domain, which is an administrative space managed according to common characteristics of the members.

**End Point** - An endpoint, which can be a server, desktop, workstation, mobile device, or laptop, is a device on your network that might or might not have the Tivoli Endpoint Manager Client or agent installed on it.

**Package** – A package is an artifact that serves as a tie breaker to help distinguish the difference between two executables that look alike. The two types of packages are regular packages and definitive packages.

**Server** - Servers coordinate the flow of information to and from individual computers and stores the results in the databases.

**Site** - A site is a collection of instructions that Tivoli Endpoint Manager refers to as 'content', which can be deployed to Clients to detect configuration and implementation corrective actions. This includes Fixlets, tasks, dashboards (html code installed on a Tivoli Endpoint Manager Server), wizards, applications, executables, and analyses.

## System requirements

- The SUA application must be installed on a Microsoft Windows 2003 Server (32-bit or 64-bit) or a Microsoft Windows 2008 server (32-bit or 64-bit). This is your target application server.
- Tivoli Endpoint Manager Server version 7 must be available in your environment. The Tivoli Endpoint Manager SUA application can be installed on the same server, or on a separate server.
- SQL Server 2005 or 2008 (32-bit or 64-bit) with TCP/IP must be available in your environment. This server can be on the same computer as the SUA application or on a separate server. You can use the same database server used for the Tivoli Endpoint Manager Server, or a separate database server, depending on the size of your deployment and available hardware resources. This version of SUA supports all editions of SQL Server 2005 and 2008.
- SQL Server Browser is needed if you are using a named instance rather than the default instance of SQL Server. It is also needed by the Configurator to enumerate named instances in the server's combo box on the SQL credentials panel.



### SQL Server Required Components

Component	Required by SUA
SQL Server 2005 or 2008	Yes
SQL Server Active Directory	No
SQL Server Agent	No
SQL Server Browser	Yes
SQL Server Full Text Search	No
SQL Server VSS Writer	No

- Users and Administrators of the SUA application must use Internet Explorer version 7 or FireFox version 3 (or later versions) and Adobe Flash version 10 (or later) to access the application. Your browser must have cookies enabled to run the application correctly.
- To generate PDF format reports (in addition to CSV), you must have:
  - The Java JDK version 1.4 or higher (Java Development Toolkit) on your SUA Server. (Note: This is different from Java Runtime Environment.) If your SUA server OS is running a 64-bit architecture, you must download and install the 32-bit JDK 1.6 or later and ensure that the installer creates the correct environment path variable for Java. Access Java JDK from Oracle's website: <http://www.oracle.com/technetwork/java/javase/downloads/index.html> to download the latest JDK.
  - The Ruby Java Bridge (RJB) version 1.1.6 on your SUA Server. Use Task #29, "Install Ruby Java Bridge" provided in the Fixlet Site to install this component onto your Tivoli Endpoint Manager for Software Usage Analysis Server. Your Server must have a Tivoli Endpoint Manager Agent installed to become relevant for this task. This task stops all related backend services, installs RJB, then restart the backend services. If JDK and the RJB are installed, all DSS exports will use the CSV output rather than PDF.
  - If you are upgrading from a previous version of the product, the RJB is already on your server and does not need to be added.
  - After the components are installed, your users must clear their browser cache before the PDF export option is available. For specific installation instructions, go to the Tivoli Endpoint Manager [Knowledge Base](#).

## User accounts

During installation and configuration, you are asked for usernames and passwords. Each stage of the installation (which installs different components) might require a user with different permissions. Use the table below to determine which username to use according to your stage of the installation process:

- Step 1** – Subscribe to the Content Site
- Step 2** – Install the SUA application
- Step 3** – Configure the services that run the software
- Step 4** – Configure the connection from the SUA application to the databases

Step	Account Requirements	Type
1. Subscribe to DSS SAM Content Site	Tivoli Endpoint Manager Operator login with permissions to subscribe to content sites	Tivoli Endpoint Manager Operator
2. Install SUA	Administrator for the O/S where you're installing SUA <i>*Note:</i> A non-administrator might be able to run the Configurator, but this could result in an error.	Domain or local
3. Configure the services that run SUA and connect to the databases	Service account with db_datareader permissions on Tivoli Endpoint Manager DB and read permission to the Tivoli Endpoint Manager server upload manager directory	Domain
4. Create the SUA databases	Specify using the service account with Administrator permissions on the database server, or User with SQL Authentication with Administrator permissions on database server	Domain SQL

For additional guidance on user accounts and access, check the [Knowledge Base](#) on the BigFix support website.

## Deployment sizing requirements

The SUA application is designed to run in a variety of deployment configurations, depending on the size and architecture of your system and how you intend to use the application. Sizing requirements and hardware specifications vary according to your configuration.

Consider the following factors to ensure the correct component processing speed, RAM, and disk space to accommodate your Tivoli Endpoint Manager Client capacity:

- The number of users accessing the SUA application determines how much processing power and RAM your server must have.
- The number of Tivoli Endpoint Manager Clients determines the amount of disk space required for files and for the database server.

***Note:** If you are using SQL Server Express Edition, see the Microsoft website for size limitations.*

For a two-computer server configuration, 1MB per Tivoli Endpoint Manager Client must be allocated on the Tivoli Endpoint Manager Server split between files and the database, and 1-2MB per Tivoli Endpoint Manager Client on the SUA application system, also split between files and database.

For example, 10,000 Tivoli Endpoint Manager Clients requires 10GB of free space on the Tivoli Endpoint Manager Server, and 10-20GB free space on the SUA application computer. This scenario would require the Tivoli Endpoint Manager Server database to be on the same computer as the SUA application. For sizing requirements on other deployment configurations, see the Appendix.



## Hardware specifications

The values listed below are recommended hardware specifications to provide optimum performance for similar-sized deployments of the SUA application. If your deployment includes more than 20 SUA application users, consider augmenting your hardware specifications to the next higher scale, or contact BigFix Technical Support for assistance with hardware selection.

For best performance, consider the following recommendations:

Deployment Size	CPU	Memory	Hard Disks
< 250	2-3 GHz	1 GB	Standard HD
1,000	2-3 GHz - 2 Cores	2 GB	1 RAID Array (RAID 10, 5)
10,000	2-3 GHz - 2-4 Cores	4 GB	1-2 RAID Arrays (RAID 10)
50,000	2-3 GHz - 4 Cores	8 GB	2 RAID Arrays (RAID 10)
100,000	2-3 GHz - 4-8 Cores	12 GB	3 RAID Arrays (RAID 10)
> 200,000	2-3+ GHz - 8-16 Cores	16+ GB	3-4 RAID Arrays (RAID 10)

RAID arrays must support use of the disk cache for both reading and writing. The disk cache must be set to 50/50 read write.

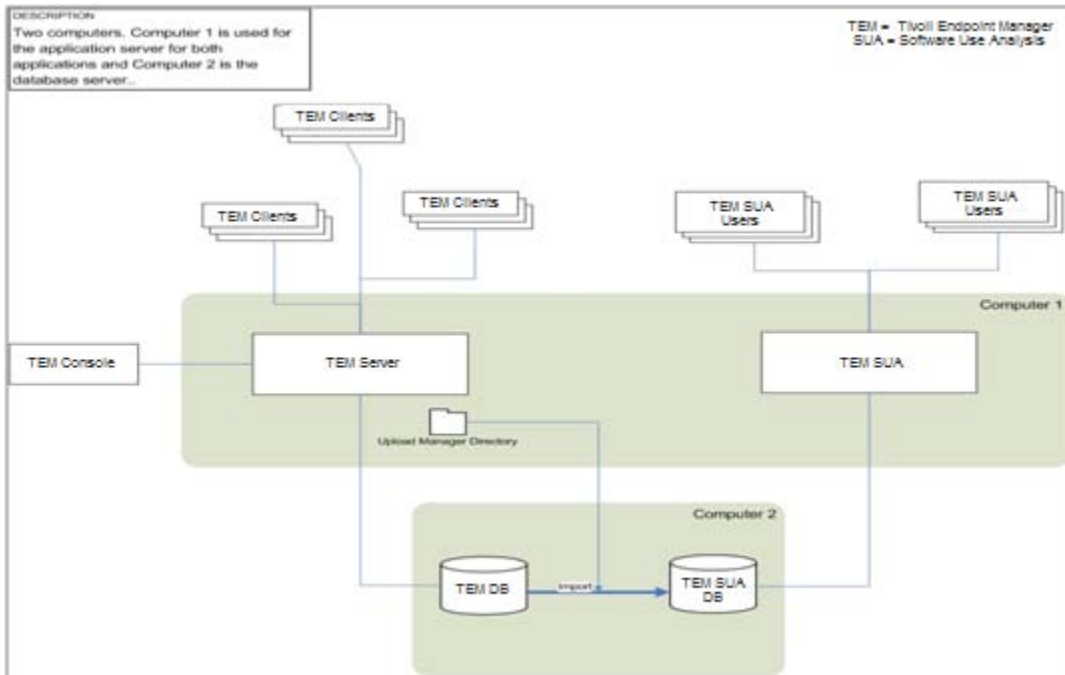
## Permissions

Ideally you will have one domain user account with the following permissions:

- Permission to install the application on your SUA server
- Permission to connect to your database server and create databases
- Permission to connect to your Tivoli Endpoint Manager database and read data
- Permission to read data from the Tivoli Endpoint Manager server upload manager directory

## Overview

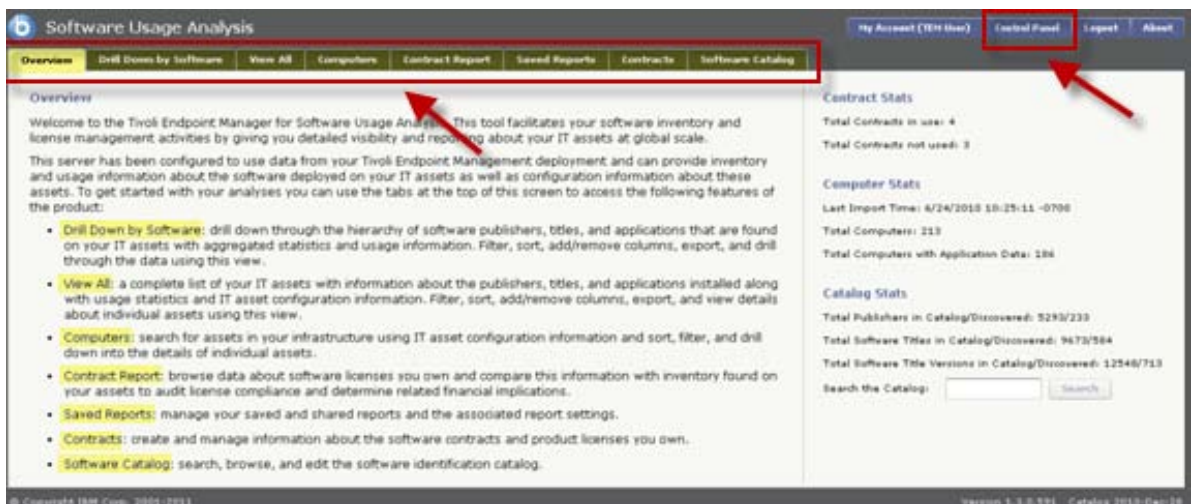
The diagram below, displaying a typical 2-computer deployment configuration, represents how the SUA application interfaces with your current Tivoli Endpoint Manager Server installation.



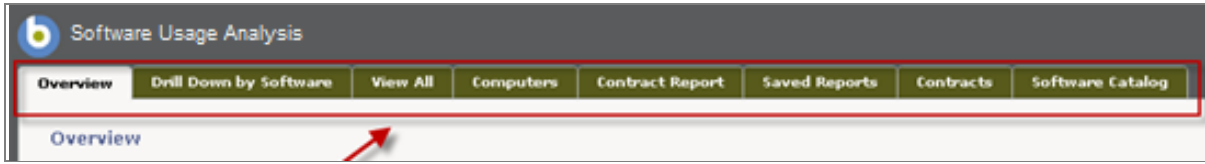
Inventory data is extracted from the Tivoli Endpoint Manager Server database and imported into the SUA application database using an *Extract, Transform, and Load (ETL)* import process. Each SUA user accesses the SUA Application Server from their computer using a web browser.

**Note:** *SUA is designed to run in a variety of deployment configurations.*

Review the image below to see the basic format of the SUA GUI.



The GUI navigation is organized by eight tabs across the top of the window: *Overview, Drill Down by Software, View All, Computers, Contract Report, Saved Reports, Contracts, and Software Catalog.*



See the table below for a brief description of each tab.

Tab	Description
Overview	A summary screen displaying the software inventory and license management activities in your deployment
Drill Down by Software	Drill down through the hierarchy of software publishers, titles, versions, and applications found on your IT assets, with aggregated statistics and usage information by using of user-specified filters.
View all	View a complete list of your IT assets together with usage statistics and IT asset configuration information through user-specified filters.
Computers	Search for assets in your infrastructure using IT asset configuration information about individual asset details.
Contract Report	Browse data about the software licenses you own and compare this information with inventory found on your assets to audit license compliance.
Saved Reports	Manage your saved and shared reports and the associated report settings.
Contracts	Create and manage information about the software contracts and product licenses you own.
Software Catalog	Search, browse, and edit the SUA Software Catalog.



# Installation

---

Prior to beginning the Installation process for the SUA Content, you need to know how to use the Tivoli Endpoint Manager Console and be logged in. Below is a basic overview of how SUA content appears in the Tivoli Endpoint Manager Console. For more detailed information about the Console, review the [Tivoli Endpoint Manager Console Operator's Guide](#).

The navigation tree in the Tivoli Endpoint Manager Console, which is available for all products, will serve as your central command for all SUA installation functions. The Console navigation tree gives you easy access to all reports, wizards, Fixlets, analyses and tasks related to your SUA deployment. Daily use and operation of the SUA application is through the UI site, which is described in more detail later in this publication.

## Console components

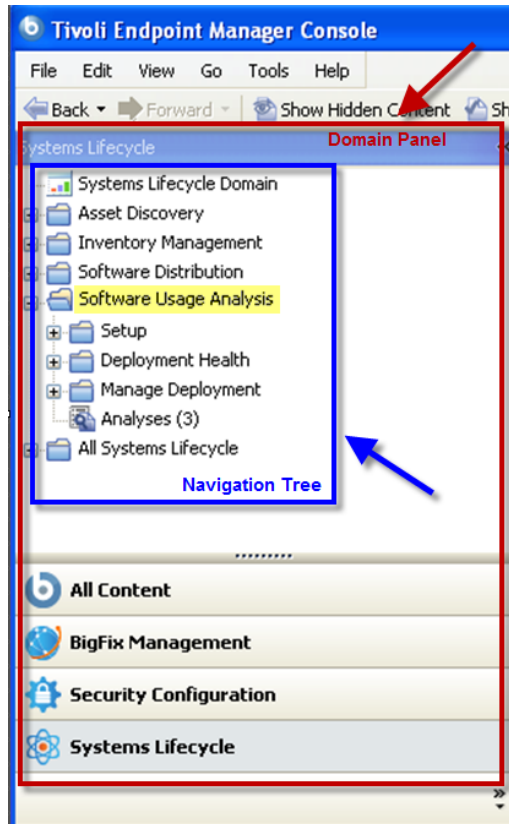
The Tivoli Endpoint Manager Console organizes content into four parts:

- *Domain Panel* – Includes the navigation tree and a list of all domains
- *Navigation Tree* – Includes a list of nodes and subnodes containing site content
- *List Panel* – Contains a list of tasks and Fixlets
- *Work Area* – Work window where Fixlet and dialogs display

In the context of the Tivoli Endpoint Manager Console, products or *sites* are grouped by categories or *domains*. For example, SAM Management is one of the sites contained within the *Systems Lifecycle* domain, together with Asset Discovery, Power Management, among others.

