BigFix
Console Operator's Guide

Special notice

Before using this information and the product it supports, read the information in Notices (on page 359).

Edition notice

This edition applies to BigFix version 11 and to all subsequent releases and modifications until otherwise indicated in new editions.

Chapter 1. Accessing the console

The console is the visible face of BigFix, used by the operator to monitor and repair networked computers running the BigFix client.

To begin using the console, you must be authorized. There are two kinds of console user:

- **Operators**, who manage the day-to-day operation of the program, including Fixlet management and action deployment, subject to the management rights assigned by a site administrator or master operator.
- **Master Operators**, who are operators with the added authority to assign management rights to other console operators. Master operators can also:
  - Create new computer settings, which allow clients to be labeled for various groupings.
  - Create or edit retrieved properties, which are used to filter and sort computers.
  - Change the BigFix client heartbeat, to optimize the program's performance.
  - Subscribe or unsubscribe from sites.
  - Create custom actions (if that option was selected for this deployment).

When you have your credentials, you are ready to operate the console:

1. Start the console by double-clicking its desktop icon or select it from the Programs menu: **Start / Programs / BigFix / BigFix Console**.
2. Log in to the console using one of the following notations for the username:

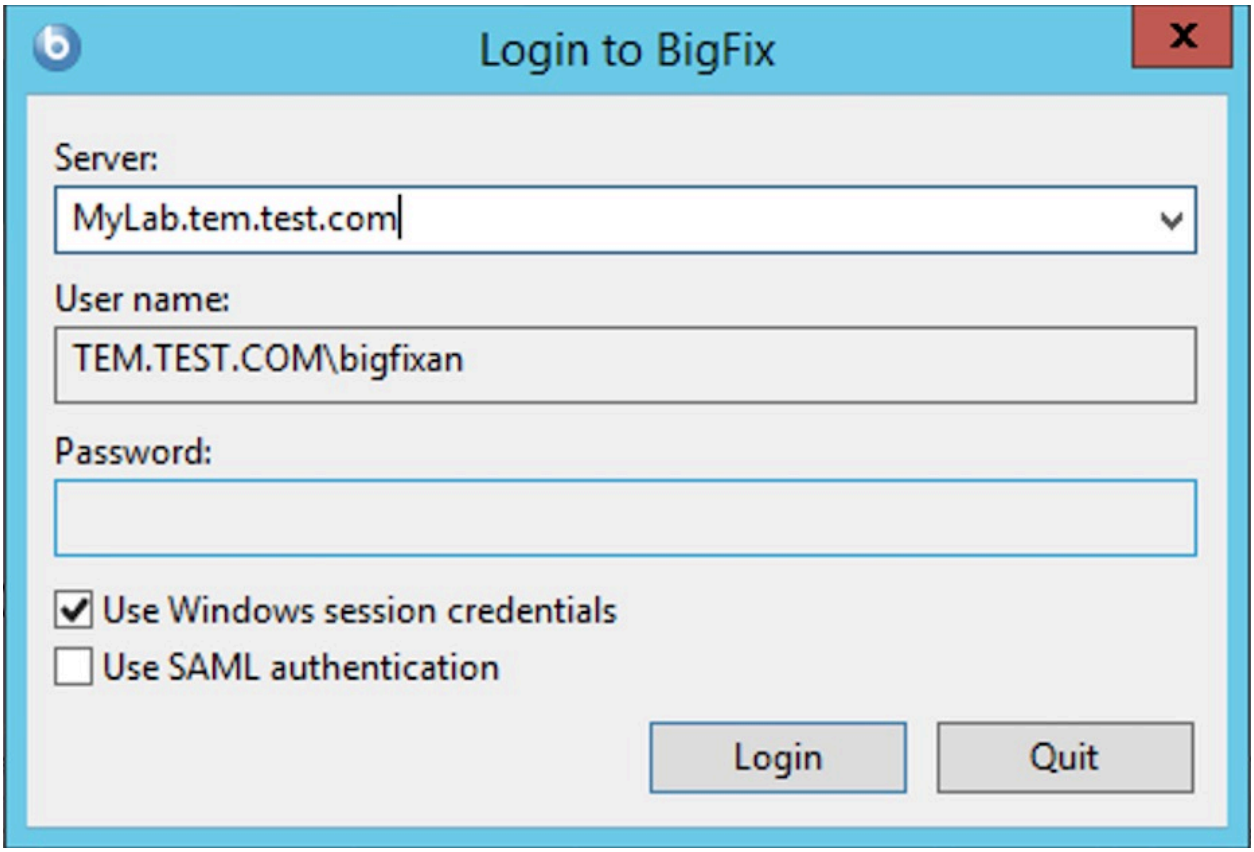
   username
   username@domain
   domain\user
3. After you initialize the action site, the console opens and begins to import Fixlet. After it finishes, it forwards the Fixlets to the installed clients, which evaluate them and return the results. This process can take a few minutes.

Console authentication using Windows session credentials

You can log in to the BigFix console using your Windows Active Directory user credentials if the following conditions are met:

- You integrated BigFix with the Active Directory domain as explained in Integrating the BigFix Windows server with Active Directory.
- The system where the BigFix console is installed belongs to the Active Directory domain.
- Your user ID is defined as:
    - BigFix operator with the necessary authorizations to use the console.
    - Active Directory domain user on the system where the console is installed.

If these conditions are satisfied, when you access the console, the login window is automatically populated with your domain credentials and you can click **Login** to enter the console.



Note: This authentication method is valid only for BigFix servers running on Windows operating systems.

Introducing the BigFix console user interface

The Main Console window for BigFix has a panel on the left containing buttons and navigation trees called the **Domain Panel**.

It is designed to group content into collections pertaining to specific operator domains, such as software patching, malware protection, power management, and so on. After a domain has been chosen and topics are selected from the navigation tree, a list of related content is shown on the right. From this list, specific items can be selected for a more detailed view in the Work Area beneath the list. Here is a simplified breakdown of some of the features you might encounter in a typical session:

Domain Panel

This vertical panel on the left provides a high-level view of the extensive content, allowing you to quickly subdivide the information by major IT functions. Within each domain, this panel presents navigation trees that make it easy to zoom in on Fixlet, reports, analyses, and other content. This panel might be subdivided into sections, depending on the style of the domain. Some of these sections might include:

Content Filters

If it exists, this section is at the top and provides various content filters and reports that are a part of the selected domain. Click the disclosure icon to the left (either a triangle or a plus sign) to produce a navigation tree to refine your choices.

General Content

This section lets you navigate all the content in the domain. The content might include Fixlet, tasks, actions, analyses, and computers, all collected from various sites. Click the disclosure icon to the left (either a triangle or a plus sign) to open up the tree.

Domain Buttons

At the bottom of the Domain Panel, these buttons represent the set of domains that are currently available to you. When you subscribe to a site, it is automatically entered into the correct domain. If a new domain is required, a button for it is added to this group. At the bottom of the buttons is a control that allows you to adjust the number of buttons to display.

Console Toolbar

This toolbar allows you to navigate back and forth through the items you have selected from the Domain navigation tree. These **Back** and **Forward** buttons act like their counterparts in a browser, and are an important method for navigating through your content. In addition there are buttons that allow you to display items you might have hidden and items that are not currently relevant to any of your clients (this allows you to view all the available content

for research or cloning purposes). There is also a refresh button that reloads content from the database for the console display.

List Panel

This is a listing of the items specified by the content filters and the navigation trees in the Domain Panel. You can sort this list by clicking the column headers and you can rearrange the headers by dragging them left or right. In addition, you can right-click the headers to see a pop-up menu containing a list of all the possible fields. Check those you want to use as headers.

Context Menu

This is the menu that opens when you right-click any item in a list. Different lists have different context menus.

Work Area Toolbar

This bar contains context-sensitive buttons that can run various actions based on the content of the current work area. It also contains two icons, upper right, that let you maximize or detach a specific document. Detaching allows you to examine more than one document at a time.

Work Area

Below the List Panel and the Work Area Toolbar is the Work Area. When you click an item from the List Panel, the console opens a detailed document in this window. The following list describes, for example, the elements of a Fixlet:

Document tabs

Each type of document has a unique set of tabs to go along with it. For a Fixlet, the tabs include items such as Description, Details, Applicable Computers, and Action History.

Fixlet

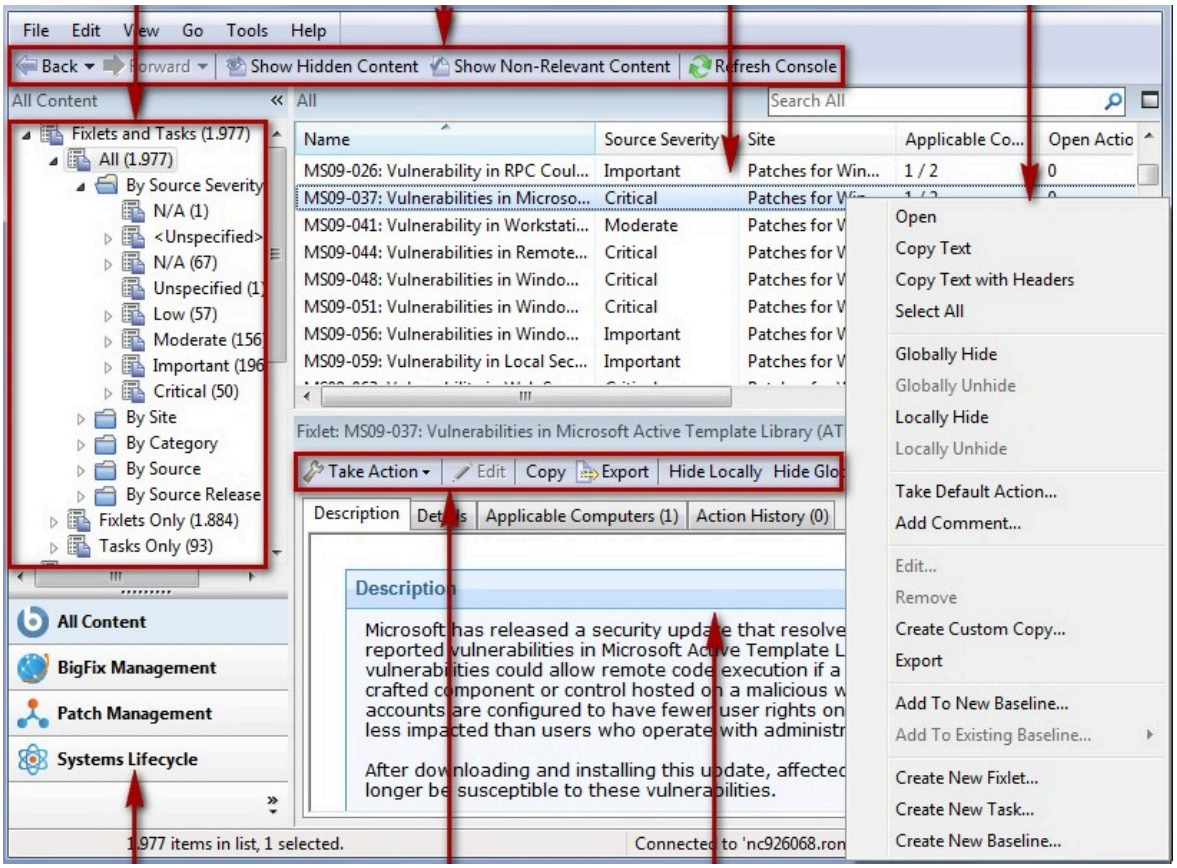
When a Fixlet is opened from the list, the default Description tab is selected and the Fixlet document explains the issue in plain English.