The domain panel is the area on the left side of the Console that includes a navigation tree and a list of all domains. The navigation tree includes a list of nodes and sub-nodes containing site content.

The image below shows a navigation tree at the top with expandable and collapsible nodes, and a list of domains at the bottom. Click the *Systems Lifecycle* domain from the domain panel to display a list of sites associated with that particular domain in the navigation tree at the top.

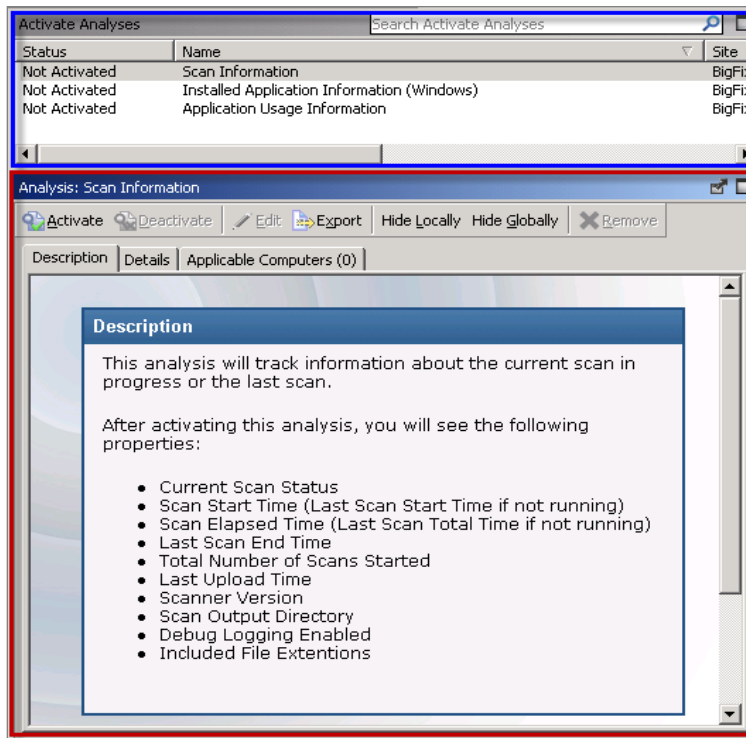


The red-outlined area represents the entire Domain Panel (including the navigation tree and list of domains), and the blue box contains just the Navigation Tree for the *Systems Lifecycle* domain.

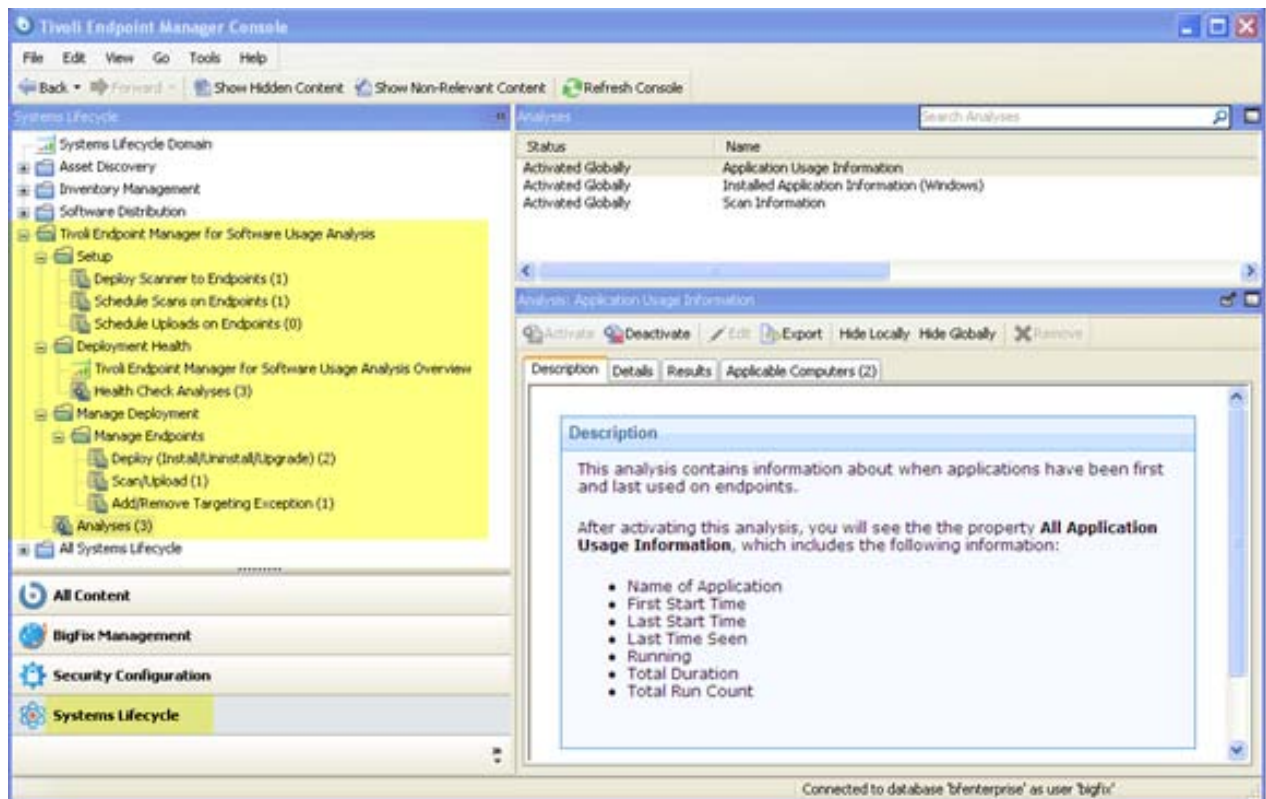
SAM Management tasks are sorted using upper and lower task windows, which are located on the right side of the Console.

The upper panel, called the *List Panel* (blue), contains columns that sort data according to type, such as Status, Name, Site, Applicable Computer Count.

The lower panel or *Work Area* (red) presents the Fixlet, task screen or Wizard from which you will be directed to take specific actions to customize the content in your deployment.

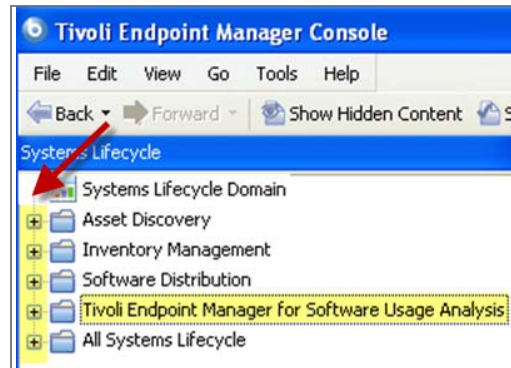


The below image shows how it all looks together:

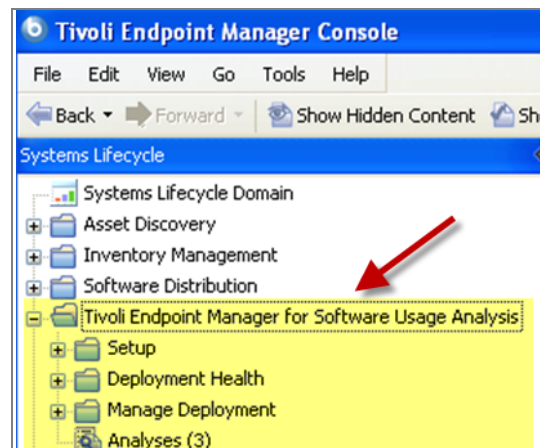


## Working with content

The navigation tree organizes SAM Management content into expandable and collapsible folders that you use to navigate and manage relevant components in your deployment. Click the plus sign (+) to expand the navigation tree nodes and the minus sign (-) to collapse them.

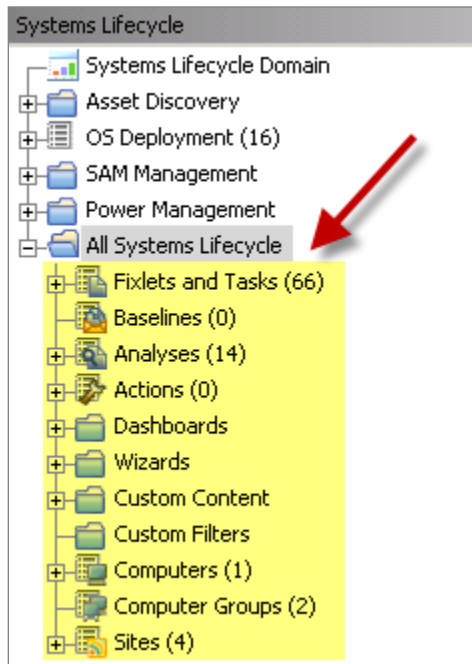


When you click on the *Systems Lifecycle* domain at the bottom of your screen, you see content related to the SAM Management “site” organized into expandable nodes.

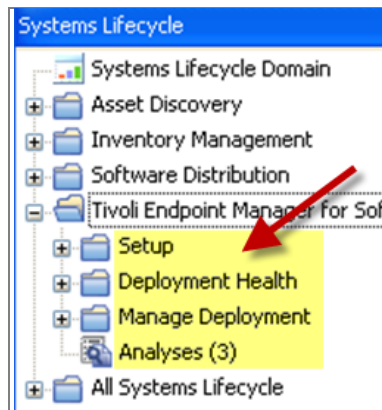


The *All Systems Lifecycle* node includes content (analyses, dashboards, wizards) related to the entire *Systems Lifecycle* domain, including all of its related “sites”.

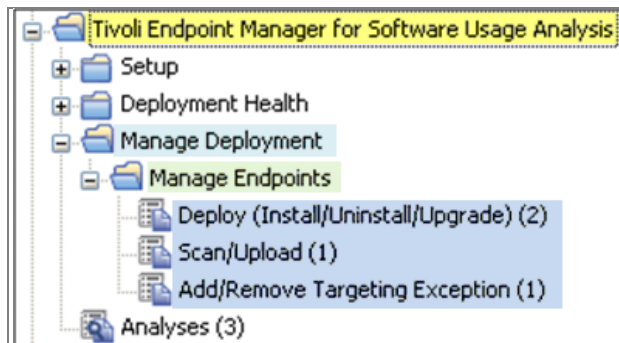




SUA content is organized into three primary nodes: *Setup*, *Deployment Health*, and *Manage SAM* *Deployment*, as well as *Analyses*.



Some of these nodes expand into sub-nodes that contain additional content:



The next sections describe the following content in more detail:

- Installing SUA Content via the Tivoli Endpoint Manager Console
- Installing your SUA Application Server

## Deploying the SUA content site

The SUA Site Masthead contains information about Tivoli Endpoint Manager content that performs SAM tasks and analyses. You must be subscribed to the site to collect the inventory data from the Tivoli Endpoint Manager Clients. SUA use this inventory data for reporting and analysis.

### Adding or subscribing to SUA site

The process for site subscription depends on the version of the Console that you have. Click [here](#) to get specific site subscription directions from the Knowledge Base.

**Note:** *It is important to deploy the SUA Content from the Tivoli Endpoint Manager site rather than from a Custom Site, even if your custom site contains the same content. The SUA application only uses software inventory data aggregated by your Tivoli Endpoint Manager server through the tasks and analyses defined in the site.*

### Deploying site content to your computers

To properly collect software inventory data from your computers, you must have three components active for each computer: SAM scans, Application Usage Tracking, and Installed Application Tracking.

Deploying this site content to the computers in your network involves the following processes and sub-processes:

1. **Activating the Analyses**
2. **Deploying and Scheduling the SAM Scanner**
  - a. *Install SUA Scanner*
  - b. *Schedule an Upload Policy Action*
  - c. *Schedule a SAM Scanner Action*

This site contains Tasks and Analyses, which are managed using the Deployment Overview dashboard in the Tivoli Endpoint Manager Console.

The dashboard is organized into five pie charts, each displaying data based on the health of the inventory tasks on your computers: *Deployment Health*, *SAM Scanning Results*, *Application Usage Tracking*, *Installed Application Tracking*, and *Status of Sick Computers*. Each pie chart is described below.



## Deployment Health

This chart shows the operational health of your SUA Deployment. Click the chart slices to open each computer group or right-click the chart to view the Health Breakdown to help diagnose any issues.

### Healthy Computers:

- Run the SAM Scanner in the current time period, defined by the slider bar under the SAM Scanning Results chart
- Upload the data from that scan to the SUA Server
- Are reporting both the Application Usage Tracking analysis and the Installed Applications analysis

### Sick Computers:

Sick computers might have only one or two tracking components enabled, the data is not current, or there might be some other issue. See the *Status of Sick Computers* section below for more information about sick computers in your deployment. Computers designated as "Not Reported" have not yet reported any tracking analyses. "Not Targeted" computers exist within your Tivoli Endpoint Manager deployment, but have not yet had DSS tracking enabled. Exceptions are the computers that you have explicitly excluded from SUA inventory actions using Deployment Control Options under the Deploy menu.

## SAM Scanning Results

This chart shows how many computers have run the SAM Scanner in the current time period (for example, in the last seven days), and have uploaded the results of that scan to the SUA Server. Use the slider bar to adjust the time period up to 28 days to see how current your deployment is. Computers that are “Not Current” might have been offline for a period longer than the time period defined by the slider bar under SAM Scanning Results, or they might be locked.

## Application Usage Tracking

This chart shows the number of computers reporting to the analysis "Application Usage Info".

## Installed Application Tracking

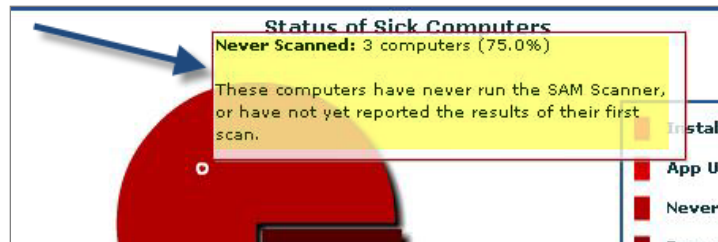
This chart shows the number of computers reporting to the analysis "Installed Applications".

## Status of Sick Computers

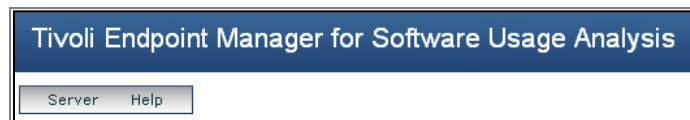
This chart provides specific information about why computers in your deployment are reporting as “sick”. SUA categorizes “sick” status by using the following criteria:

- Installed Apps Inactive
- App Usage Inactive
- Never Scanned
- Error on Last Scan
- Report Not Uploaded
- No Current Scan

Hover over each pie slice to see a detailed description of each.



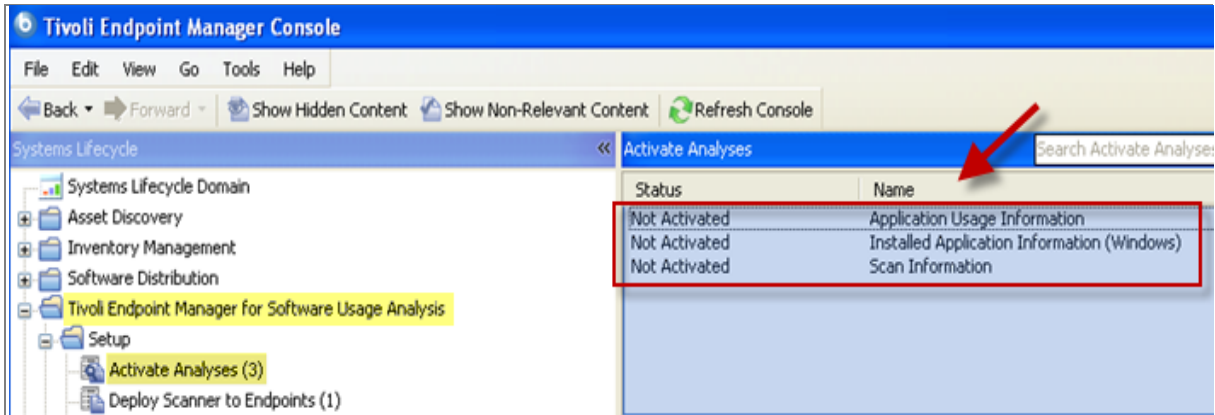
Two drop-down menus are located above the charts on the dashboard. See the table below for a brief description of each menu.



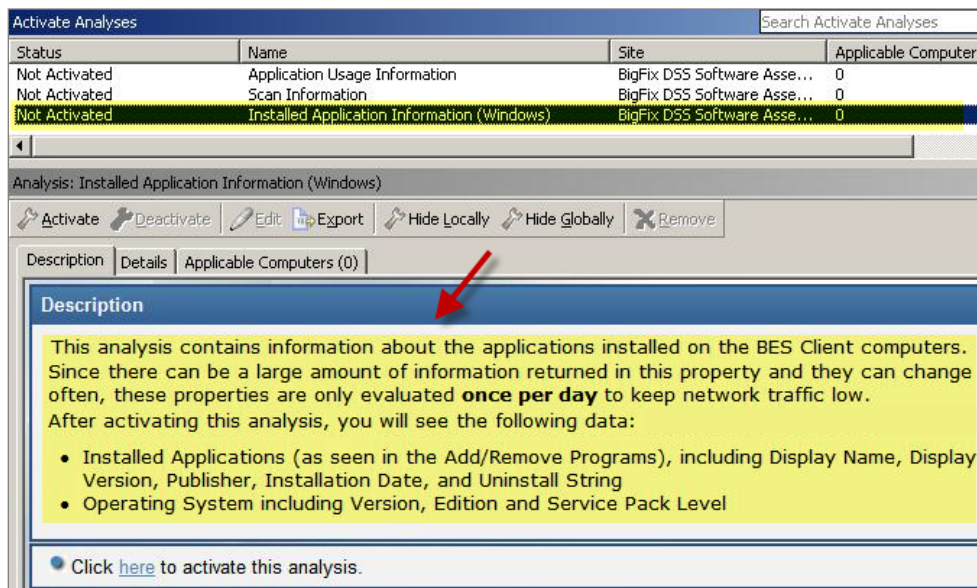
<b>Server</b>	Links you to your SUA web application.
<b>Help</b>	Provides a link to this Installation and Configuration Guide

## 1. Activate the analyses

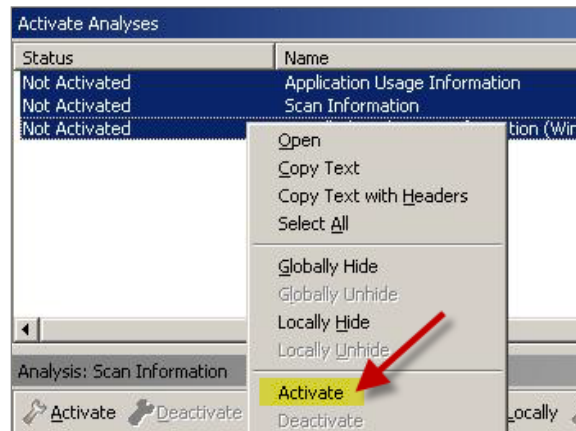
Open the *SAM Management* site in the Console. Click *Activate Analyses* under the *Setup* node in the navigation tree.



To learn how each analysis affects your deployment, click on the analysis and view a description in the work area that opens, as shown below:



You can select each analysis individually or select the entire list of analyses all at once. Right-click to display a list of options, and select *Activate*. Enter your Private Key Password and click *OK*.



When activated, the status of each analysis will change in the List Panel.

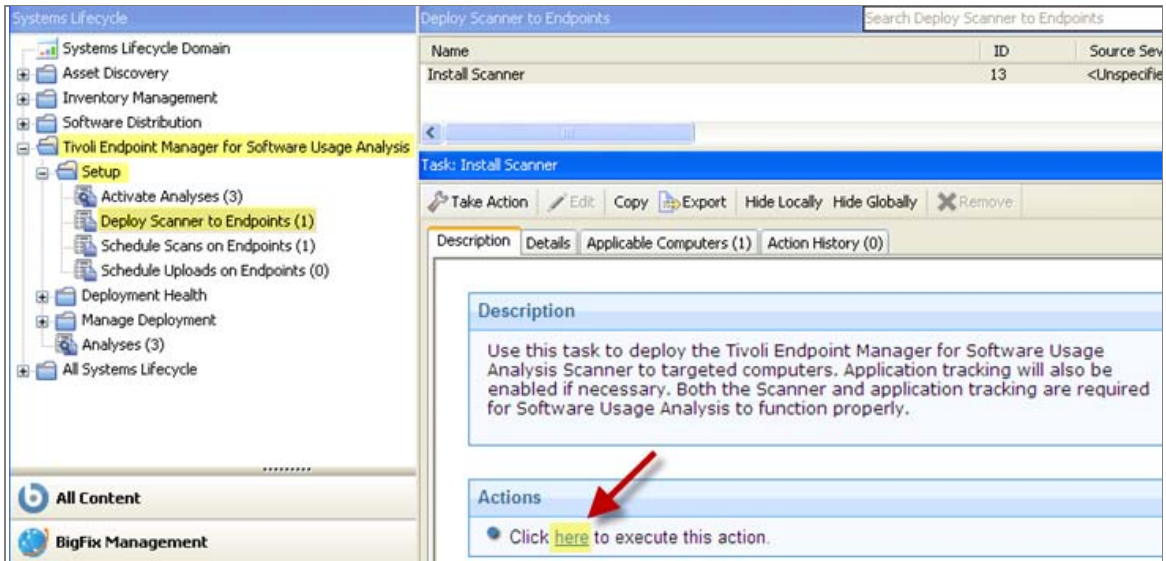
Status	Name
Activated Globally	Application Usage Information
Activated Globally	Scan Information
Activated Globally	Installed Application Information (Windows)

Now you are set up to view and analyze the computers you have targeted.

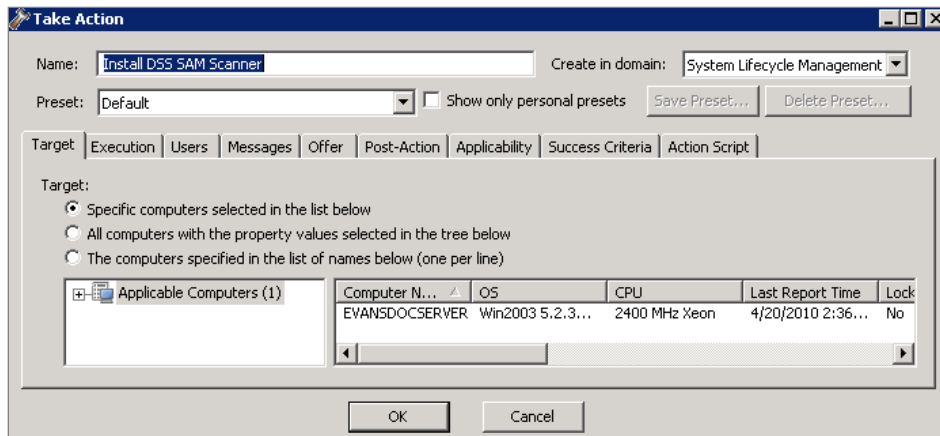
## 2. Deploying and Scheduling SAM Scanner

### a. Install SUA scanner

To install the SAM Scanner, click *Deploy Scanner to Endpoints* under the *Setup* node in the navigation tree. This Task deploys the SAM Scanner to your targeted endpoints. Click the link in the Actions box to initiate this action.



The Take Action dialog opens, where you can set specific parameters for this Action. Use the tabs across the top of the page to customize how this action will affect your deployment. Then click **OK** at the bottom of the window. Enter your Private Key Password.



For detailed information about how to use the Take Action dialog, see the [Tivoli Endpoint Manager Console Operator's Guide](#).

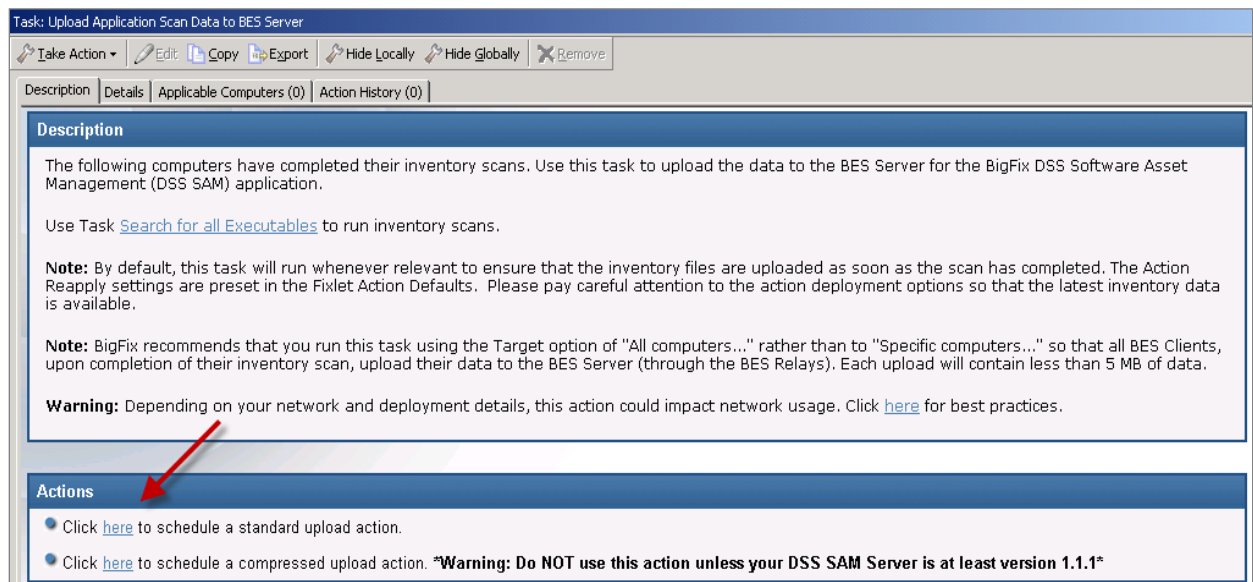
**Note:** You can choose to target a selection of computers rather than all computers. However, note that targeting less than all of your computers results in an incomplete inventory of your software.

## b. Schedule Upload Policy Action

A Tivoli Endpoint Manager policy action applies to any current and future computers that meet the applicability criteria defined in the policy. In this case, you are creating a policy action that uploads the software inventory index to your Tivoli Endpoint Manager server, whenever it is created or updated by the SAM Scanner on each computer. In the next step below, you define the indexing schedules.

The Upload Manager buffer directory size limitations include a maximum value of  $2^{31} - 1$ . Most customers with over 10,000 computers need to move SUA inventory data to a centralized location where there are no directory size limits.

From the navigation tree, click *Schedule Uploads on Endpoints*. Click in the Actions box to deploy the action. The Actions box has two options: you can schedule a standard upload action, or a compressed upload action. Only use the *compressed* action if you are running SUA version 1.1.1 or later.



Task: Upload Application Scan Data to BES Server

Take Action | Edit | Copy | Export | Hide Locally | Hide Globally | Remove

Description | Details | Applicable Computers (0) | Action History (0)

**Description**

The following computers have completed their inventory scans. Use this task to upload the data to the BES Server for the BigFix DSS Software Asset Management (DSS SAM) application.

Use Task [Search for all Executables](#) to run inventory scans.

**Note:** By default, this task will run whenever relevant to ensure that the inventory files are uploaded as soon as the scan has completed. The Action Reapply settings are preset in the Fixlet Action Defaults. Please pay careful attention to the action deployment options so that the latest inventory data is available.

**Note:** BigFix recommends that you run this task using the Target option of "All computers..." rather than to "Specific computers..." so that all BES Clients, upon completion of their inventory scan, upload their data to the BES Server (through the BES Relays). Each upload will contain less than 5 MB of data.

**Warning:** Depending on your network and deployment details, this action could impact network usage. Click [here](#) for best practices.