Action Button

A Fixlet document typically contains at least one Action, represented by a link in the Work Area (also available from the Take Action button in the Work Area Toolbar). Click it to deploy the Action across your network.

Below is a screen shot from a typical session. A subset of Fixlets and Tasks have been selected from the Domain navigation tree, and the user is viewing the description of a Task opened from the list panel:

Domain Panel **Console Toolbar** **List Panel** **Context Menu**



Domain Buttons **Work Area Toolbar** **Work Area**

In general, your workflow proceeds first from the Domain Panel to the List Panel. After selecting an item from that list, you follow the instructions in the Work Area to complete the task.

How you proceed depends on the content type. Fixlet describe problems that have been discovered on one or more clients. Analyses present you with information collected from the clients on your network. The computer branch of the tree allows you to examine specific clients under your control.

For example, if you select Fixlets from the Domain Panel, a list of the relevant Fixlets is shown in the List Panel. Select one from the list and it is shown in the Work Area below. The Fixlet document presents you with a short, clear explanation of a problem that is currently affecting your clients. If you want, you can inspect the underlying code used in the relevance expression and the proposed actions by clicking the Details tab. When you have decided to deploy the action to the affected computers, click the action (represented by a button in the Work Area Toolbar or a hyperlink in the Work Area) and follow the prompts. After deploying the action, the affected clients are remediated and no longer report the problem. At that point, the Fixlet is removed from the relevant Fixlet list.

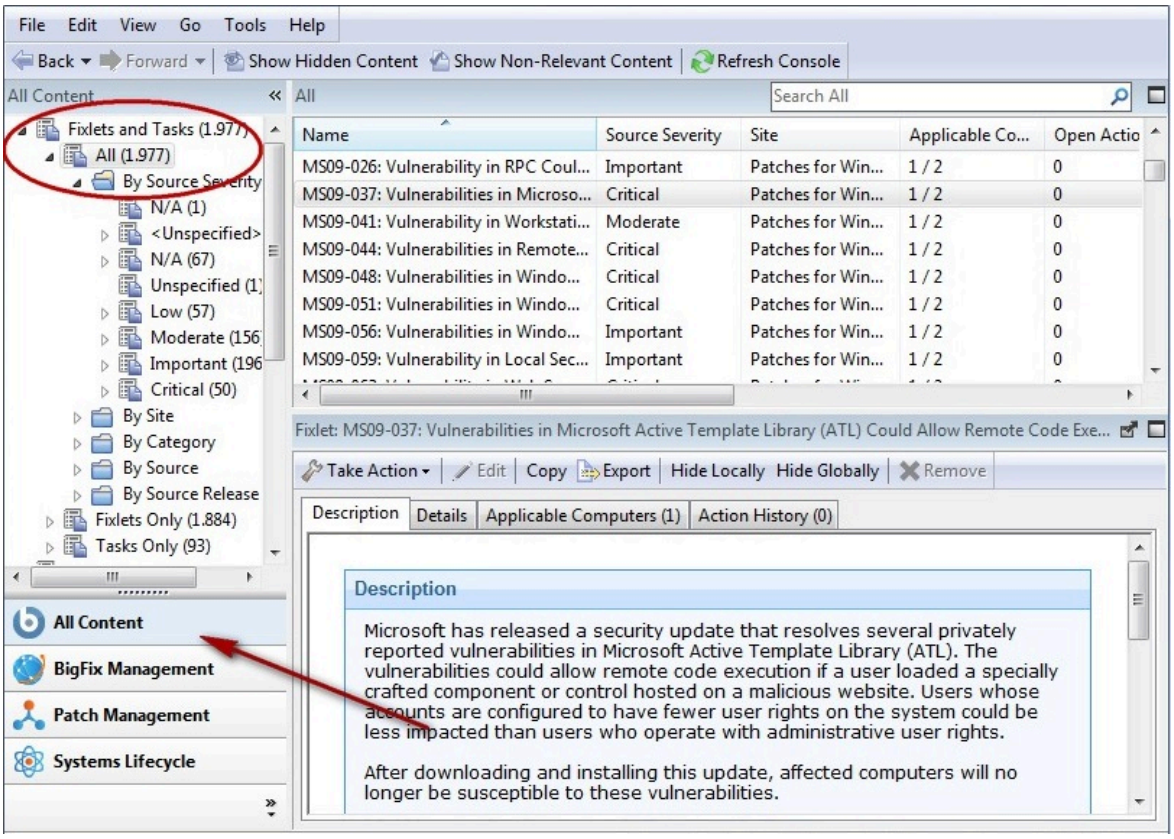
You can set preferences that govern how responsive and secure you want your network to be. To adjust the default values, select **Preferences** from the **File** menu.

A sample console operator's workflow

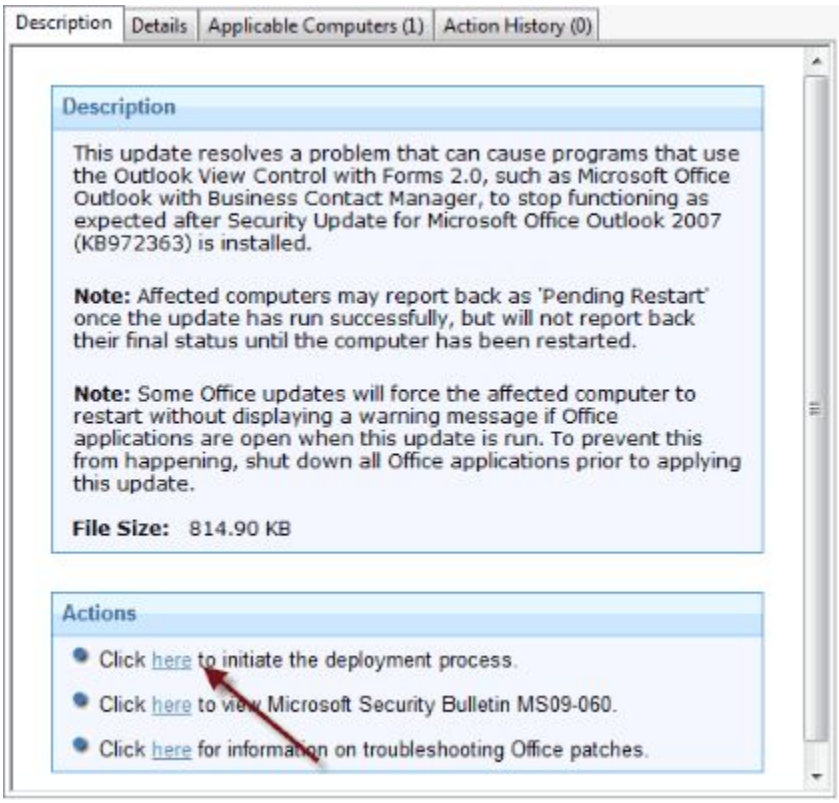
BigFix is a powerful and feature-packed program that might seem overwhelming to a new user. However, when you understand the typical workflow, the operation becomes straightforward and intuitive.

Let's run through a sample session:

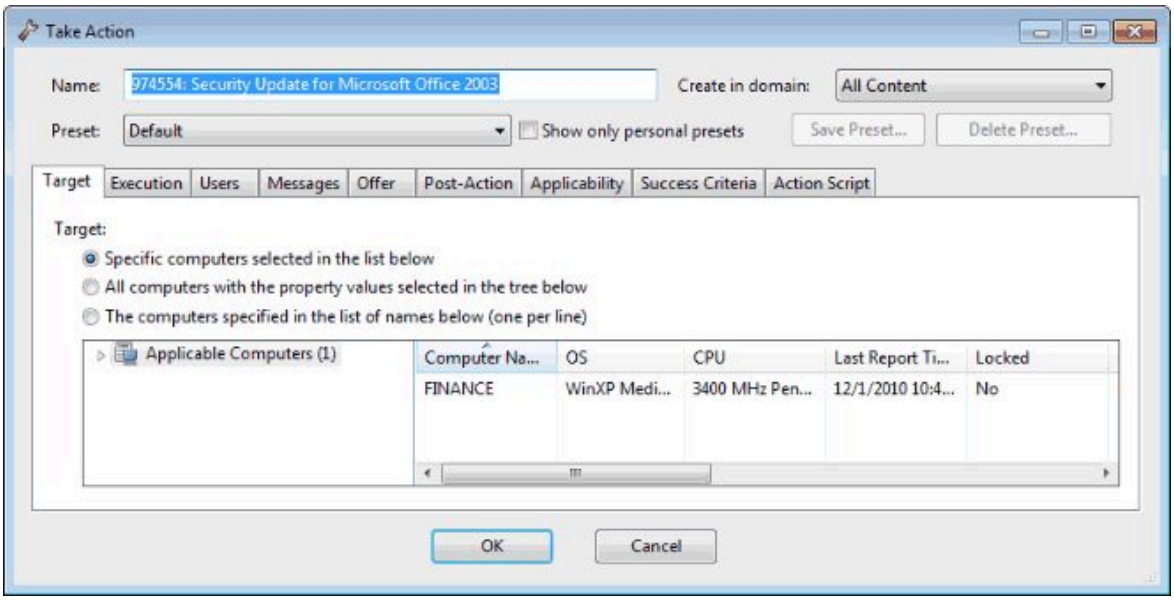
1. Start up the BigFix Console.
2. From the Domain Panel on the left, click the button labeled **All Content**, which lets us view all subscribed sites. Then click the **Fixlets and Tasks** item at the top of the Domain panel. This then displays a list of the Fixlet and Tasks that are currently applicable to your network in the List Panel to the right.



3. From the List Panel, click a Fixlet of interest. The corresponding document opens in the Work Area below the list. This is the text of the Fixlet, which gives you the information you need to decide on deployment, along with the specific actions to take.



4. At the bottom of the message you find one or more links that initiate actions to fix the affected computers. Click the action that seems most appropriate. A **Take Action** dialog box opens.



5. Use the **Target** tab to select any subset of affected computers you want to target with the action. There are several techniques for deploying actions:

   Specific computers selected in the list below

   The first targeting button lets you select the computers you want from the panel below right, which lists all those computers for which the Fixlet is currently relevant. The right-click menu allows you to select all the computers in the list. This technique limits the Fixlet action to the specified list.

   All computers with the property values selected in the tree below

   Choose the second button to take actions on computers with a set of specified properties. Until the expiration of the action period, whenever a computer satisfies the given properties it is targeted. As with all actions, only the affected computers actually receive the action.

   The computers specified in the list of names below

   Choose the third button to specify a list of computers.
6. Use the rest of the tabs to prepare your action, including execution schedules, client messages, extra scripting and more, then click the **OK** button. For more information, see the article on the **Take Action** dialog.
7. When you supply your password, the Fixlet action is deployed throughout your network, and is applied specifically to each computer that needs it, subject to any filters you put in place.

This is the process that you use for typical computer maintenance and remediation. As you explore the interface, you will discover that it can also help you remediate security issues, inventory your computers, manage your users, and maintain a detailed audit trail of every patch and upgrade. As varied as these tasks are, they are all accomplished with a similar workflow. You should experiment to learn more about the power of this interface.

Chapter 2. Fixlets and Tasks

Introducing Fixlets and Tasks

Fixlets and Tasks are central to BigFix.

Each Fixlet and Task has a set of Relevance statements that describes the conditions for its applicability to a computer. Those statements can be used to identify computers that exhibit a set of characteristics, such as having a certain operative system with a certain version of a program installed on it.