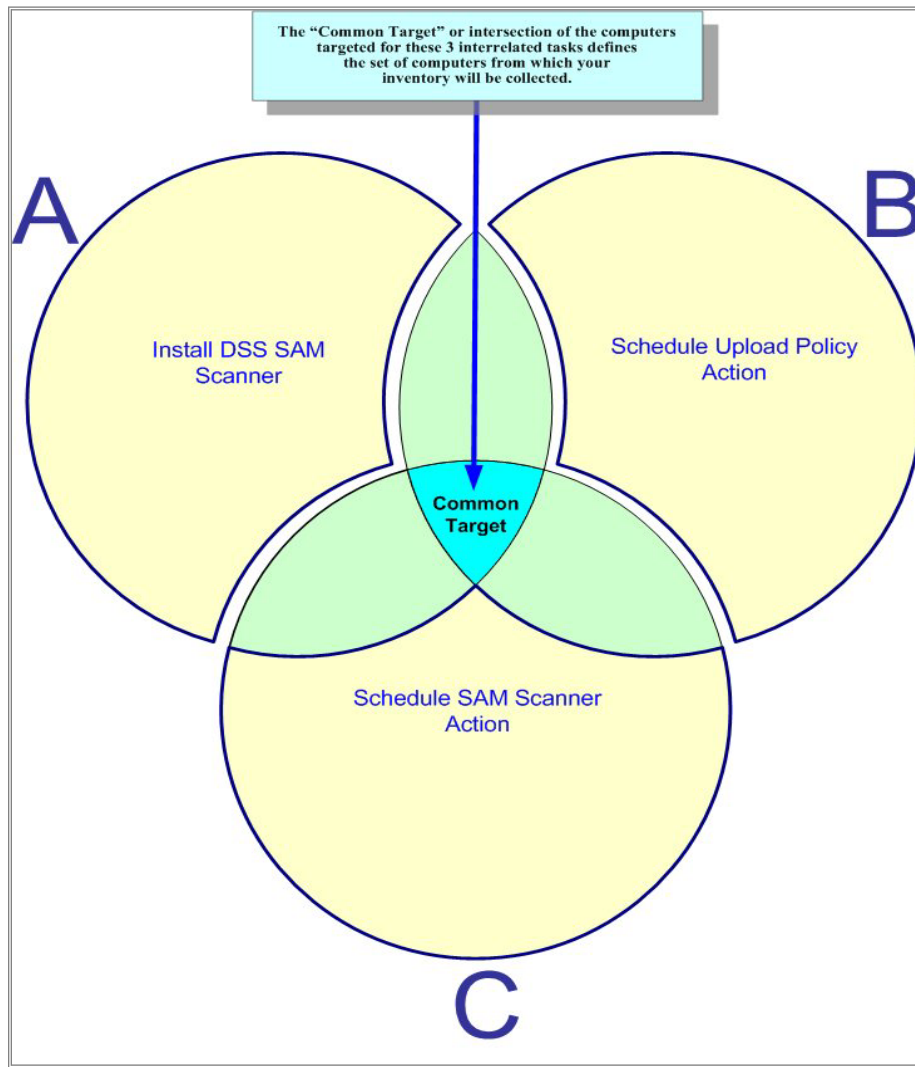
**Actions**

- Click [here](#) to schedule a standard upload action.
- Click [here](#) to schedule a compressed upload action. **\*Warning: Do NOT use this action unless your DSS SAM Server is at least version 1.1.1\***

When you click in the Actions box, the Take Action dialog opens. Make your selections, and then click *OK*.

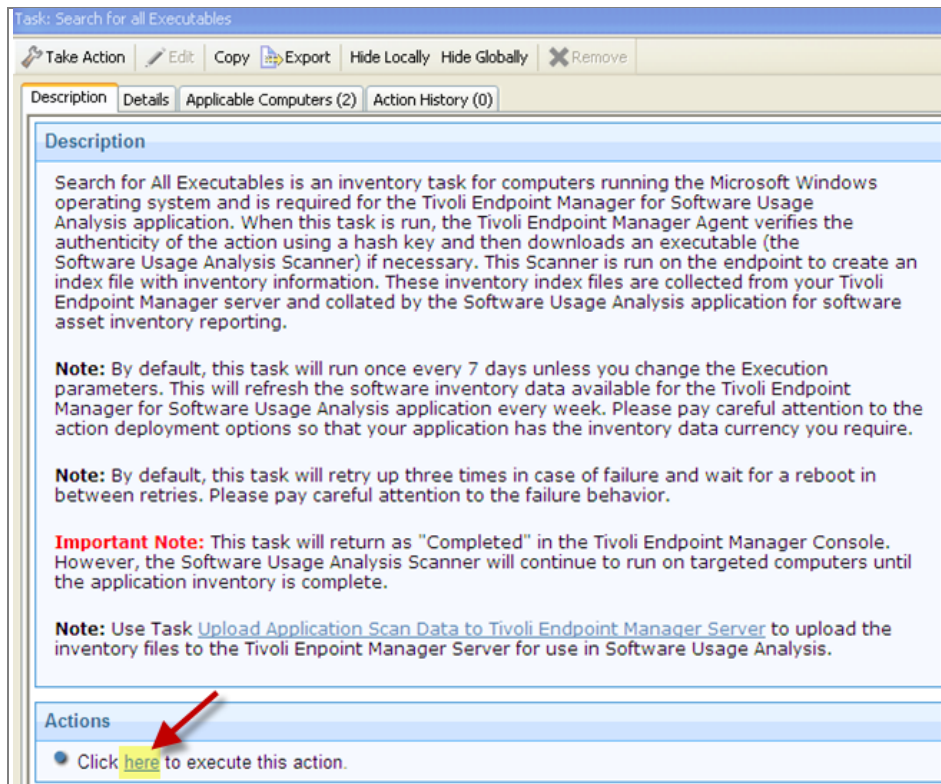
**Note:** *You can target a selection of computers rather than all computers. However, note that targeting less than all of your computers will result in an incomplete inventory of your software. See the diagram below for a visual depiction of this arrangement.*



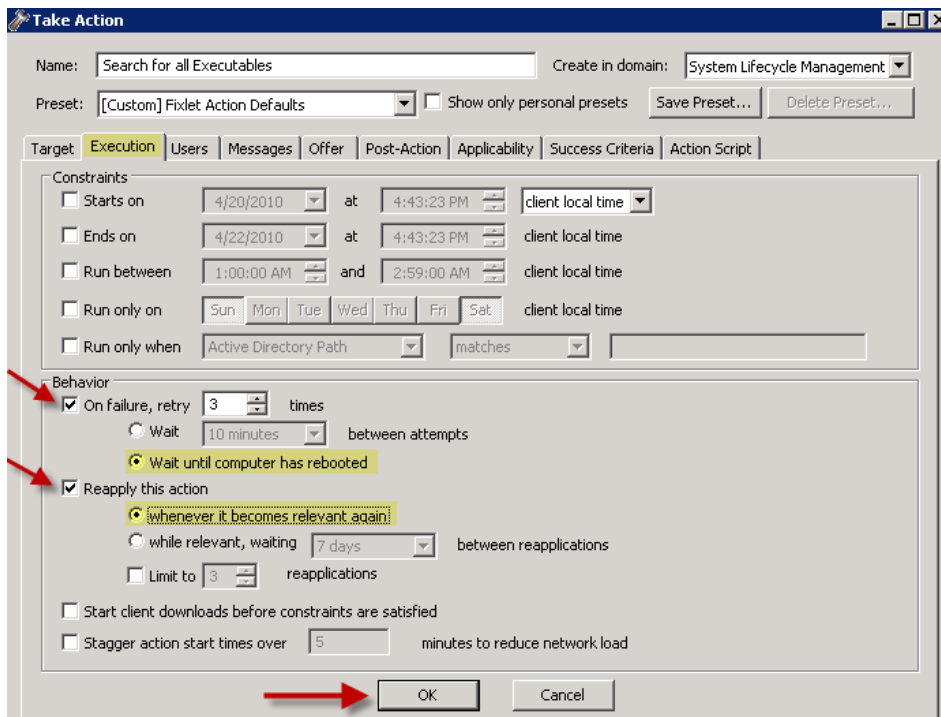


**c. Schedule a SAM Scanner Action**

The SAM scanner creates or updates the software inventory index on each computer according to the schedule you set in this step. From the navigation tree, click *Schedule Scans on Endpoints*. Click in the Actions box to perform the Action.



On the *Execution* tab, it is recommended to select the following parameters when specifying the type of scan:





In the *Behavior* section of the *Execution* tab, click the *Reapply this action* and *whenever it becomes relevant again* boxes, as shown above. These are the only boxes that should be checked on this tab. Then click *OK*.

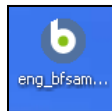
For additional information about setting parameters using the Take Action dialog, see the [BigFix Console Operator's Guide](#) on the BigFix support website.

## Installing the SUA application server

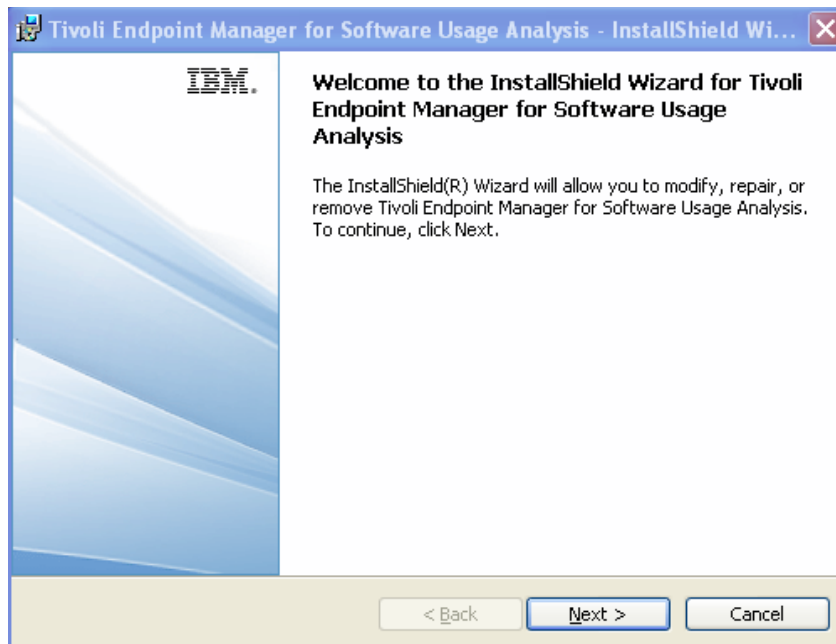
Tivoli Endpoint Manager provides the SUA application installer. Save the installer on the computer you have designated to be your SUA Application Server. If you are upgrading from a previous version of SUA, see the Upgrading section in the Appendix of this publication.

## Installing the application

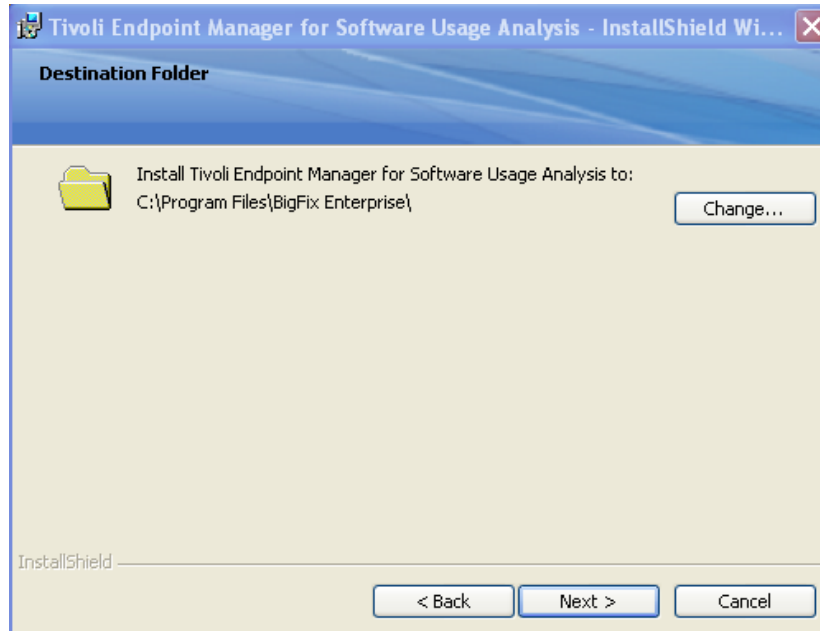
Click the installer icon on your SUA Application Server computer.



This launches the InstallShield Wizard. When the Welcome screen opens, click *Next*.



Follow the prompts through the License Agreement and Destination Folder screens.

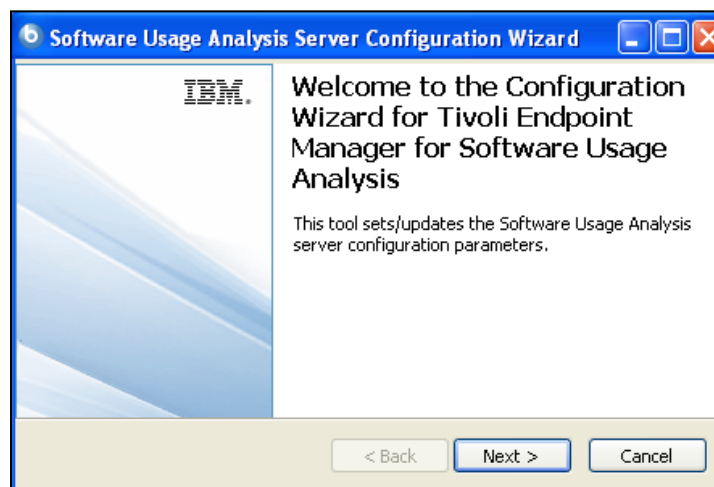


Select a location for your SUA application, and then click *Next*. The application automatically begins installing and takes one to two minutes. When the Completed window appears, click *Finish*.

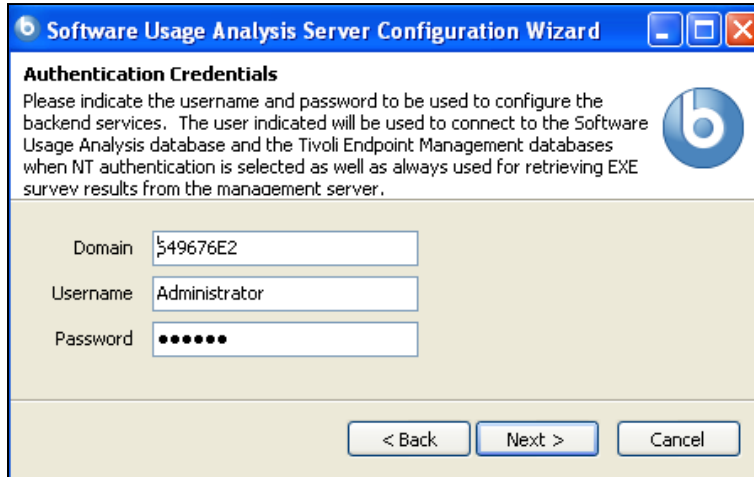
This completes the installation of the SUA application. Click *Finish* to see a splash screen that displays for up to three minutes while the Configuration Wizard loads.

## Configuring the application

The next task is to configure the SUA application using the SUA Configuration Wizard. When the Welcome screen opens, click *Next*.