By evaluating the Relevance statements of a Fixlet (or Task), a BigFix Client can determine if the computer it is running on has an issue or a vulnerability. In other words, Fixlets and Tasks use Relevance statements to describe what computers they are "applicable" to.

Each Fixlet and Task has at least an "action" associated to it. Each action consists of a set of Action statements, which are the commands that the BigFix Client can execute. By running the Action statements of a Fixlet (or Task), the BigFix Client can perform maintenance operations, fix issues, remediate vulnerabilities, and more.

The action of a Fixlet or Task is only performed if it is "issued" by a BigFix "operator" to a computer with the BigFix Client installed on it. A BigFix Client can only run the action if the corresponding Fixlet (or Task) is relevant on its computer.

A BigFix operator can see what Fixlets and Task are "relevant" on what computer and choose to apply them. For a given Fixlet (or Task), a BigFix operator can target all computers that it is relevant on, or enumerate a specific set of target computers.

In order to apply a Fixlet (or Task) to the chosen set of computers, which can be determined dynamically or not, a BigFix operator will create a BigFix "action".

As an action propagates through your network, you can track its progress with the BigFix Console, Web Reports, or the WebUI.

Depending on how the action is targeted and issued, a BigFix Client can receive the action directly or determine that it is a relevant target for the action. It then proceeds to run the Action statements written in the Fixlet (or Task) associated to that action.

After an action was issued to fix an issue identified a Fixlet on a computer, if the action ran successfully, that Fixlet becomes not relevant.

If a Fixlet (or Task) was relevant on a computer and then, due to a BigFix action or to conditions changing on that computer, it becomes not relevant, it is said to have been "remediated" on that computer.

The BigFix Client continuously evaluates the relevance of Fixlets and Tasks, so if something changes on its computer and, for example, a Fixlet that was previously applied becomes relevant again, a new action can be issued to apply it again.

They are both packaged with an **Action script** that can resolve the issue with a simple mouse-click.

Fixlets and Tasks differ mainly in how they get resolved. A Task comes with one or more Action scripts that help you adjust settings or run maintenance tasks. It generally stays relevant after its Action script has been run. Tasks are designed for reapplication and as a consequence, they are often persistent.

Fixlets and Tasks allow you, as a BigFix operator, to find and fix issues at once. Most have a "default action" that can be issued with just a few clicks. They can both be grouped into **Baselines**, allowing higher levels of automation.

If you create a Baseline of Fixlets or Tasks which all contain default Actions, you can turn the tedious chores of maintaining a corporate policy or common operating environment into a single-click operation.

In typical operation, Fixlet relevance contributes to the overall baseline relevance; Task relevance does not.

Similarly, Actions created from a Baseline can be composed of both Fixlet and Task Actions, and typically only the relevance of the Fixlet Actions contributes to the decision to run the group.

These are defining features of Fixlets and Tasks. The following table summarizes the differences:

	Fixlet message	**Task**

Relevance interpretation:	Machine is in remediable state	Action is available to run in this context
To establish success of remediation:	Relevance becomes false	Action runs to completion
Contributes to Baseline Relevance?	Yes	No
Contributes to Group Action execution?	Yes	No

At any time, you can open a Fixlet or Task to inspect the underlying Relevance expressions that are used to target the Clients, as well as the Action scripts that are designed to address the issue. The language is human-readable to give you a high degree of confidence in both the applicability of the trigger and efficacy of the remedial Action. You can also see exactly which computers in your network are affected by each Fixlet or Task. When propagated, you can then view the progress and ultimate history of each Action taken on a Client-by-Client basis.

Differences between Fixlets and tasks

If you look at the details in the Fixlet and task definition on the BigFix console, you see the same entries. What makes the difference between the two are the scope and the default behavior.

For what concerns the scope:

- Fixlets are used for fixing lack of compliance to enforced rules, in a few words, a Fixlet takes a known "broken" condition and fixes it.
- Tasks are configuration items to run, in other words, a task takes a "not-necessarily broken condition" and changes it to something else that is "not-necessarily fixed".

For example:

- A Fixlet would be `Update AntiVirus definition`.
- A task would be `Run Antivirus scan`.

For what concerns the default behaviour:

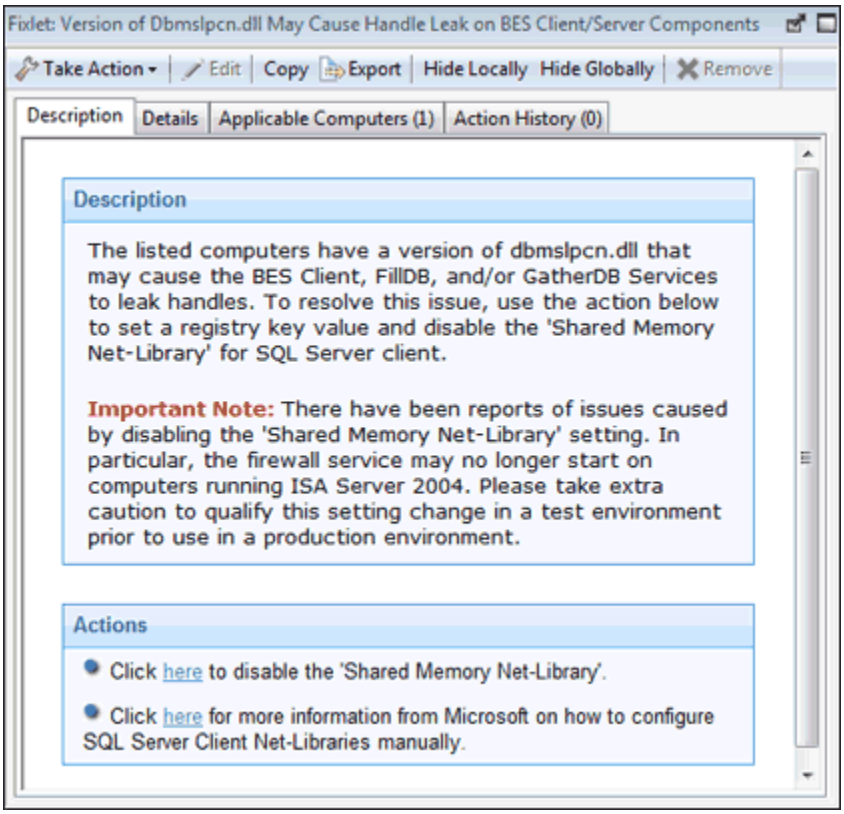
- When a Fixlet finishes its action script, it checks the relevance to make sure it has gone from true, the Fixlet is relevant, to false, whatever was broken is now fixed, and reports back **Fixed** when it is done.
- When a task finishes its action script, it does not check the relevance again. If all the lines in the action script completed then the client considers that action successful and reports back **Complete**. For this reason, as a best practice, you are suggested to set success criteria for the action run by the task to ensure that the task runs and that it was successful.

Viewing Fixlets and Tasks

How to display a Fixlet or a Task.

1. From the navigation tree in the Domain Panel, click the icon labeled **Fixlets and Tasks**.
2. From the resulting List Panel on the right, click an item to open it.

The body of the Fixlet message is shown in the Work Area (click the **Description** tab if not already selected).



When selected, each Fixlet or Task has a window of its own.

Each Fixlet or Task comes with four tabs in the Work Area:

- **Description:** This is a page providing a descriptive explanation of the problem and one or more Actions to fix it. The Actions are represented by links at the bottom of the description page. Click an Action to open the Take Action dialog, which allows you to further target or schedule the Action. If you accidentally click an Action hyperlink, before the actual deployment, you always get a chance to modify (or cancel) the Action.
- **Details:** This dialog contains the Fixlet/Task properties such as category, security ID, download size, source, severity, and date. It also lists the code behind the Relevance expressions and the Actions. At the bottom of this dialog there is a text box for you to enter a comment that remains attached to this item.

- **Applicable Computers:** This is a filter/list of all the computers targeted by the selected Fixlet or Task. You can filter the list by selecting items from the folders on the left, and sort the list by clicking the column headers.
- **Action History:** This is a filter/list of any Actions that have been deployed from this Fixlet or Task. If the item is new, there are no Actions in the list. Like the other filter/lists in the Console, you can filter the Actions using the left panel, and sort them by clicking the column headers above the right-hand list.

Monitoring Fixlets and Tasks

When a Fixlet or Task becomes relevant somewhere in your network, BigFix adds it to the list available under the **Fixlets and Tasks** icon in the Domain Panel navigation tree.

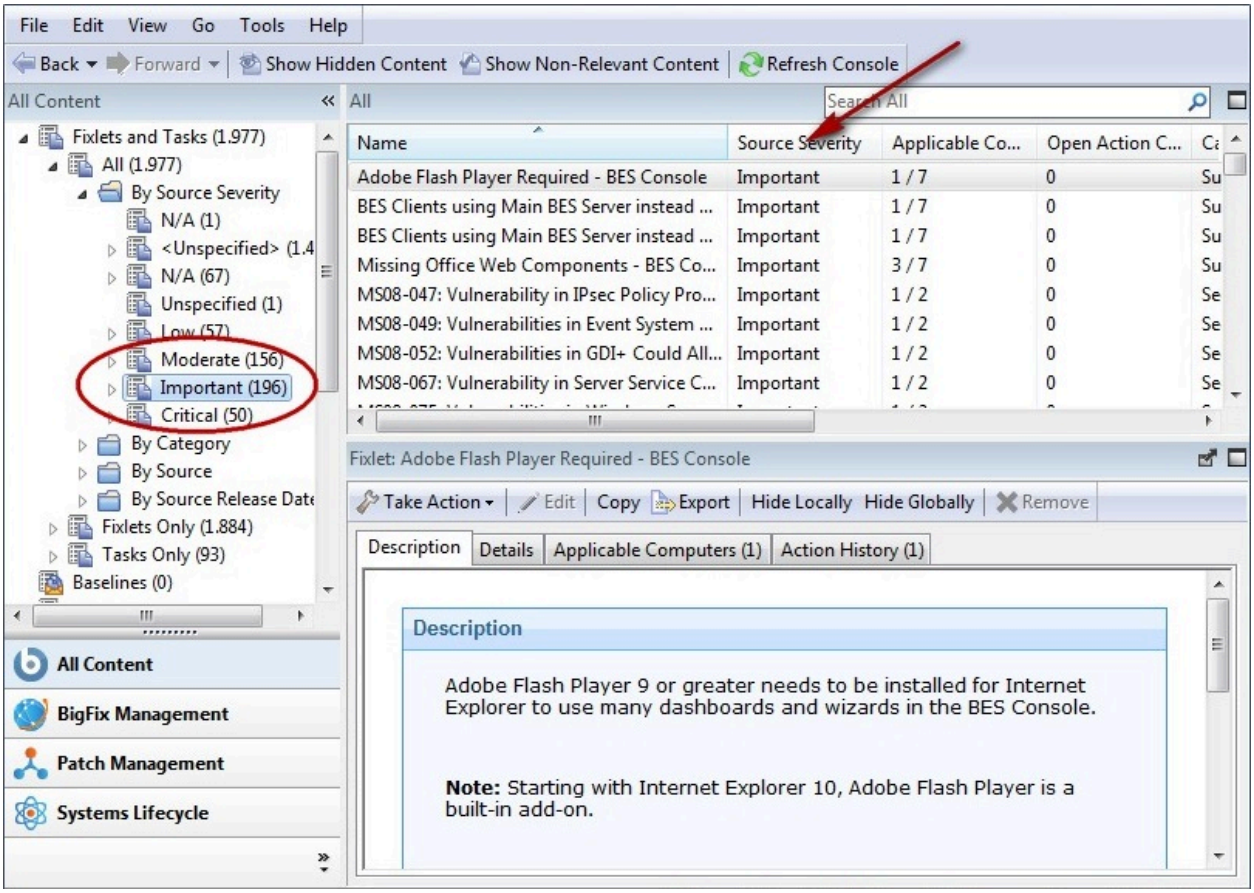
You can filter this list by opening the icon and clicking the subcategories underneath. Each icon represents data groupings that you can use to narrow down the items in the List Panel on the right. Then, in the listing area itself, you can sort the items by clicking a column heading.