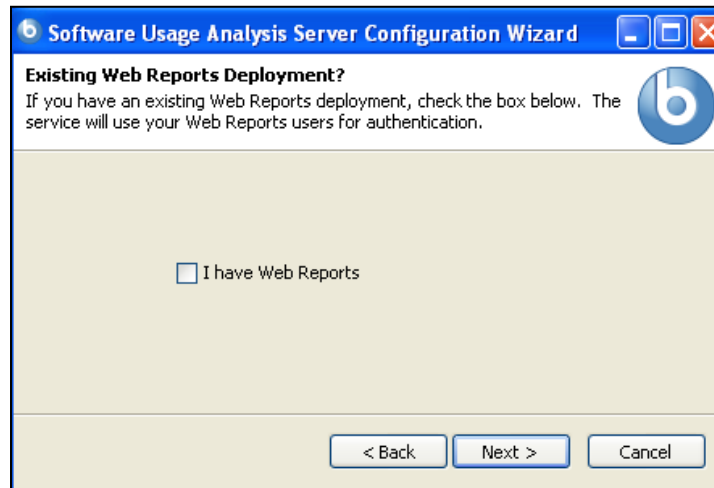


Enter the Domain, Username, and Password for the user under which the core SUA application services is to run, and then click *Next*. This user must have “bulkadmin” permissions and “datareader” permissions on your SUA database server *and* on your Tivoli Endpoint Manager database server. However, you can override this setting later when using the SUA application by providing direct SQL authentication credentials for connecting to the database server. If you do not know your domain, username or password, check with your IT group.



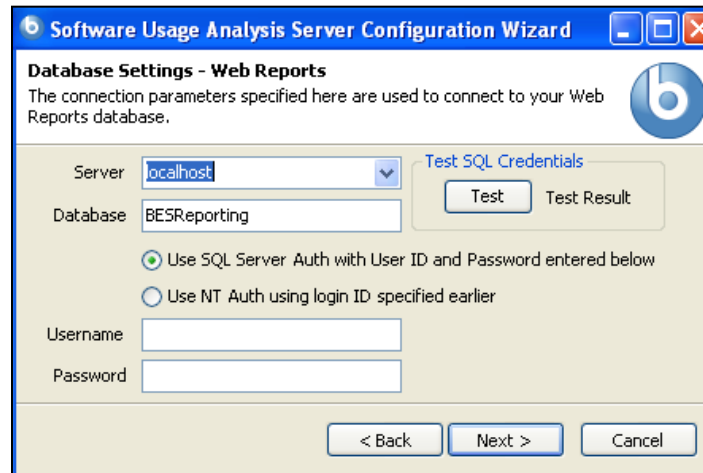
The screenshot shows the 'Authentication Credentials' step of the 'Software Usage Analysis Server Configuration Wizard'. The window title is 'Software Usage Analysis Server Configuration Wizard'. The main heading is 'Authentication Credentials'. Below the heading is a paragraph of instructions: 'Please indicate the username and password to be used to configure the backend services. The user indicated will be used to connect to the Software Usage Analysis database and the Tivoli Endpoint Management databases when NT authentication is selected as well as always used for retrieving EXE survey results from the management server.' To the right of this text is a blue circular icon with a white 'b'. Below the text are three input fields: 'Domain' with the value '549676E2', 'Username' with the value 'Administrator', and 'Password' with seven black dots. At the bottom of the window are three buttons: '< Back', 'Next >', and 'Cancel'.

If you want your current Web Reports users to also be SAM users, click the *I have WebReports* box and then click *Next*.

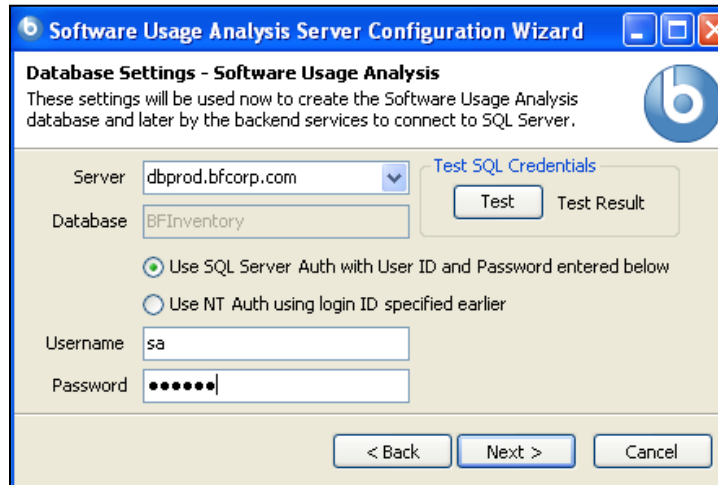


The screenshot shows the 'Existing Web Reports Deployment?' step of the 'Software Usage Analysis Server Configuration Wizard'. The window title is 'Software Usage Analysis Server Configuration Wizard'. The main heading is 'Existing Web Reports Deployment?'. Below the heading is a paragraph of instructions: 'If you have an existing Web Reports deployment, check the box below. The service will use your Web Reports users for authentication.' To the right of this text is a blue circular icon with a white 'b'. Below the text is a single checkbox with the label 'I have Web Reports'. At the bottom of the window are three buttons: '< Back', 'Next >', and 'Cancel'.

If you clicked the *I have WebReports* box, a dialog box opens where you set up your Data Settings for Web Reports.



Then a dialog box opens where you can set up Data Settings for SUA.



1. Select from the server drop-down menu or manually enter the database server name. This is where the database tables for the inventory will be created. This can also be the same database server where your Tivoli Endpoint Manager Server database is located. If your server is on a nonstandard port, you can enter this by putting a comma and the port number after the server name (localhost,1433).
2. Select your connection method to either "SQL Server Authentication" or "NT Authorization". SQL Server Authentication requires your SQL Server ID and Password. For NT Authorization, use the User information that was specified on the Authorization Credentials screen. Be certain that this User has at least "dbcreator" permissions to create new databases and tables on the database server.

**Software Usage Analysis Server Configuration Wizard**

**Database Settings - Software Usage Analysis**  
 These settings will be used now to create the Software Usage Analysis database and later by the backend services to connect to SQL Server.

Server: dbprod.bfcorp.com Test SQL Credentials  
 Database: BFInventory Test Test Result

Use SQL Server Auth with User ID and Password entered below  
 Use NT Auth using login ID specified earlier

Username: sa  
 Password: [masked]

< Back Next > Cancel

**Software Usage Analysis Server Configuration Wizard**

**Database Settings - Software Usage Analysis**  
 These settings will be used now to create the Software Usage Analysis database and later by the backend services to connect to SQL Server.

Server: dbprod.bfcorp.com Test SQL Credentials  
 Database: BFInventory Test Test Result

Use SQL Server Auth with User ID and Password entered below  
 Use NT Auth using login ID specified earlier

Username: [empty]  
 Password: [empty]

< Back Next > Cancel

3. Click *Next*. The Server Port Configuration is set with a default of 80 for HTTP or 443 for HTTPS.

**Software Usage Analysis Server Configuration Wizard**

**Server Settings**  
 These settings determine how the Software Usage Analysis server is to be accessed.

Use HTTP  
 HTTP Port: 80

Use HTTPS  
 SSL Cert: [empty] Browse  
 HTTPS Port: 443

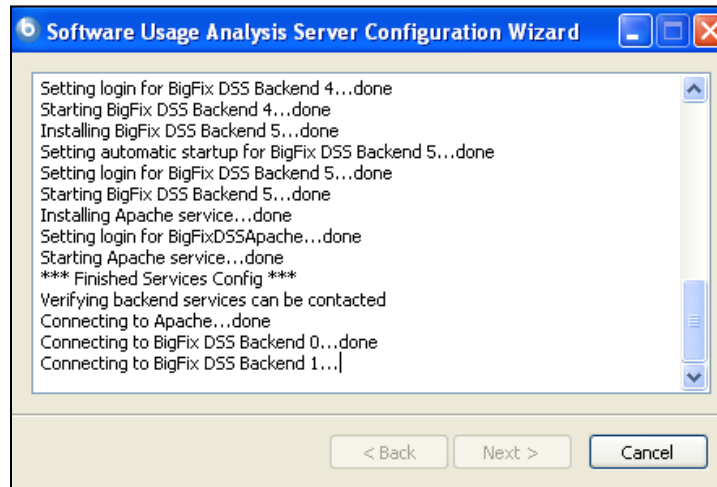
< Back Next > Cancel

This is the port on which you can access the SUA application. If another service is using the specified port on your SUA application computer, you have the option to enter another port number. Tivoli Endpoint Manager Web Reports typically uses Port 80, so if you install SAM on the same computer as Web Reports, you must use a different port number.

To find your server port number, check with your IT department. If you change the port to a non-default, make note of the port number for later use.

Enabling the SSL option will require you to browse for your SSL Certificate. This Wizard only supports an SSL “.pem” file. Note that this .pem file is *not* validated. The Administrator running the Configurator must verify that there is a valid certificate.

4. Click *Next*. The database for the SUA application is created on your SQL Server 2005 computer and services are installed and enabled, as shown below.



The table below provides a brief description of the services installed by the Configuration Wizard.

Service	Definition
Cron	“Cron” is driven by a <i>crontab</i> , a configuration file that specifies <a href="#">shell</a> commands to run periodically on a given schedule. Cron is a Windows scheduled task used to perform imports of BF data on a regular schedule.
Apache	Apache is the HTTP web server for the SUA application. This service is shown as ‘BigFixDSSApache’ in the MS ‘Administrative Tools/Services’ console.
Mongrel	Mongrel is a fast HTTP library and server for Ruby on Rails intended for hosting Ruby web applications of any kind, using plain HTTP rather than FastCGI or SCGI. This service is shown as Several ‘BigFix DSS Backend’ processes in the MS ‘Administrative Tools/Services’ console. When it is running, you can also see Ruby.exe in your process tree.

5. At the *Completing the SUA Configuration Wizard* window, click *Finish*.

You have now completed the installation of the Tivoli Endpoint Manager SUA application and configured the SUA application database. The tables have been created on your database server.



# Configuration

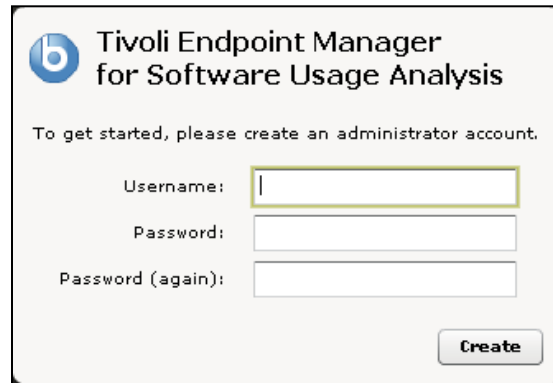
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## Creating a datasource

Now that you have installed the SUA application web server and created the database, you are ready to configure the SUA application for use. Open your internet browser to <http://localhost>. If you selected the SSL option, use <https://localhost>.

**Note:** *If the port was changed during the installation process from the default of 80 (or 443 if you are using HTTPS), you must specify the new port number when accessing the application. If you choose port 81 for example, enter <http://localhost:81/>.*

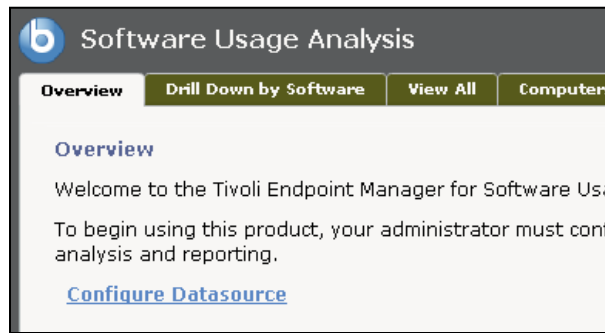
1. Create an Administrator account for the SUA application. Fill in the Username and Password fields.



The screenshot shows a web form titled "Tivoli Endpoint Manager for Software Usage Analysis". Below the title, it says "To get started, please create an administrator account." There are three input fields: "Username:", "Password:", and "Password (again):". A "Create" button is located at the bottom right of the form.

**Note:** *Your system must have Adobe Flash 9 or higher installed to be able to proceed. If not installed, the browser prompts you to install Flash.*

2. Click *Create*. On the first run, the Administrator must create a User and Datasource. A datasource is a Tivoli Endpoint Manager Server that manages your deployment. It holds all of the data required for you to manage your computers, including the results of the SUA tasks and analyses inventory results. You must extract key inventory data from the datasource and place it in the SUA database for inventory reporting.
3. Select the Configure Datasource link from the SUA Overview screen.

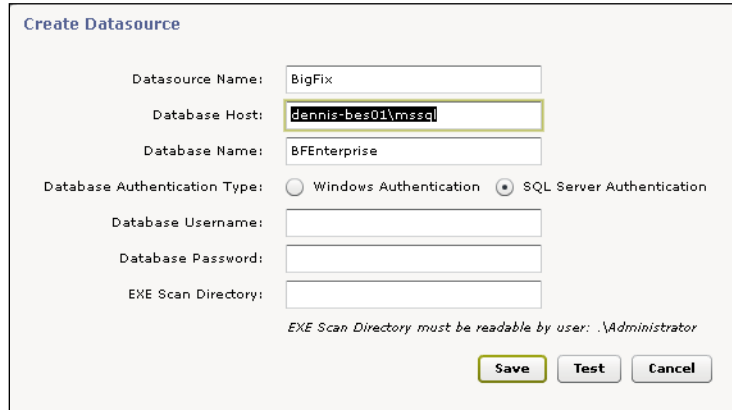


**Note:** You can also access Platform Datasource in the Control panel if you are logged in as a User in the Administrator group. Select the Control Panel button on the upper right hand side of the main SUA application window. Then select Platform Datasources located under the Data Import menu.



4. Click the *Plus Sign* in the lower part of the window, and the Create Datasource window opens.

**Note:** A Datasource is where the results of the SUA Content Site Tasks and Analyses are stored. The steps you completed in Section 2 (Deploying the SUA Content Site) were required to complete this section. When the SUA Content Site is deployed to the Tivoli Endpoint Manager Clients on your network, your inventory data becomes available to the SUA application.

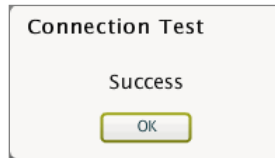


5. You can now see the Create Datasource dialog box displayed. The Datasource Name field is the name that you want to display in the SUA application.
6. The Datasource Host field is the name of the database server for the Tivoli Endpoint Manager Server from which you deployed the SUA Tasks and Analyses. It contains the inventory results of that deployment. If your server's database is on a non-standard port, enter it with a comma separator, for example, 192.168.1.1, 1434.
7. The Datasource Database field is the name of the Tivoli Endpoint Manager database for the Server from which you deployed the SUA Tasks and Analyses. Unless you changed it when you installed your Server, the database is named *BFEnterprise*.
8. The Datasource Authentication Type buttons provide a choice between *Windows Authentication* and *SQL Server Authentication*.
  - **Windows Authentication** – If you use your domain credentials to connect to SQL Server, Windows Authentication must use the same account that you configured to run the SUA server.
  - **SQL Server Authentication** – If you do NOT use your domain credentials to connect to SQL Server, check SQL Server Authentication and enter your SQL Server username and password.
9. The EXE Scan Directory field is the location of the files uploaded by the Tivoli Endpoint Manager Upload Manager, as specified by the Search for All Executables task defined in the SUA Content Site. This UNC directory path must be accessible to the SUA Application Server. The User under which the SUA application runs, which was specified during the installation process (see *User Accounts and Access Recommendations* section), must have Read Permission to this directory.