The list headers include the following information:

- **Name:** The name assigned to the Fixlet message by the author.
- **ID:** A numerical ID assigned to the Fixlet message by the author.
- **Source Severity:** A measure of how serious a Fixlet message is, assigned by the Fixlet author. Typical values are Critical, Important, Moderate, or Low.
- **Site:** The name of the site that is generating the relevant Fixlet message.
- **Applicable Computer Count:** The number of BigFix Clients in the network currently affected by the Fixlet message.
- **Open Action Count:** Number of distinct actions open for the given Fixlet message.
- **Category:** The type of Fixlet message, such as a security patch or update.
- **Unlocked Computer Count:** The number of unlocked computers affected by the Fixlet.
- **Download Size:** The size of the remedial file or patch that the action downloads.
- **Source:** The name of the source company that provided the Fixlet information.
- **Source ID:** An identification number assigned to the Fixlet to relate it back to its source.
- **Source Release Date:** The date this Fixlet message was released.

Note: If the height of the Domain Panel navigation tree exceeds the maximum scroll bar limit of 32767, scrolling past 32767 can behave unexpectedly. This could happen when displaying the available list **By Source Release Date**, under the **Fixlets and Tasks** icon.

For example, you might filter the Fixlet list by opening the **Source Severity** folder and selecting **Important** to filter out less urgent Fixlet messages.



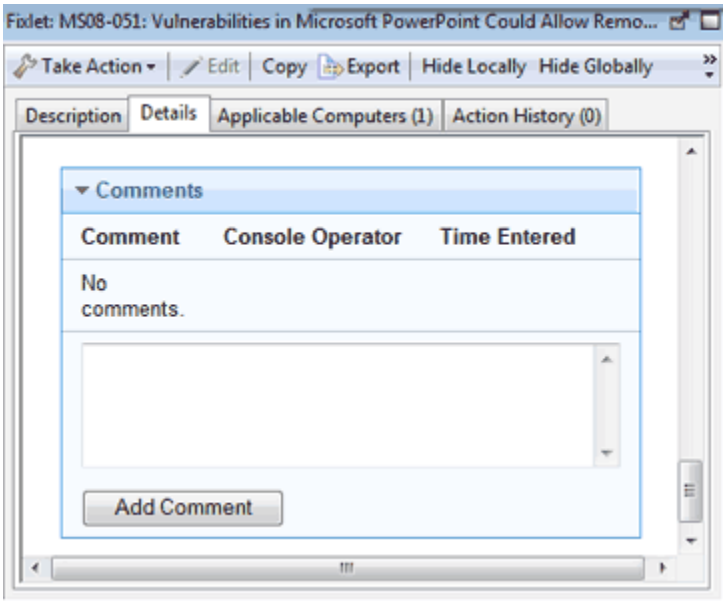
Then you could sort the Fixlet messages by **Applicable Computer Count** (which shows the number of affected computers) to find which Fixlet messages are relevant to the greatest number of computers. If you do not see one of the columns listed above, right-click in the Fixlet header and select it from the pop-up menu.

Commenting on Fixlets and Tasks

You can attach a comment to a Fixlet or Task that other operators can read.

Perform these steps:

1. From the Domain Panel, select **Fixlets and Tasks** from the navigation tree.
2. Select a Fixlet or Task from the List Panel on the right by clicking it.
3. From the document panel below, select the **Details** tab and scroll to the bottom.



4. Type your comment into the text box and click the **Add Comment** Button.

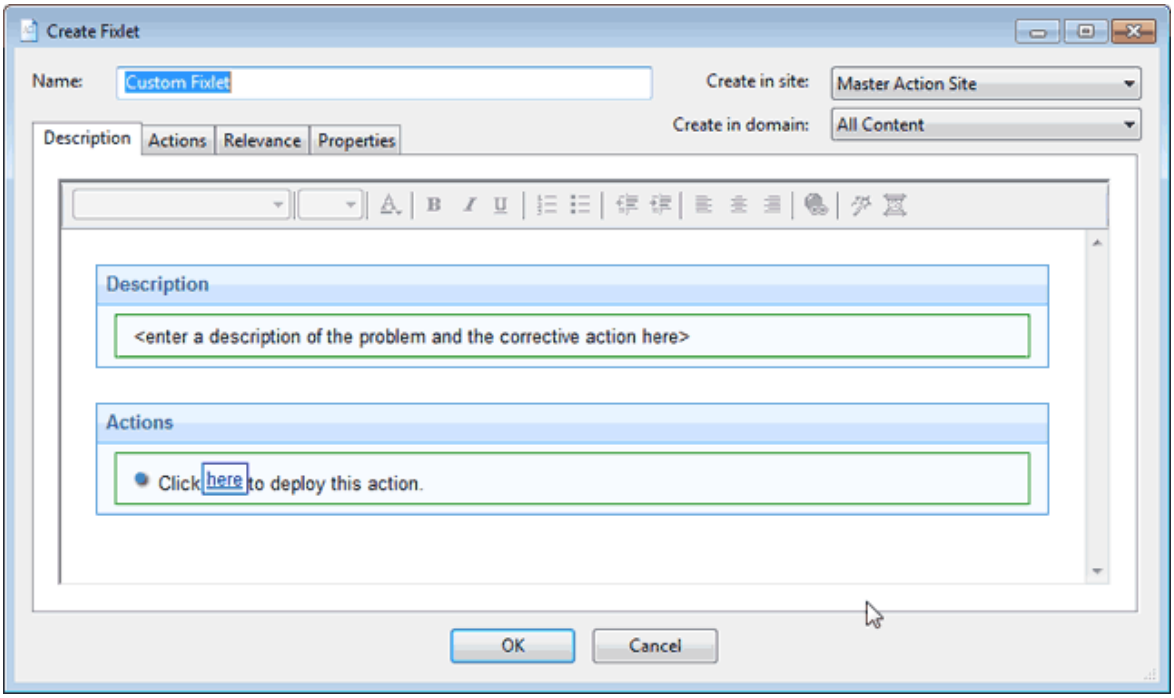
Your comment is name- and time-stamped for other operators to view it. In addition to Fixlets and Tasks, you can attach comments to Actions, Computers, and Analyses.

Creating or Customizing Fixlets and Tasks

How to create your own custom Fixlet or Task message from scratch.

Perform these steps:

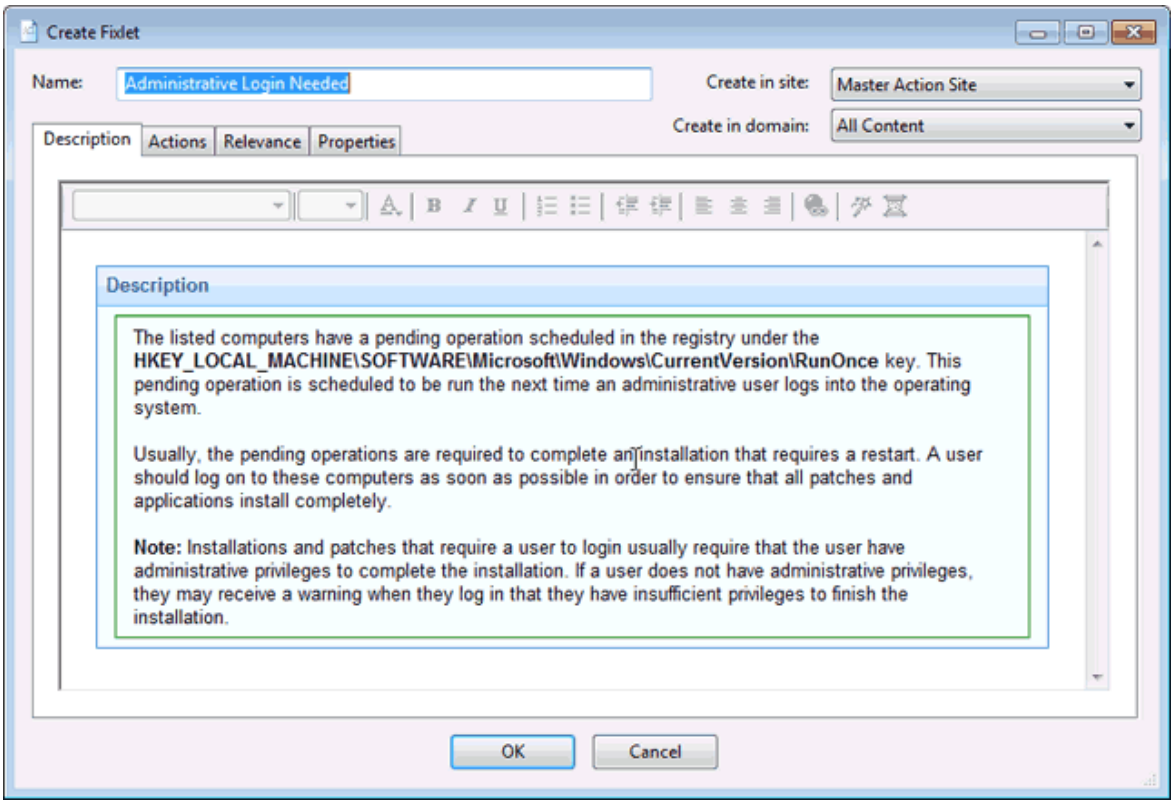
1. Select **Tools > Create New Fixlet** or **Task**. This opens a creation dialog with blank fields for you to fill in.



Note: To remove incorrect characters from the dialog, right-click the window, select **Encoding** and select the appropriate language. Close and reopen the window.

Note: The maximum length for Fixlet or Task names is 255 characters.

You might also want to customize a Fixlet or Task. You can do this by cloning and modifying an existing one. To do this, first select the desired Fixlet or Task from the List Panel, then select **Edit > Create Custom Copy** (or right-click the item and select **Create Custom Copy** from the context menu). The appropriate creation dialog opens, but this time it is filled with the original content.

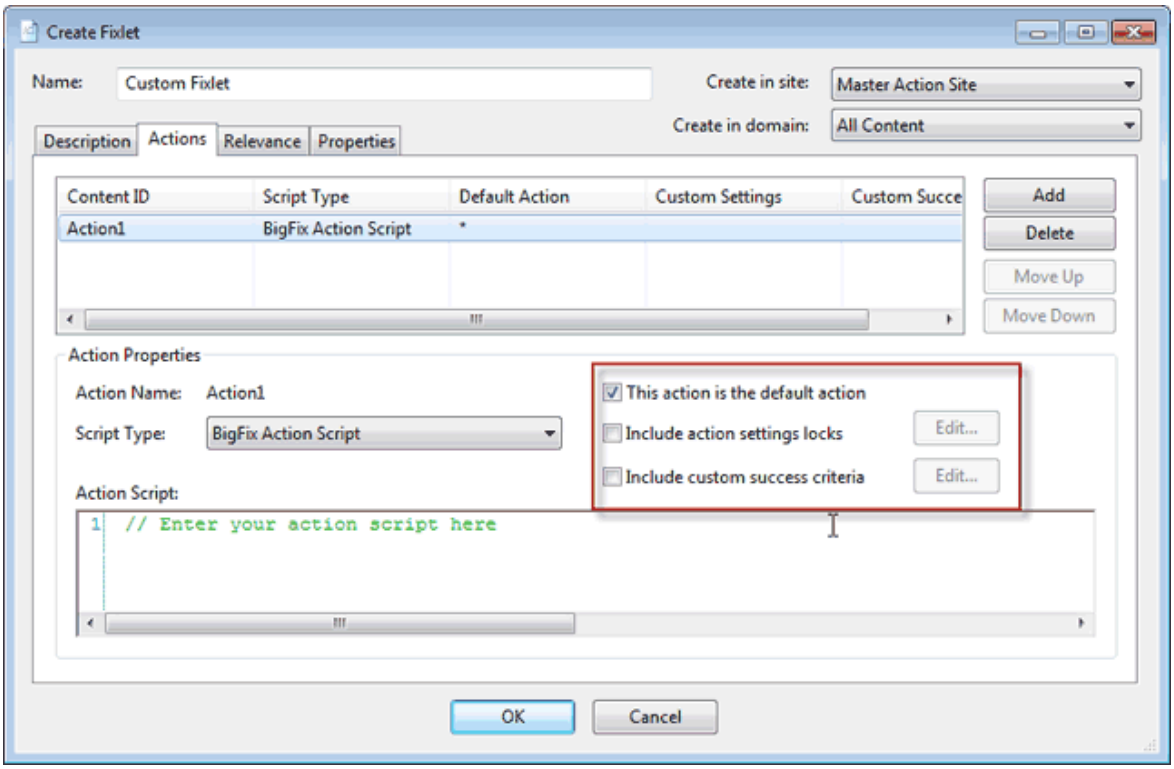


Either way, the Create dialog provides the same options. Enter the name of your customized message in the top left text box. This serves as the title when the Fixlet or Task is displayed. You can use the name for sorting and filtering, so create a consistent naming convention to make your content more manageable.

2. Choose the **Site** and **Domain** to host it from the drop-down menus, upper right.

   Next, click through each of the tabs to further define your Fixlet or Task.

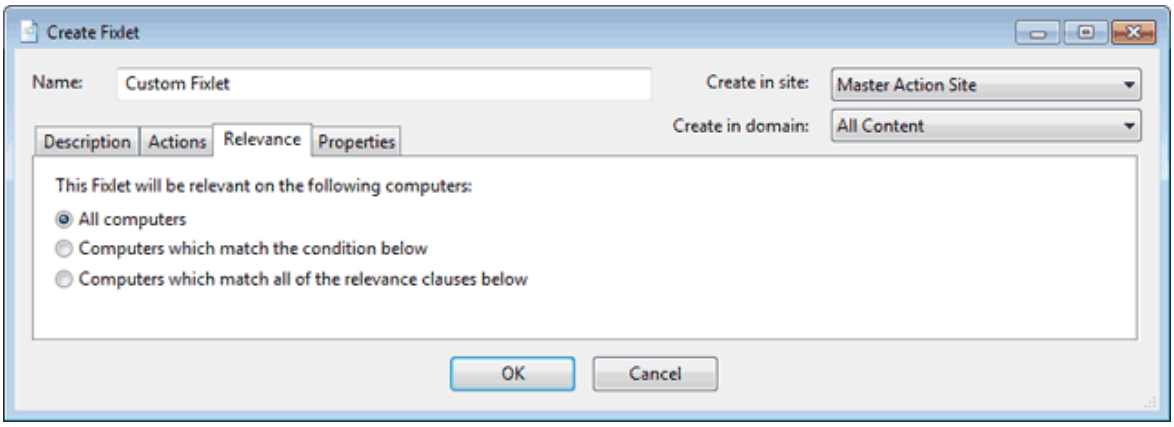
3. **Description:** Enter your descriptive text in this box. You can use the text manipulation toolbar at the top of the dialog to enhance the formatting.
4. **Actions:** Define your action in this dialog. Use the buttons at the right to add, delete, or change the position of the action. Below that is an area to customize the properties of the action. Choose the **Script Type** from the drop-down menu. Below that is a text box where you can enter a new action script or modify the original.



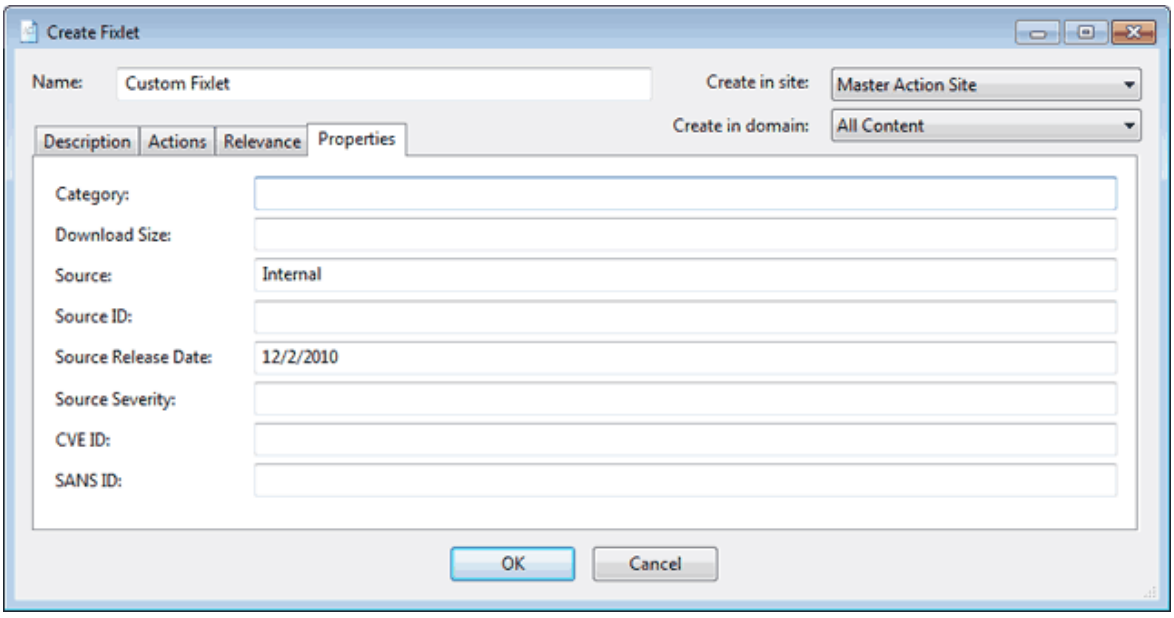
There are three check boxes you can use to modify the action:

- **This action is the default action.** Click this box to create a default action.
- **Include action settings locks**. Click **Edit** to the right of this check box to customize the action setting locks, including start time, end time, day exclusions, and more. This panel also includes failure and reapplication behaviors.
- **Include custom success criteria**, which allows you to specify the conditions that define the success of the action.

5. **Relevance:** Leave the default of applying to **All computers**, or click a different button and enter a condition or a relevance statement in the dialog below. This is how you target your Fixlet or Task to relevant computers. For more information about the relevance language, see the ***Inspector Libraries***.



6. **Properties:** Set the properties of your Fixlet or Task, including the category, download size, date, severity, and more. You can also include the SANS (SysAdmin, Audit, Network, Security) or CVE (Common Vulnerabilities and Exposures) ID numbers.



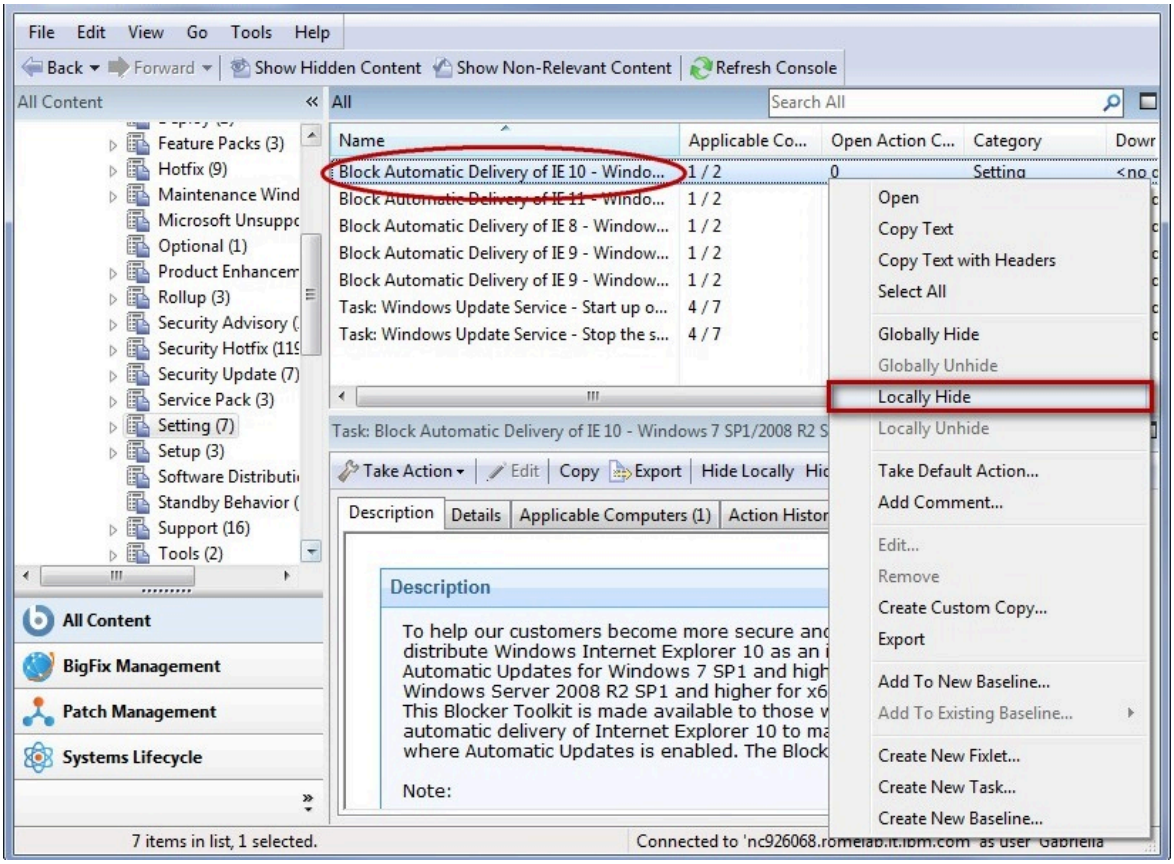
7. When you are satisfied with your definitions, click **OK**. Because your Fixlet or Task must be propagated, you are prompted for your private key password. When you enter it and click **OK**, it is sent to all the Clients, which evaluate it for relevance and report back their status. You can then follow the deployment of your new content in real-time from the Console.

Hiding Fixlets and Tasks

You can hide a Fixlet or Task.

Use the following procedure:

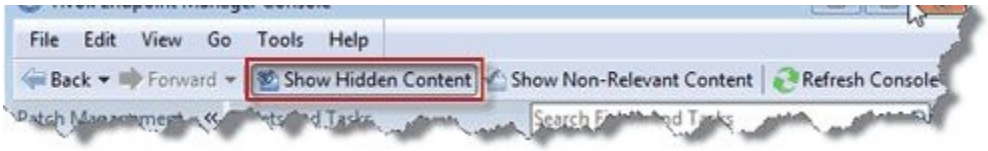
1. From any Fixlet or Task List Panel, select the messages you want to hide.
2. Right-click the desired item and select **Globally** or **Locally Hide** from the pop-up menu (or select **Edit > Hiding > Globally/Locally Hide**).