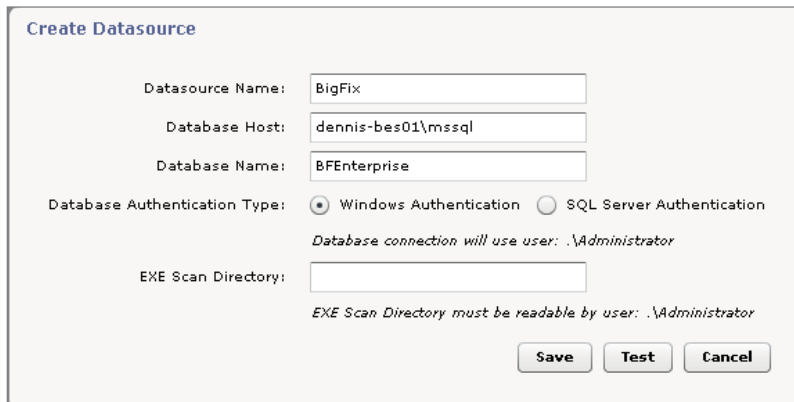
The default path on your Tivoli Endpoint Manager Server is as follows:

```
\\<computer_name>\c$\Program Files\BigFix
Enterprise\BES Server\UploadManagerData\BufferDir\sha1
```

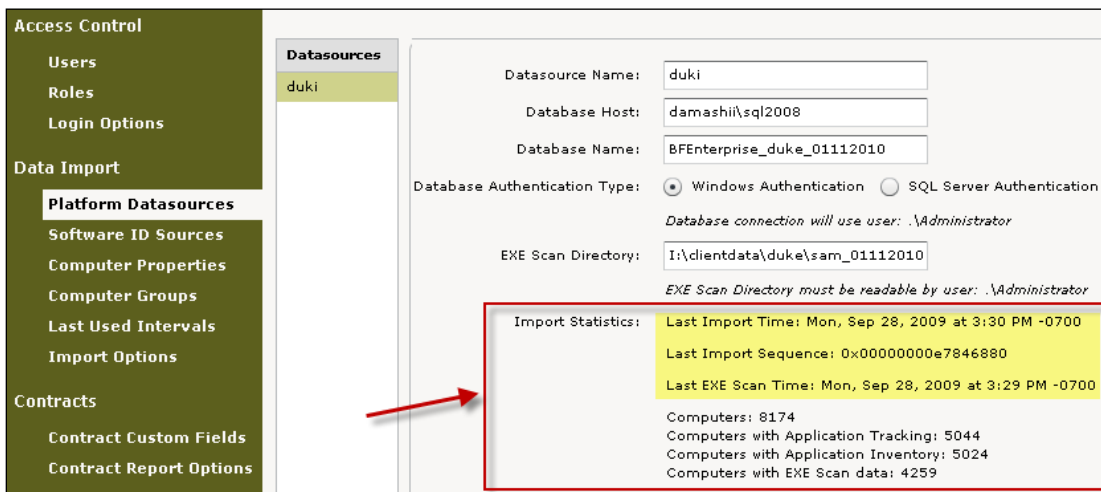
10. Click *Test* and a Connection Test window opens. Click *OK*.



11. Review the data on your Create Datasource window, and then click *Save*. This process might take several minutes while the SUV server reads information from your Tivoli Endpoint Manager server.



The following window confirms the import status of your newly-defined datasource:



If you have multiple Tivoli Endpoint Manager servers, you can add more than one datasource by repeating the steps above. If you are using Tivoli Endpoint Manager for server replication, you only need to add one of your Tivoli Endpoint Manager root servers as the datasource. There is a specific DSA configuration for SUA inventory. Consult the Tivoli Endpoint Manager [Knowledge Base](#) for more information.

You have now configured the SUA application with information about where the inventory data to be extracted and populated into the SUA application database is located. Populating the database is the next step.

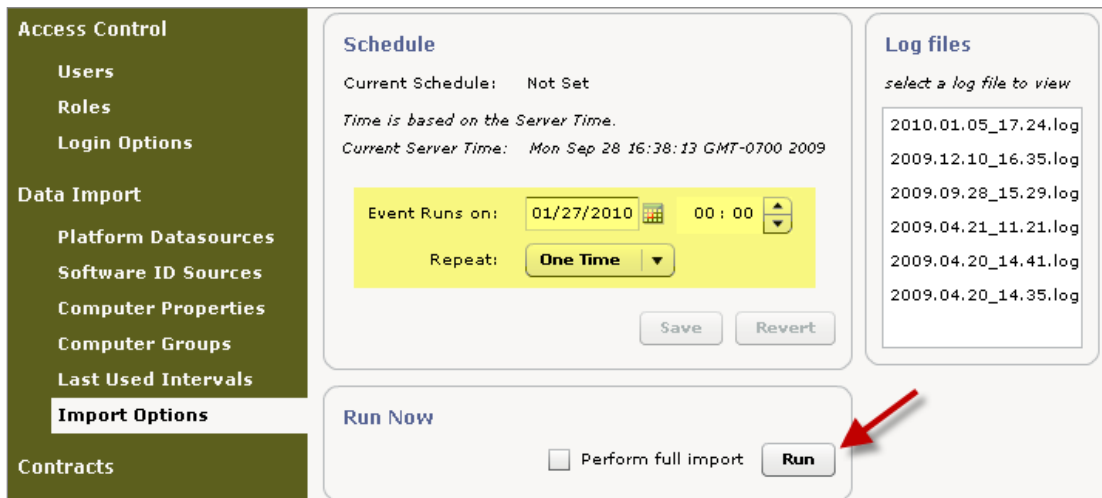
## Import Options

The inventory results are stored on your Tivoli Endpoint Manager Server in the location you specified under the Platform Datasources section. You must extract that data and load it into the SUA application database for use by the SUA application.

In this section, you also specify a schedule for extracting the data from your Tivoli Endpoint Manager Server and importing it into the SUA application database.

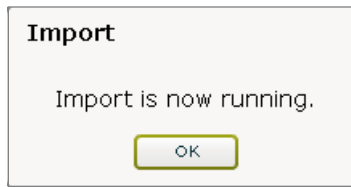
### Scheduling

1. Select *Import Options* under the Data Import menu in the Control Panel. Import Options generates a Schedule window, as shown below.

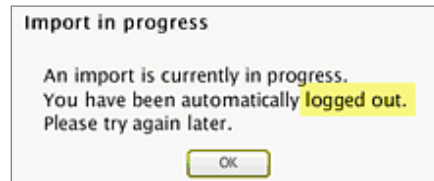


2. The Schedule box allows you to schedule your database refresh times, or perform a refresh immediately.
3. The *Run Now* box allows you to schedule a full import to run at a certain time or click *Run*.
4. You have now finished installing the SUA application software. When the import is complete, you have populated your SUA application database with inventory data from your Tivoli Endpoint Manager Server.

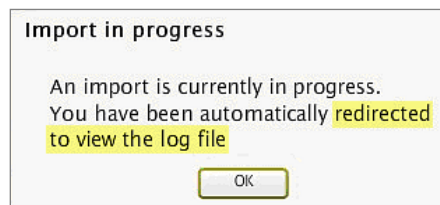
**Note:** *The scope and currency of your inventory data is determined by the execution settings that you used for the SUA inventory tasks you created, and by your settings on the Import Options schedule window. The data in SUA is only as current as your most recent import.*



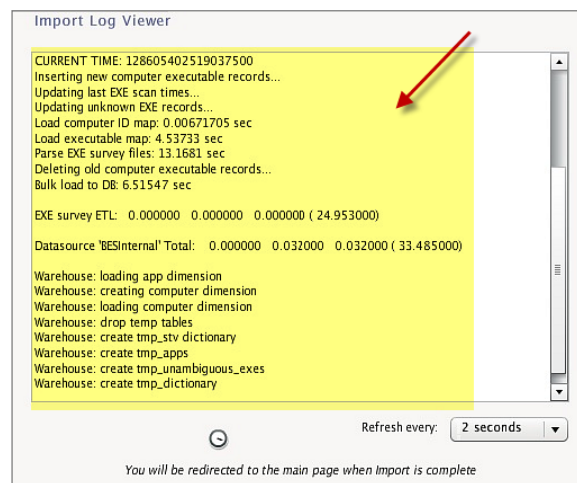
Users are logged out if they attempt to use the application while an import is running:



However, SUA Administrators are redirected to a temporary import status screen if they attempt to use the application while an import is running:



Click *OK* to display the following Import Log Viewer. As the import progresses, the log file contents are displayed within the Viewer:

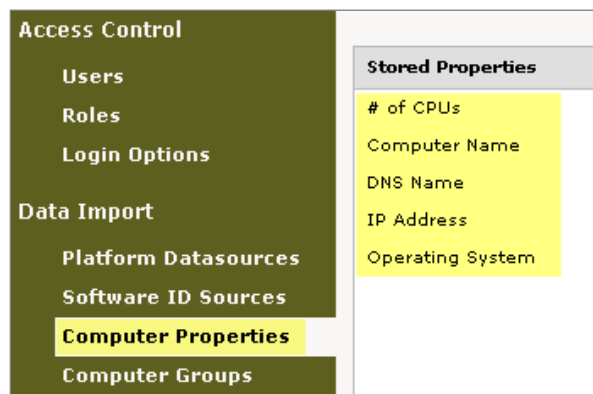


# Customizing the Data Import

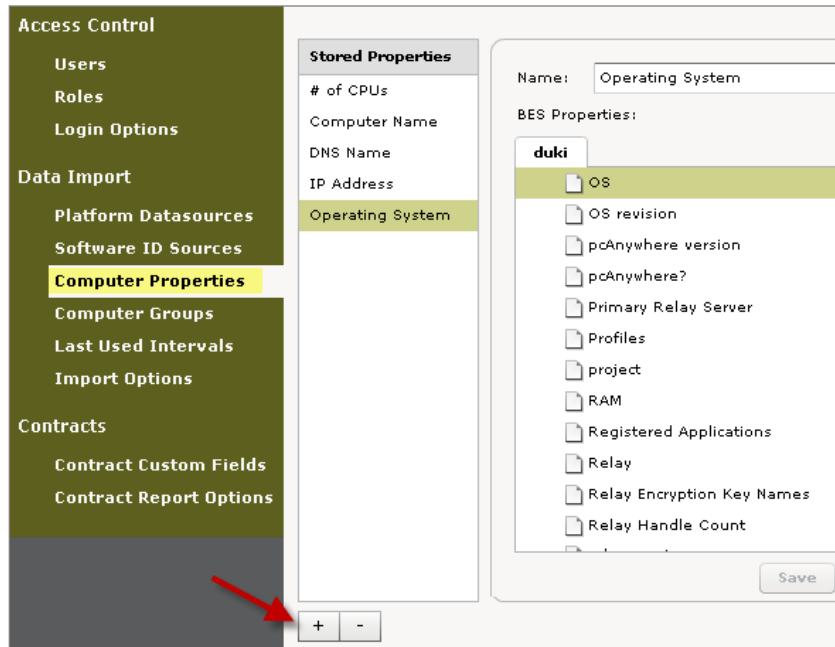
## Computer Properties

Computer Properties are properties already available on your Tivoli Endpoint Manager Server that must be available in the application for reporting. By default, SUA includes four primary computer properties from your Tivoli Endpoint Manager Server configured as the SUA Datasource: *Computer Name*, *DNS Name*, *IP Address*, and *Operating System*. You can select additional properties to be extracted from the Tivoli Endpoint Manager Server database and copied into the SUA application database each time a data import occurs.

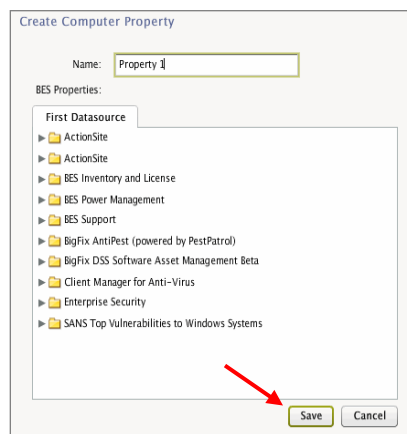
**Note:** *Any computer property that you want to use as a “unit of contract” analysis must be configured in Computer Properties before it can be used as a contract unit. If you want to create contracts based on a particular unit of licensing (such as number of CPUs or number of processor value units), you must configure the computer property that will be used to provide data on that unit of licensing. For more information about Contracts, see the SUA User’s Guide available on the BigFix support website.*



1. Select *Computer Properties* from the Data Import menu in the Control Panel. You can see the list of Stored Properties that have already been extracted, copied, and stored in your SUA application database.
2. Select one of the stored properties in the list. Each Stored Property corresponds to a list of related properties on your Tivoli Endpoint Manager Server.



3. To add a new property from the Tivoli Endpoint Manager Server to be stored in the SUA application database, click the *Plus Sign* located in the lower part of the window.
4. Select the property that you want to extract, copy and save from the Tivoli Endpoint Manager Server into the SUA application. Properties that are grayed out are not active on the Tivoli Endpoint Manager server. You can select these properties, but the data will not be updated unless the property is activated on the Tivoli Endpoint Manager server. If it has never been activated, the property is empty.
5. You can optionally edit the name of the new property in the Name field. This is the name that identifies this property in the SUA application.



6. Click *Save*.

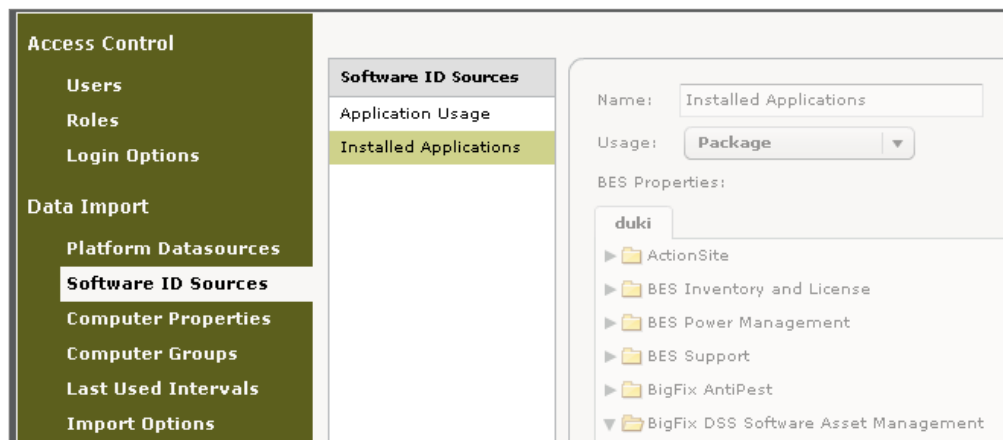
Repeat the above steps for each Tivoli Endpoint Manager property that you want to include in the SUA application. These properties are available in the various reporting windows for viewing, sorting, and filtering at a later time.



**Note:** Each time you add, change, or remove a Computer Property, you must wait for the next data import before the changes appear in the SUA application. You can also manually start the import process by selecting Run Now in the Import Options section. Only run ETLs after all new properties have been added.

## Software ID Sources

Software ID Sources, which include both *Package Properties* and *App Usage properties*, are properties used for the detection of software installation and usage. Package properties are used for aids of detection. App Usage properties track the usage of applications.



An SUA Software Catalog “package” is an artifact collected from computers, which is an identification string pushed from the computer to the Tivoli Endpoint Manager server by an analysis property. There are two types of packages used in SUA – *regular packages* and *definitive packages*. A regular package is an artifact that serves as a tie breaker to help distinguish the difference between two executables that look alike. A definitive package, which does not need an executable listed in the catalog, is the primary method for identifying the presence of software on a computer.

SUA uses a two-factor approach to software recognition. The system recognizes software from either the presence of:

- An executable file
- Package data from the computer

The presence of the executable file is the primary factor and can be used exclusively to detect the presence of the software. However, if the executable file is “ambiguous” and resembles another file in the system, then the second factor must be used. In some cases, the package data might be used as the primary factor and might be used exclusively to detect the presence of software. This is called a “definitive package”.

The SUA Software Catalog ships with pre-populated executables and packages that correspond to package data from the tasks and analyses that you deploy using your Tivoli Endpoint Manager server. You can add your own executables and packages and these can correspond to properties from tasks and analyses that you create on your Tivoli Endpoint Manager server.

When you add a "Package Property", the Tivoli Endpoint Manager property it is linked to becomes used as an additional source of package data.

## Computer Groups

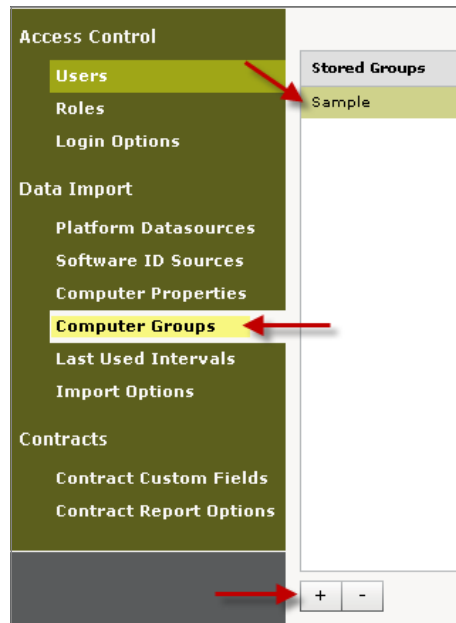
The Computer Groups feature allows you to define a group of computers for management and reporting. Computer Groups are defined by inclusion and exclusion "rules", and can be filtered by type, location, or purpose. For example, a Computer Group might contain highly secure computers, production servers, or be differentiated by geography, operating system, or organizational unit. Computer Groups that are designed as a Datasource can be used in the SUA application. You can also create your own groups in SUA.

You must have Edit Groups permission or be an Administrator to edit groups.

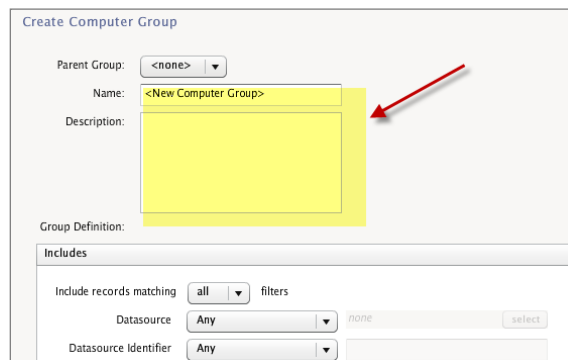
1. Select *Computer Groups* under the Data Import menu in the Control Panel.



2. You can select an existing Stored Computer Group to view its attributes, or create a new one by clicking the *Plus Sign* in the lower part of the window.



3. Enter the name of the new computer group, and an applicable description.



SUA allows you to create a number of inclusion and exclusion *filters* to define the parameters of your Computer Group. The dialog box automatically displays the Inclusion filters fields first.

Create Computer Group

Parent Group: <none>

Name: <New Computer Group>

Description:

Group Definition:

**Includes**

Include records matching: all filters

Datasource: Any none select

Datasource Identifier: Any

IP Address: Any

Computer Name: Any

DNS Name: Any

Operating System: Any

BES Group Membership: Any none select

**Excludes**

Save Cancel

The inclusion and exclusion boxes allow you to create filters for the following list of properties, as well as for any additional computer properties you have added to SUA:

- Include Records Matching
- Datasource
- Datasource Identifier
- IP Address
- Computer Name
- DNS Name
- Operating System
- Tivoli Endpoint Manager Group Membership

4. Select the filters that apply to your group and fill in a corresponding value for each selection.

**Example:** To create a Computer Group that includes exclusively Mac Operating System computers, select *Contains* from the *Operating System* pull down menu, type "Mac" in the corresponding box and click *Save*.

Includes (1 filters)

Include records matching: all filters

Datasource: Any none select

Datasource Identifier: Any

IP Address: Any

Computer Name: Any

DNS Name: Any

**Operating System: contains Mac**

BES Group Membership: Any none select

5. When you have selected an entry for each desired Inclusion filter, click the *Excludes* menu on the bottom left of the window. Select the applicable Exclusion Filters for your group, then click *Save*. Your new Computer Group is shown in the Stored Groups list.

Groups can be organized into a hierarchy. You may do this by selecting the parent when creating a new group, or by dragging one group onto another.

When you have created the initial parameters of your Computer Group, you may then create group membership filters, create and sort reports, and assign contracts.

For example, if you're adding a new contract for Adobe Photoshop licenses, you can *allocate* these licenses to a Computer Group that represents the marketing department. This allows you to determine if you own enough licenses for that group.

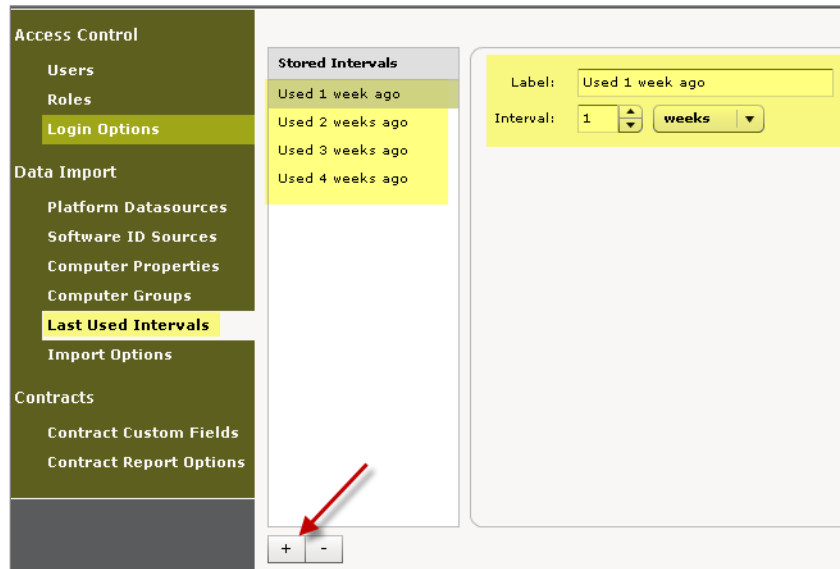
## Last Used Intervals

The Last Used Intervals feature defines time periods within which you measure software usage in your inventory. If the Last Used Intervals are 1 Week, 1 Month, and 6 Months, you can see how many computers used the installed software applications during each time periods. The resulting information can help identify unused licenses or eliminate unused software.

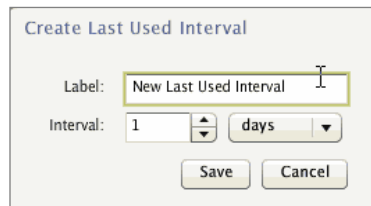
- Usage interval data is only available when the application Tracking task is deployed on your Tivoli Endpoint Manager Server.
- For any given Last Used Interval length, the Application Tracking task must be activated for at least that length of time for the data to be accurate.
- Last Used Interval calculations in your reports use the most recent Import timestamp as the basis for the interval. For example, an interval of 6 Months means "Frequency of use during the 6 months prior to the most recent import time."
- The Last Used Interval Used information portion of the SUA Content Site consists of Application Tracking task and Application Usage Information analysis.

Review steps 1-4 below to view existing Last Used Intervals or create a new interval:

1. Select *Last Used Intervals* from the Data Import menu in the Control Panel. The default SUA stores four intervals: *Last 1 Week*, *Last 2 Week*, *Last 3 Week*, and *Last 4 Week*. Click on any interval and view the accompanying fields on the right side of the window.



2. To create a new Last Used Interval, select the Plus Sign in the lower part of the window.
3. In the Create Last Used Interval dialog box, enter a new Label and select values for your new interval.



4. Click Save.

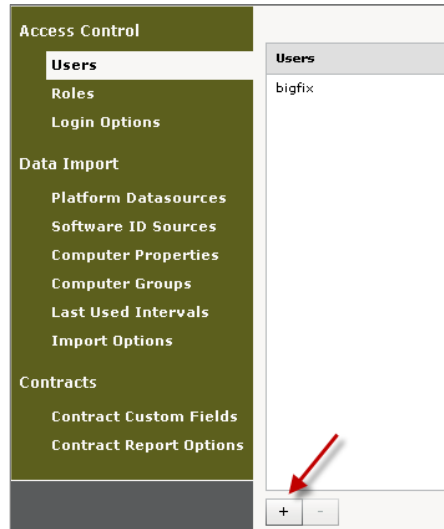
**Note:** Each time you add, change, or remove a Stored Interval, you must wait for the next data import before the changes are shown in SUA. You can also manually start the import process by clicking Run Now in the Import Options section.

## Access Control

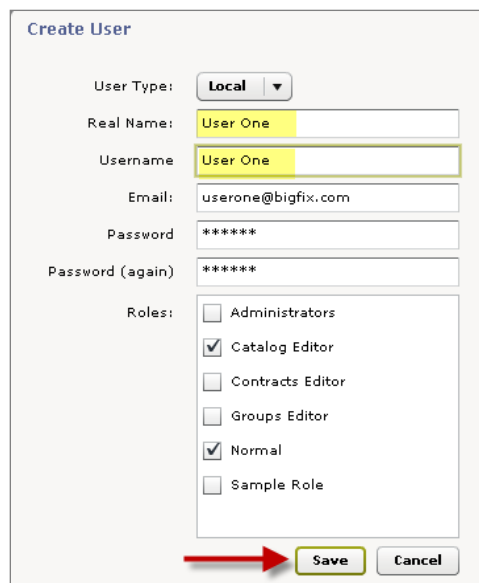
### Adding users

Users are defined as *Administrators*, *Normal Users*, *Contract Users*, *Software Catalog Editors*, and *Computer Groups Editors*. The roles or entitlements assigned to each User define how they can use the information collected by the SUA application. As an Administrator, you determine the functions that Users are allowed to access within the SUA application.

1. From the Control Panel, click *Users* under the Access Control menu. Click the *Plus Sign* in the lower part of the window to create a new user

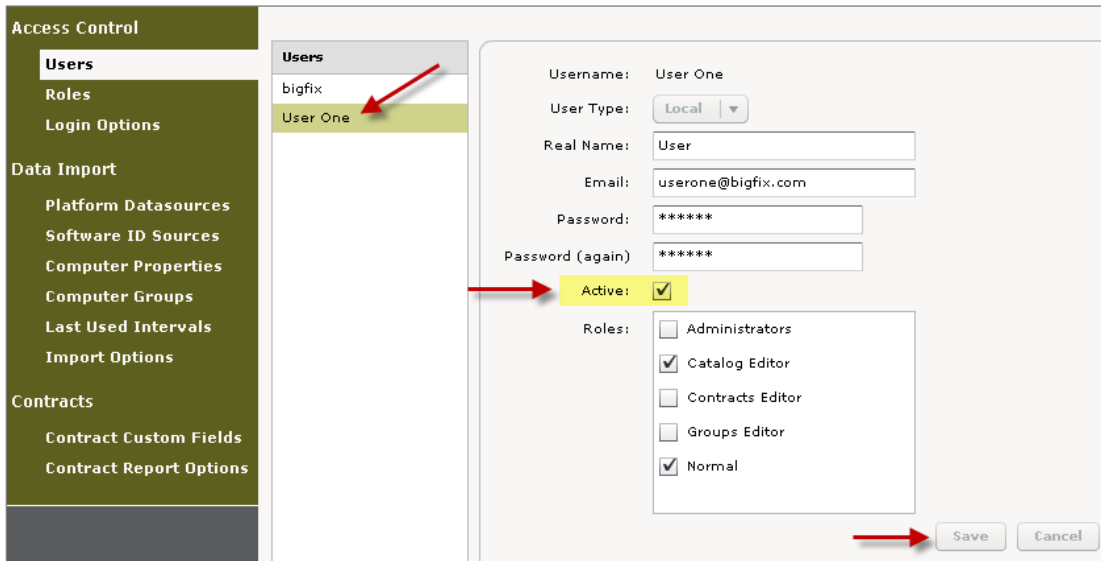


2. When the Create User window opens, fill in the Create User fields, and then check the boxes corresponding to the roles you assign to that User. The Password field length is configured on the Login Options tab in the Control Panel.



**Note:** *If during installation you indicated that you had Web Reports, this dialog box is shown differently: you can use WebReports users or create new users.*

3. Click *Save* and see your new User displayed under the Users menu.

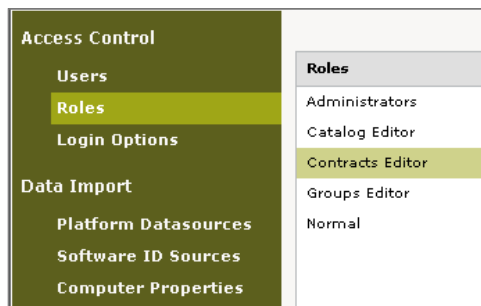


4. Click the *Active* box, then click *Save*.

**Note:** To remove users, select them and click the minus sign. If this user has created any Saved Reports and these reports are shared, the Saved Reports are removed from all users' view.

## Adding roles

SUA application Roles are a collection of designations that each correlate to a list of privileges. The Administrator assigns roles to each User according to the privileges they need to operate the application. Roles can be created and edited using the Roles section in the SUA Control Panel.