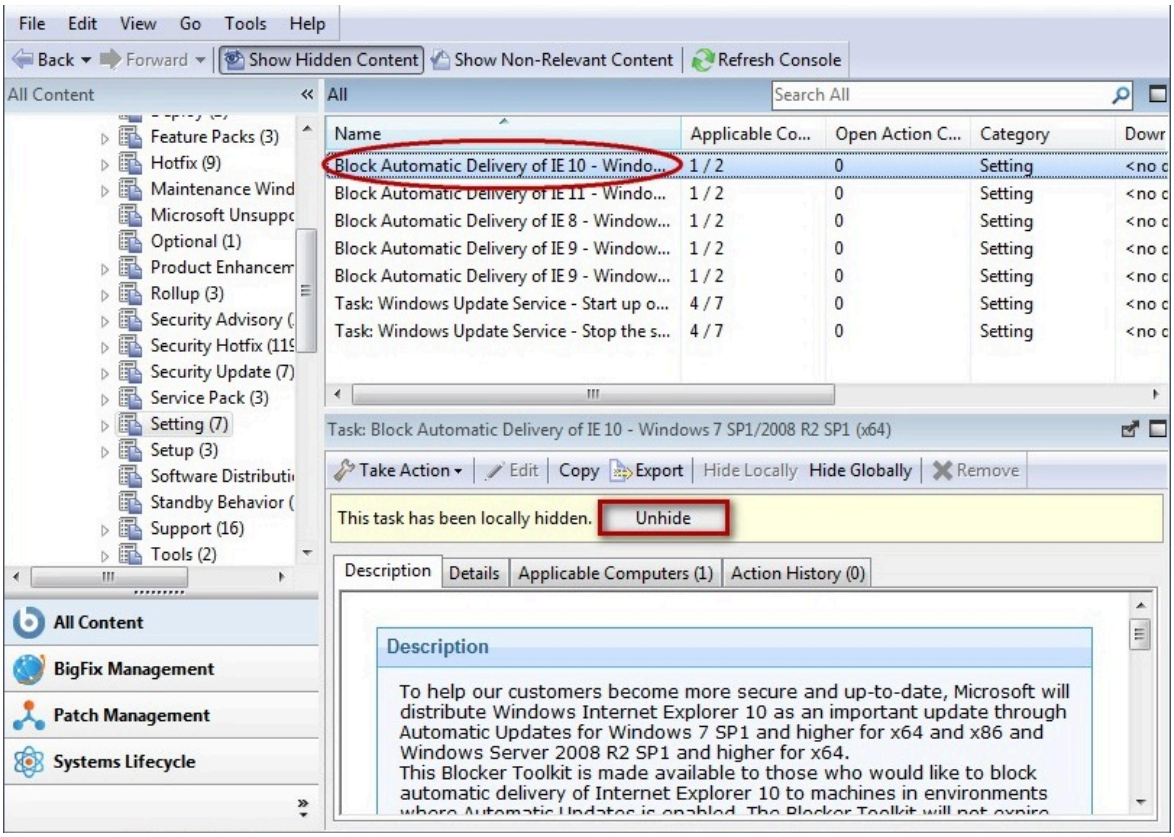
The selected Fixlet or Task is no longer displayed in the list. If you chose to hide the item locally, it is still visible to other Console users. If you are a master operator, you can hide a Fixlet or Task globally to hide it also from all non-master users.

Fixlet or Tasks that are hidden are still available and you can restore or "unhide" them at any time. Here is how:

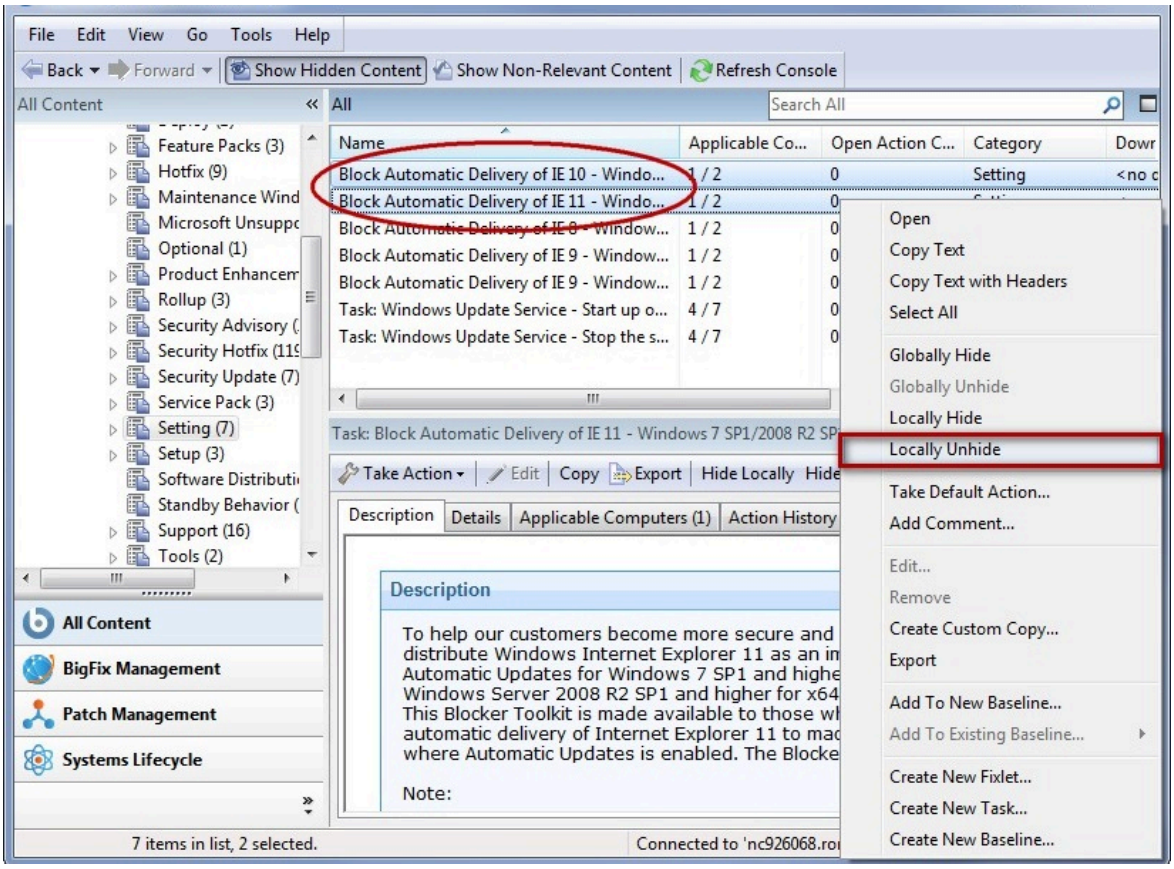
1. Click the Show Hidden Content button in the Console Toolbar. All content, including hidden content, is listed if this button is selected.



2. A single Fixlet or Task can be unhidden by clicking it from a list. In the resultant Work Area you see an **Unhide** button. Click it to return the item to its normal state.



3. Multiple Fixlets or Tasks can be unhidden by selecting them, right-clicking the group, and choosing **Unhide** from the context menu, or select multiple items and select **Edit > Hiding > Globally/Locally Unhide**.



Generally speaking, it is not necessary to hide Fixlets or Tasks, because you can simply ignore them. One important reason to hide them is if you have your own policy that must take precedence. For example, a Fixlet message might suggest that it is a good idea to install a particular security update, but you might be aware of reasons why it must not be applied to your network. In this case, hiding the Fixlet removes it from the user interface, so you can focus on other content. A master operator can also hide Fixlets and Tasks that must not be applied by ordinary operators.

Viewing Relevance Expressions

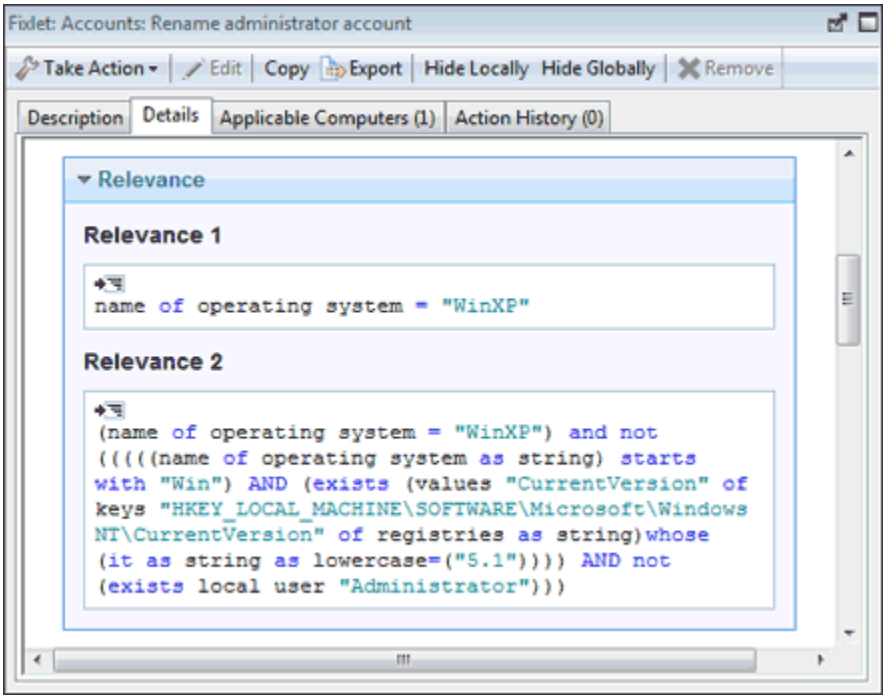
When a Fixlet message becomes relevant to some computer in your network, you might want to know exactly what triggered it, and what action is suggested.

This is easy to investigate, because these items are written in the Relevance Language, which is a human-readable language for probing and acting on computers.

To view Relevance Expressions:

1. Click a Fixlet message from any Fixlet List Panel to open a detailed Fixlet document in the Work Area below.
2. Select the **Details** tab.

This opens a page listing various Properties and below that, the **Relevance** clauses and Action scripts:



This window shows you how the computer is interrogated and why it has been triggered as relevant. Typically there are multiple Relevance clauses that are all ANDed together to determine if a given BigFix Client is affected.

Scroll down to view the **Action script**.

Introducing Relevance

To quickly and non-invasively inspect various aspects of a computer, the Relevance Language was created.

This human-readable language is at the heart of the program and allows Fixlet authors to target actions to just those computers that need the fix -- and no others. You can be confident that only broken machines are being fixed.

The Relevance Language can query an exhaustive set of computer properties, and do it quickly. Most Console operators rely on other users to write Fixlet messages, and so their exposure to the Relevance Language is not critical to operating the Console. However, as a power user, you can customize the Console with short lines of code from the Relevance Language (called Relevance Expressions) which grant you an unprecedented amount of control over the BigFix Client computers on the network.

A typical Relevance Expression might be:

vendor name of processor

This expression returns the name of the manufacturer of the CPU (Intel or AMD, for example), which can then be used to determine relevance.

You can use Relevance Expressions to create retrieved properties, which you can then use to organize and filter the Clients in the network. For example, here are some possible properties that might be useful to know about your BigFix Client computers:

Table 1. Properties of the BigFix Client computers

Property name	Relevance Expression	Result
Pentium	family name of main processor contains "Pentium"	True if the processor is a Pentium.
Small drive	Total space of drive "c:" < 2000000000	True if the drive is smaller than 2GB.
Bad clock	absolute value (now - apparent registration server time) > 1 hour	True if the clock is off by more than one hour.
IE Version	file version of application "iexplore.exe" of the registry	Version number of Internet Explorer on a Windows computer.