The table below provides a brief description of User Roles and Permissions:



Roles	Description	Permissions
Administrators	Can access all functions in the SUA application, including functions on the Control Panel. Can create, edit, and delete Users; can create datasources and run imports.	Administrator
Catalog Editor	Can only browse and edit the software identification catalog - cannot view actual inventory data, although summary statistics are shown in catalog user interface.	Edit Catalog
Contracts Editor	Can create and edit contracts and browse software catalog. Cannot view actual inventory data, although summary statistics are shown in read-only catalog UI.	Edit Contracts
Normal	Can browse through each tab in application and use view options, such as filters and columns. Cannot access Control Panel or make changes to Catalog or Contracts.	View All
Groups Editor	Can create and edit Computer Groups. (If this role is not visible in your application, you can create it from the steps identified below.)	Edit Groups

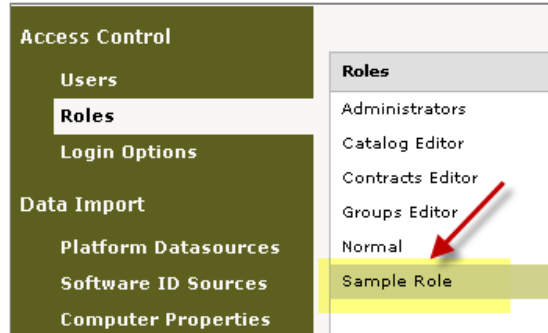
From the *Roles* menu under Access Control in the Control Panel, click each Role to view its attached permissions.

The screenshot shows a window titled 'Roles'. On the left, a list of roles is shown: Administrators, Catalog Editor, Contracts Editor (highlighted), Groups Editor, and Normal. On the right, the configuration for the selected role is shown. The 'Name' field contains 'Contracts Editor'. Under the 'Permissions' section, there are five checkboxes: Administrator (unchecked), View All (unchecked), Edit Catalog (unchecked), Edit Contracts (checked), and Edit Groups (unchecked).

You can add a new user role to the default list by clicking the *Plus Sign* in the lower part of the window. On the Create Role screen, select a name for your new role, and then assign specific permissions by checking the boxes. Click **Save**.

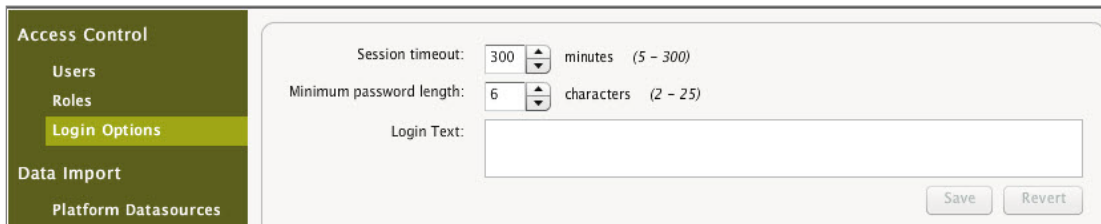
The screenshot shows a dialog box titled 'Create Role'. The 'Name' field contains 'Sample Role'. Under the 'Permissions' section, there are five checkboxes: Administrator (unchecked), View All (checked), Edit Catalog (checked), Edit Contracts (unchecked), and Edit Groups (checked). At the bottom right, there are 'Save' and 'Cancel' buttons.

Now view your new role in the Roles menu.



## Login Options

The Login Options section of the Control Panel manages session timeouts and password length rules. If there is no activity in the browser for a pre-determined period of time, the session terminates. In this window, you can change settings for session timeout, minimum password length, and enter login text. You can click *Save* after making changes, or click *Revert* to step back to the previous setting.



The screenshot shows the 'Login Options' configuration page. The left-hand navigation menu is the same as in the previous image, but 'Login Options' is now highlighted. The main content area contains the following settings:

- Session timeout: 300 minutes (5 - 300)
- Minimum password length: 6 characters (2 - 25)
- Login Text: (empty text input field)

At the bottom right of the configuration area are two buttons: 'Save' and 'Revert'.

# Appendixes

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## Uninstalling

To uninstall the SUA application, use the Microsoft Windows *Add and Remove Programs* Control Panel. This stops and removes SUA application services and removes the product components from your server computer.

However, the installation directory remains and several configuration and log files will remain in the event of a future re-installation. The BFInventory database on your database server and the EXE scan files on your Tivoli Endpoint Manager Server also remains intact. You must manually remove these data components to completely remove all SUA components from your environment.

Additional information about uninstalling SUA can be found in the [Tivoli Endpoint Manager Knowledge Base](#).

## Upgrading

SUA was previously referred to as DSS SAM. The SUA Version 1.3 installer contains a full installation of the web application and database component of the product. An installation of a previous version of SUA is not a pre-requisite. However, if a previous version of SUA is already installed in your environment, you may upgrade to version 1.3 *without* uninstalling the previous version.

To upgrade, download SUA Version 1.3 and run the installer on the computer where the previous version is running, ensuring that the SUA database server is running and accessible. The installer automatically detects the previous version in your environment and replaces it with version 1.3 in the same environment. After successful installation, log in to the SUA web application and confirm the build number in the lower right corner – it should read Version 1.3.0.592 for SUA Version 1.3. This validates that the correct build is installed and you're connected to the database.

If you have already upgraded your Software Catalog, upgrading SUA does not downgrade your Catalog.

**Note:** *New installations of SUA 1.3 use Simple SQL server logging on the BFInventory database. If you have installed a previous version of SUA, the BFInventory database uses "Full logging". As a result, your BFInventory.ldf file might become very large. When upgrading a previous installation to version 1.3, the logging mode of the BFInventory database is be changed. It is advisable to change the logging mode of the BFInventory database to "Simple Logging". For more information, see the documentation of Microsoft SQL Server or ask your database administrator. After changing to simple logging, you can choose to shrink your BFInventory log file to reclaim disk space.*

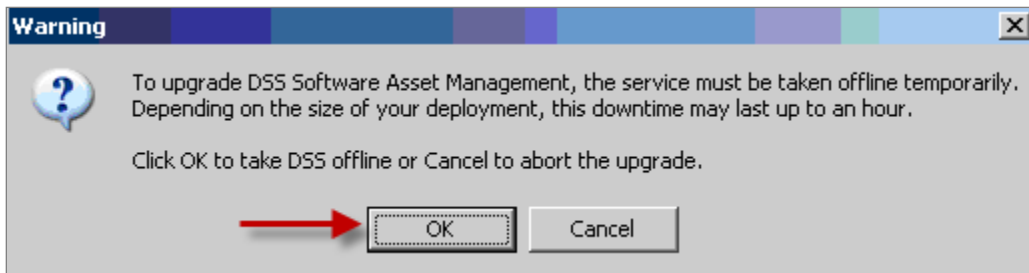
## General information about upgrading

The upgrade process performs a full migration of all DSS data to the newest format. Although this process has been tested under a variety of configurations, you should back up your existing DSS database *before* performing an upgrade.

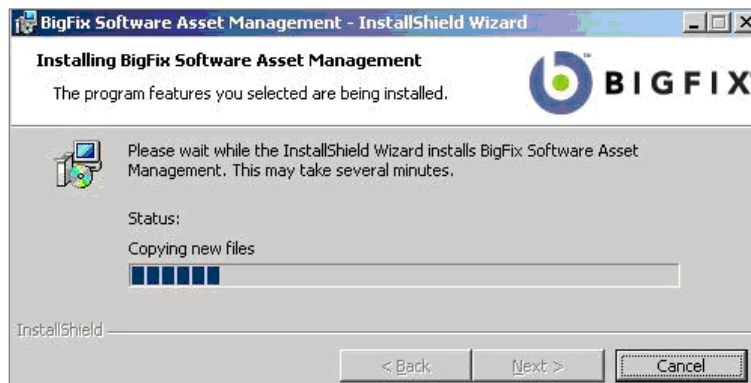
To perform an upgrade, you must enter the password for the Windows account configured to host the DSS server. You must enter this password at both the beginning and end of the upgrade process.

The upgrade process requires administrative privileges on the database server that will host your SUA database. Before the Pre-Upgrade process is run, the installer shows you some standard dialogs:

- InstallWelcome (click “Next” or “Cancel”)
  - LicenseAgreement (must accept to proceed)
  - ReadyToInstall (last dialog shown before installation process)
1. The upgrade tool displays a message explaining that the upgrade process takes the DSS server offline temporarily and asks if you want to continue. Click *OK* to proceed.



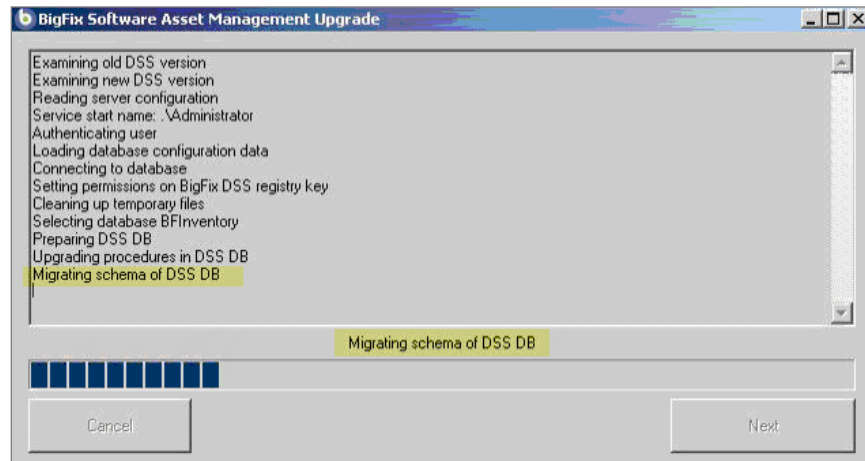
2. The upgrade tool asks for the password of the account used to host the DSS service. Enter the password to continue. You must enter this password again at the end of the upgrade. If you do not have the password, you can cancel the upgrade here.
3. In the unlikely event that a data import is in progress when you attempt to upgrade, you can cancel the upgrade or wait for the data import to complete.
4. The upgrade tool closes SUA services and suspends regularly scheduled data processing. Click *OK* to continue.
5. The upgrade tool closes and the installer starts to run. This replaces your SUA server files with the new version.



6. The upgrade tool launches to perform data migration and reconfigure DSS services.
7. The upgrade tool asks you for your password again. You must enter the same password entered earlier.

*Note:* At this point, the upgrade can no longer be canceled.

8. The upgrade tool migrates your DSS database and reconfigure your DSS services. This might take several minutes.



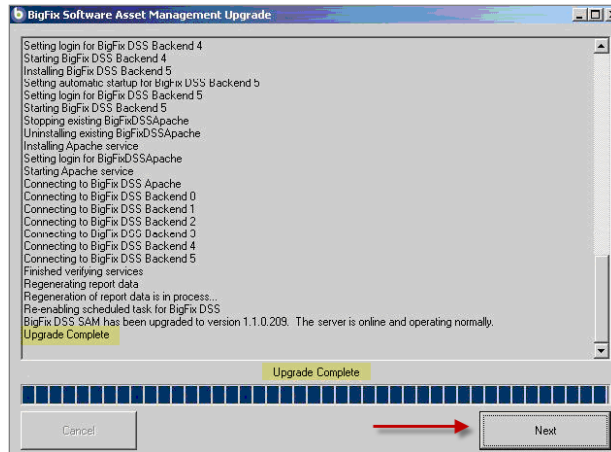
9. The upgrade tool restarts your DSS services and verifies that they are working correctly.

```

C:\Program Files\BigFix Enterprise\DSS\ruby\bin\ruby.exe
"bin/bulkload.exe" "db/catalog_data/app_dictionaries.csv" "localhost" BFINventor
y tmp_app_dictionaries [AUTH NT]
Established DB connection.
Loaded dataset.
Records successfully written.
true

C:\Program Files\BigFix Enterprise\DSS\rails>ECHO OFF
Established DB connection.
Loaded dataset.
Copied 463 rows...
Copied 926 rows...
Copied 1389 rows...
Copied 1852 rows...
Copied 2315 rows...
Copied 2778 rows...
Copied 3241 rows...
Copied 3704 rows...
Copied 4167 rows...
Copied 4630 rows...
Records successfully written.
Established DB connection.
Loaded dataset.
Copied 26924 rows...
Copied 53848 rows...
  
```

10. The upgrade process is complete. The DSS server starts performing a data import immediately. The DSS server is online, but you are redirected to the data import lockout window until the process completes. As the upgrade process does not initiate an import, you should reset the sequence and run a full import.



## Ensuring accuracy in your software inventory

The SUA Software Catalog uses a software detection methodology based on executables. Because some executables are sold separately as well as commercially bundled with other products, these executables might not map definitively to a single software title version (STV). For example, Microsoft Word is available as both a standalone product and bundled in a variety of Microsoft Office editions (Home, Business). To enable the correct software correlation, SUA also pulls information from the Windows registry, which is placed there by the installer. These installation artifacts are called “packages”.

### Definition of a Package

A Package is a secondary artifact that is collected from computers, which is an identification string pulled from the Windows registry. The role of software Packages within the SUA Software Catalog is to serve as a tie breaker to help distinguish the difference between two executables that look alike.

For “ambiguous” software title versions (such as the example of Microsoft Word), it is important to have associated packages that reflect the exact software packages you have installed. To address this, custom-create or add packages from your systems.

The preferred method for identifying ambiguous entries is through the Ambiguous Entries link in the Software Catalog. However, additional diagnostic information about ambiguous elements can be found in the following log files, which can be opened using a spreadsheet tool.

```
C:\Program Files\BigFix Enterprise\DSS\rails\tmp\unknown_packages.csv and
C:\Program Files\BigFix Enterprise\DSS\rails\tmp\popular_ambiguous_exes
```

The process for adding packages from your systems is as follows:

Install and configure SUA on your system and run the first ETL, then navigate to the catalog management tab in the SUA Software Catalog. For each title version listed in the Ambiguous Software Table, do the following:



1. Navigate to the particular software title version in the UI.
2. On the left side of the window under Packages, click *Add*.
3. Click *Unmapped Packages* in the middle of the dialog box.
4. Search the list for all packages that belong to this STV.
5. Select all applicable items, and then click *Done*.
6. Edit the packages to make them generic. An asterisk ( \* ) can be placed at the end of the name to cause the package to match *any* string starting with the package name up to the asterisk.

For example:

**Before:** Microsoft Project Professional 2002 - 10.0.1342.23587  
**After:** Microsoft Project Professional 2002 - 10.\*

After you have configured everything, resolve ambiguities in your software catalog. See the Software Catalog *Editor's Guide* for more information about how to handle ambiguous software in your catalog.

## Additional documentation

In addition to this publication, additional documentation is also available for usage and support of this product:

- SUA User's Guide
- SUA Quick Start
- SUA Catalog Editor's Guide
- SUA Implementation Guide
- Release Notes

## Technical support

Tivoli Endpoint Manager technical support site offers a number of specialized support options to help you learn, understand, and optimize your use of this product:

- [BigFix Support Site](#)
- [Documentation](#)
- [Knowledge Base](#)
- [Forums and Communities](#)







*Part Five*

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