Table 1. Properties of the BigFix Client computers (continued)

Property name	Relevance Expression	Result
Mailto App	application of key "HKEY_-CLASSES_ROOT\mailto" of the registry	On a Windows computer, the name of the app that handles mailto requests from a browser.
Running Word	exists running application whose (name of it as lowercase is "winword.exe")	True if Word is running on a Windows BigFix Client computer.
Bios date	date of Bios	BIOS date on a Windows computer, if it exists.
Processors	number of processors	The total number of processors in the BigFix Client computer.

Use the **Manage Properties** dialog to see how these custom properties work. Click the **Add New** button, supply the property name, and type in the Relevance Expression in the text box.

There are thousands of useful Retrieved Properties - far too many to list here. For a more extensive list of retrieved properties, check the Support Website. For an in-depth discussion of Relevance, see the **Relevance Language Reference**.

Chapter 3. Actions

Actions are scripts that run on selected targets. They are used to fix policy violation and security exposures and to run configuration steps. Fixlet, tasks, and baselines depend on actions to run their remediation mission.

Actions are triggered by a console operator using a take action command. They can be run independently or as part of Fixlets, tasks, or baselines.

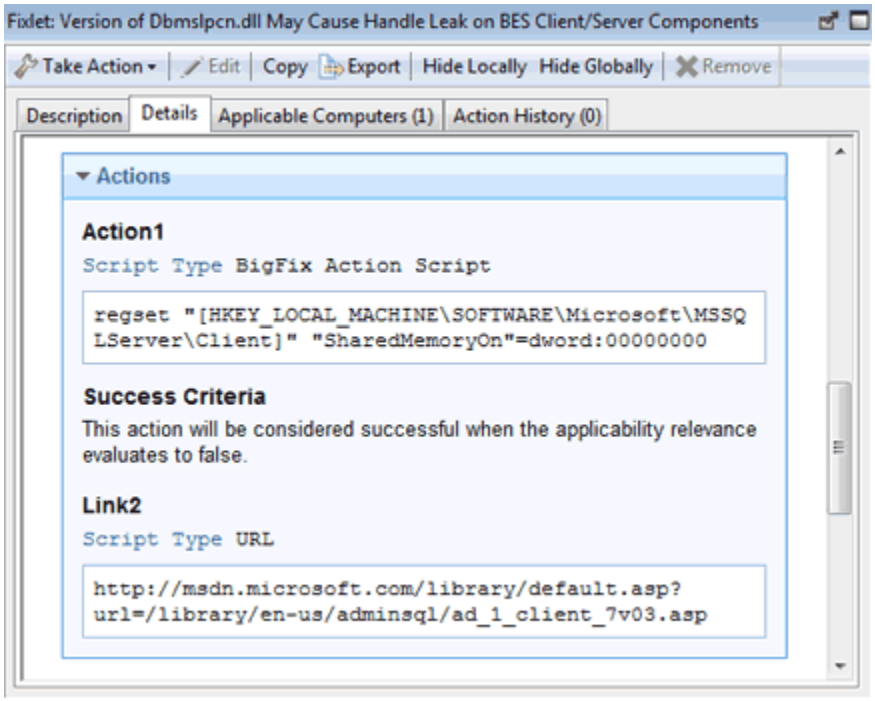
An action is described using a proprietary language, the action language. For more information about the action language, see the BigFix Developer site.

Actions can be used in synergy with relevance expressions to customize a specific solution for specific BigFix Clients.

There are two types of actions:

Default actions

They are optionally included in Fixlet and tasks at authoring stage. They run automatically on relevant targets when the Fixlet or the task is deployed. You can view the information about the default action, if any defined, in the **Details** tab of the Fixlet message or task.



You must run the Take Action command to deploy the related Fixlet or task. You can still customize on the fly the action when you run the Take Action command. Depending on the number of Fixlets or tasks that you want to submit concurrently, one or more than one, you can:

- Taking a default action as part of the deployment of a Fixlet or a task *(on page 34)*
- Taking multiple actions *(on page 36)*

Custom actions

They are used to fix problems or to address issues that are not covered by the default action or to customize the action for your specific environment. Custom actions override default actions. To create and submit a custom action you must run the Taking a custom action *(on page 37)* command.

Warning: Actions cannot be automatically undone. If you need this capability you must code it in the action itself.

These are the activities that you can run against actions from the BigFix console:

- Taking actions *(on page 33)*
- Monitoring an action taken *(on page 38)*
- Viewing the details of an action run *(on page 42)*
- Running commands on actions *(on page 44)*
- Adding a comment *(on page 46)*
- Making an offer using a custom action *(on page 47)*

Taking actions

At the heart of the BigFix is the ability to take actions to apply policy or fix one or many computers. This topic describes how to do it.

These are the different ways to deploy an action:

- Taking a default action as part of the deployment of a Fixlet or a task *(on page 34)*
- Take multiple actions *(on page 335)*
- Taking a custom action *(on page 37)*

Whatever type of take action you choose, this is what happens after you clicked **OK** to take the action:

1. The console sends the request to the server.
2. The server stores the action to the *op site* folder associated with the console operator who issued it, or the *actionsite* folder, if the action was issued by the master operator.
3. The server propagates the action to the computers selected in the **Target** tab of the action or to all computers managed by the operator who issued the action.
4. On the computers the applicability of the action is evaluated. If the relevance expression described in the action is evaluated true then the action is applicable.
5. If the action is applicable to that computer, the action is pulled from the server folder down to the computer and it is run.

   The computer is added to the **Computers** tab and the status of the action running on the computer is updated up to completion.

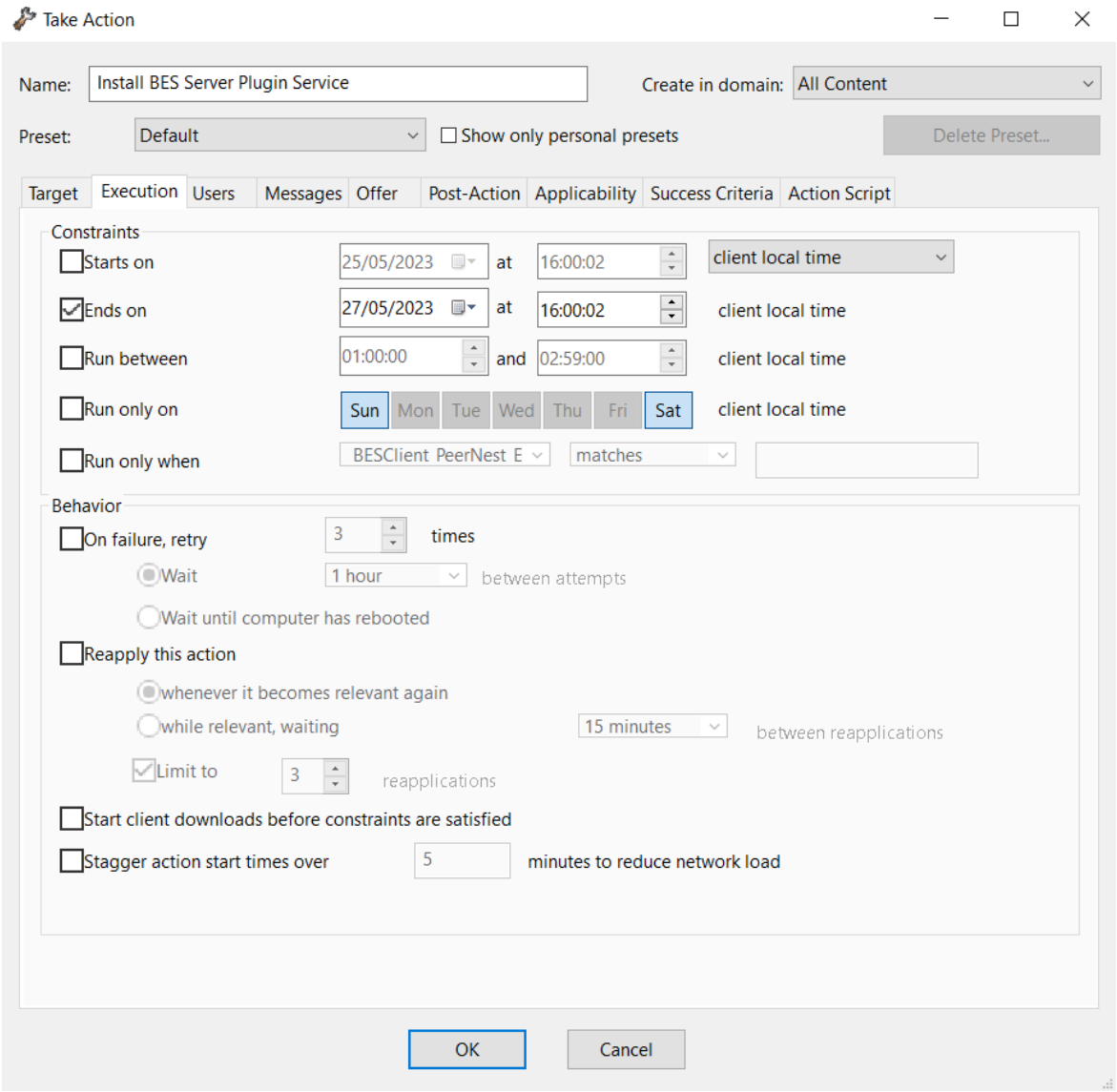
Taking a default action as part of the deployment of a Fixlet or a task

You deploy a Fixlet or a task by taking the action that it contains. Follow the instructions provided in this topic to see how to do it.

1. Click on a relevant Fixlet or task, the content of the selected object is displayed in the Work area.
2. You can run the action associated to the Fixlet or to the task in one of these ways:
   - Right-click a relevant Fixlet or a task and choose **Take Default Action** from the pop-up menu.
   - Click a relevant Fixlet or task and select **Take Default Action** in the Work Area toolbar.
   - Click a relevant Fixlet or task and select the **Description** tab. Scroll down to see the suggested actions. Click the link related to the action that you want to run.

Note: These options are available only if the selected Fixlet or task contains a default action.

The **Take action** dialog opens.



3. In that dialog you can review and, if needed, update the action values. For more information about the values that you can set in its input fields and tabs, see Take action *(on page 332)*.

4. When you finish editing, click **OK** to deploy the action.
5. Enter your authentication password and click **OK**.

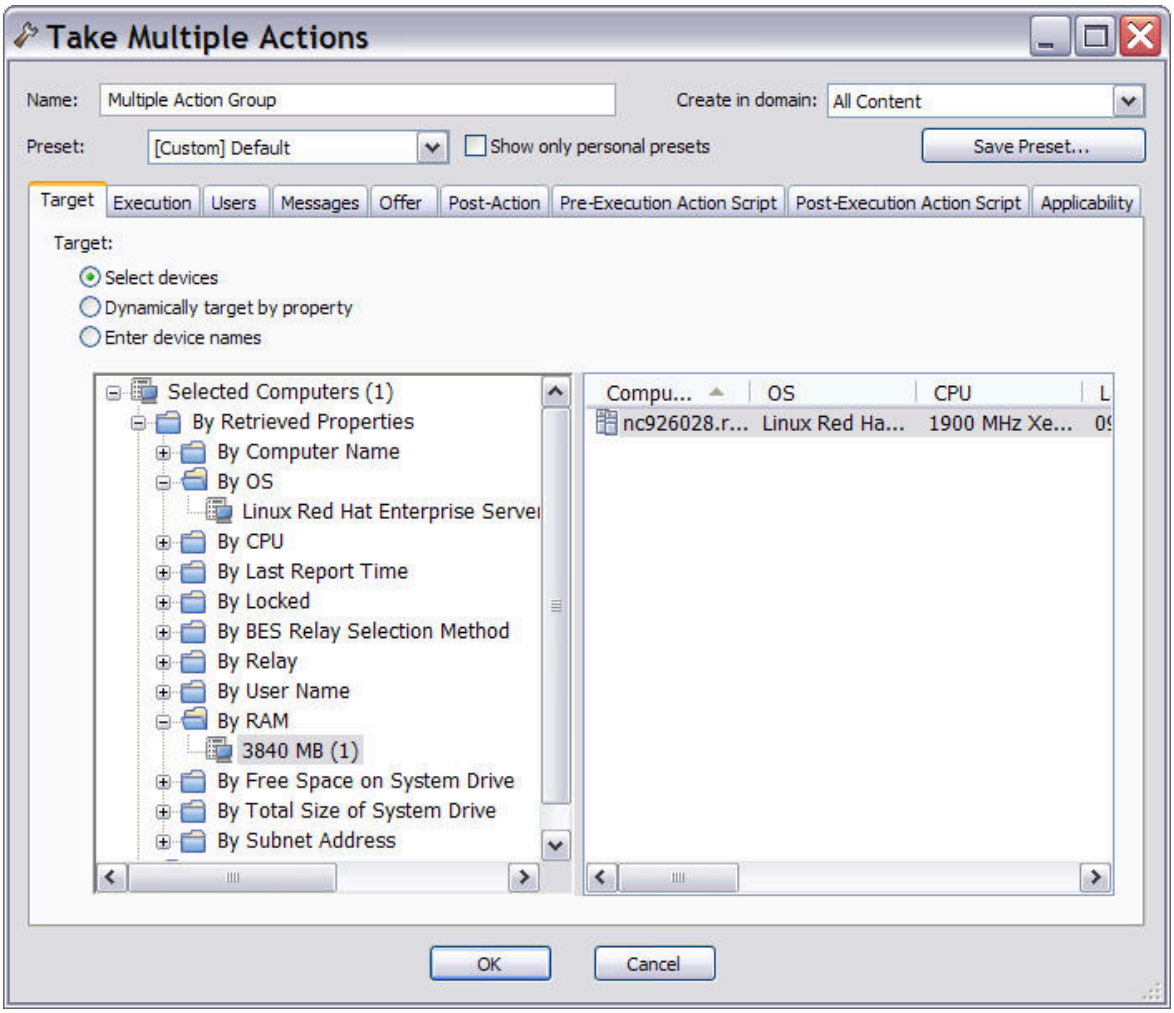
Taking multiple actions

How to deploy a set of Fixlets or tasks in a single grouping using the **Take multiple actions** command.

As a requirement, each Fixlet or task involved in the group must have associated a default action.

These is how you can accomplish this task:

1. Right-click a selected group of tasks or Fixlets containing default actions.
2. Select **Take Default Action**. The **Take Multiple Actions** dialog opens.



3. In this dialog, specify how the selected actions must be deployed to the computers in your network. The input fields contained in the dialog are the same as those contained in the Take action *(on page 332)* display with the exception of the following additional fields:

   Run all members actions of action group regardless of errors

   This field belongs to the **Execution** tab and specifies whether the action run should stop if an error occurs for one or more object of the group or not.

   Pre-Execution Action Script tab

   Lets you specify an Action Script to run before the group of Actions is deployed.

   Post-Execution Action Script

   Lets you specify an Action Script to run after the group of Actions is deployed.
4. When you finish editing, click **OK** to deploy the action.
5. Enter your authentication password and click **OK**. A progress dialog opens to keep you informed about the stage of the deployment.

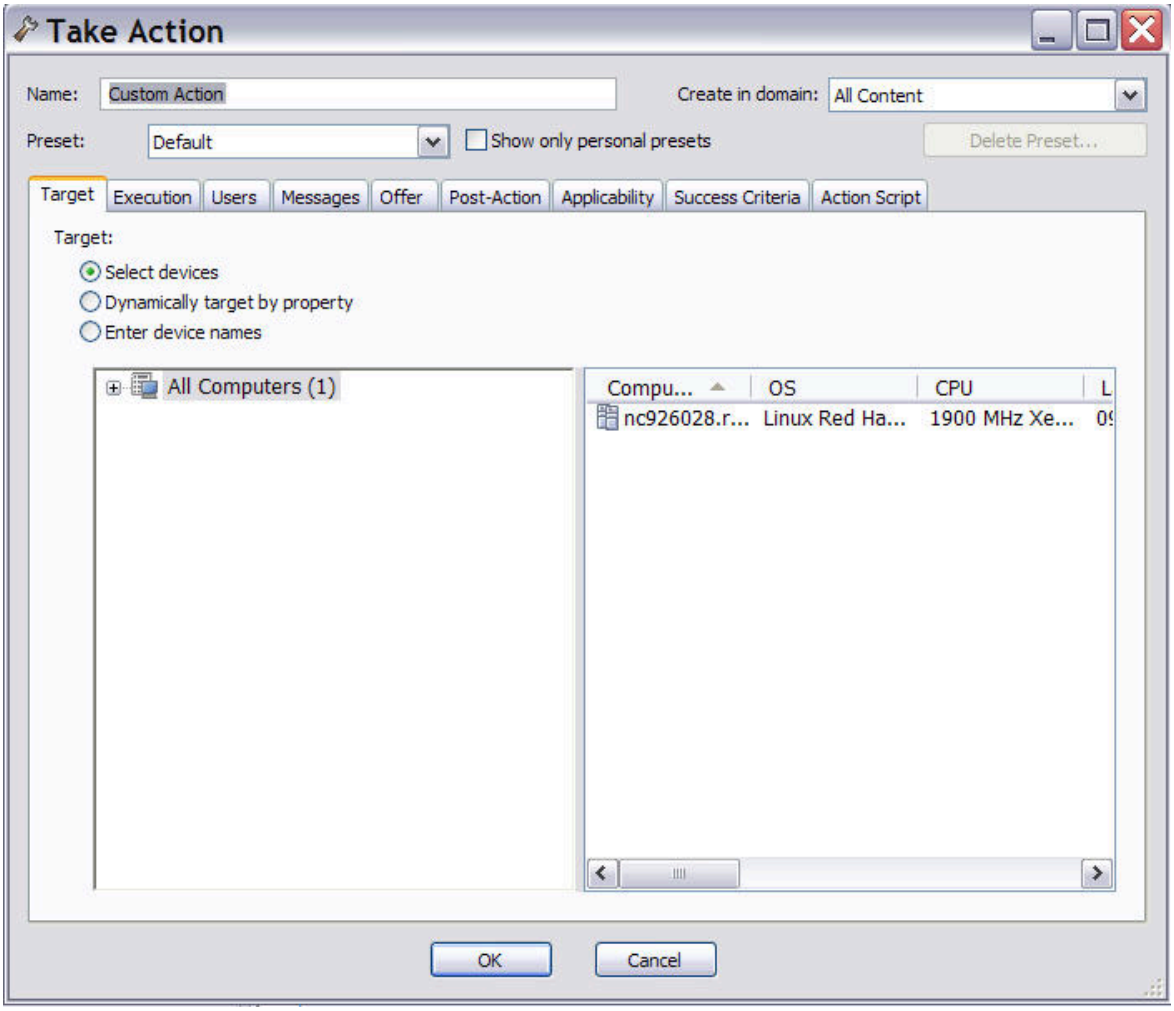
Note: The difference between grouping Fixlets or tasks and creating a baseline containing the same set of object is that the objects contained in the baseline are bound in sequence.

Taking a custom action

How to create and take a custom action in one shot using the **Take custom action** command.

These is how you can accomplish this task:

1. Log on to the Console as an Operator with Custom Content permissions.
2. Either select **Tools** in the main toolbar and then choose **Take Custom Action** or right-click with the mouse on an item in the action List panel and select **Take Custom Action**. The **Take Action** dialog opens.



3.
4. Fill in the input fields as it is described in Take action *(on page 332)*.
5. When you finish editing, click **OK** to deploy the action.
6. Enter your authentication password and click **OK**.

Monitoring an action taken

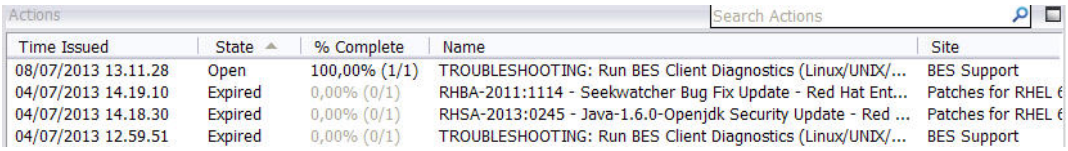
How you can keep track of the progression of the deployment of an action taken.

After actions have been scheduled, the BigFix server attempts to signal individual computers that there are actions waiting for them. Ideally, the BigFix client gathers the action information from the action site and runs it immediately. More typically however, some computers are powered off and others are mobile and undocked at the time of the deployment. As soon as these computers are powered on or docked to the network, the remedial actions are applied to them as well.

At any time you can see the status of the actions taken from the BigFix console. You can:

Monitor the overall state of the action

You can see it in the State column of the Actions List panel.



The state can be:

Open

The action is active on one or more computers. It remains open until its expiration date elapses, or an operator stops it. You cannot remove an action that is open.

Stopped

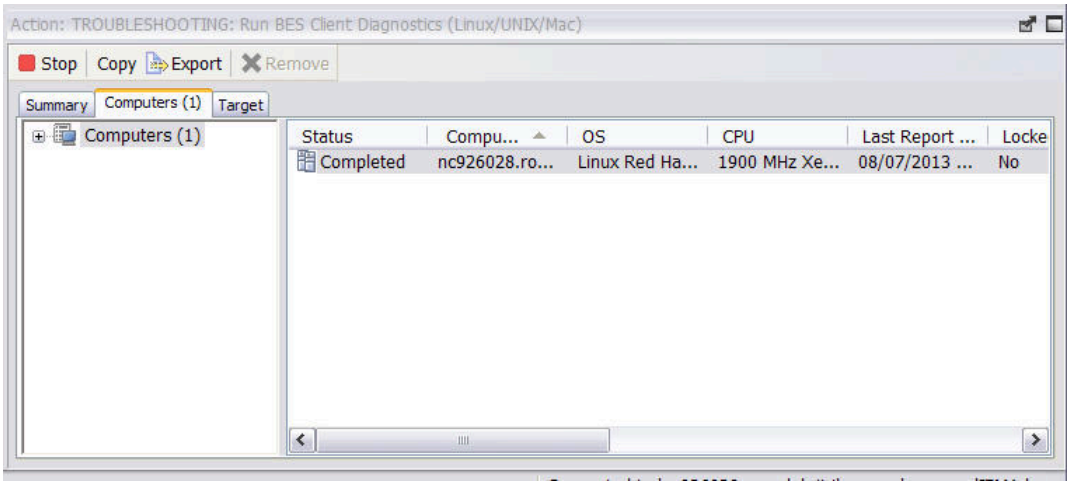
The action was stopped by an operator. It remains stopped until its expiration date elapses or it is removed.

Expired

The action has passed its expiration date. When an action expires, the targets stop evaluating. Hence, for the expired actions, the target status is a snapshot of last status reported by clients at the expiration time.

Monitor the status of the action on selected computers

You can see it in the **Computers** tab of the selected action .



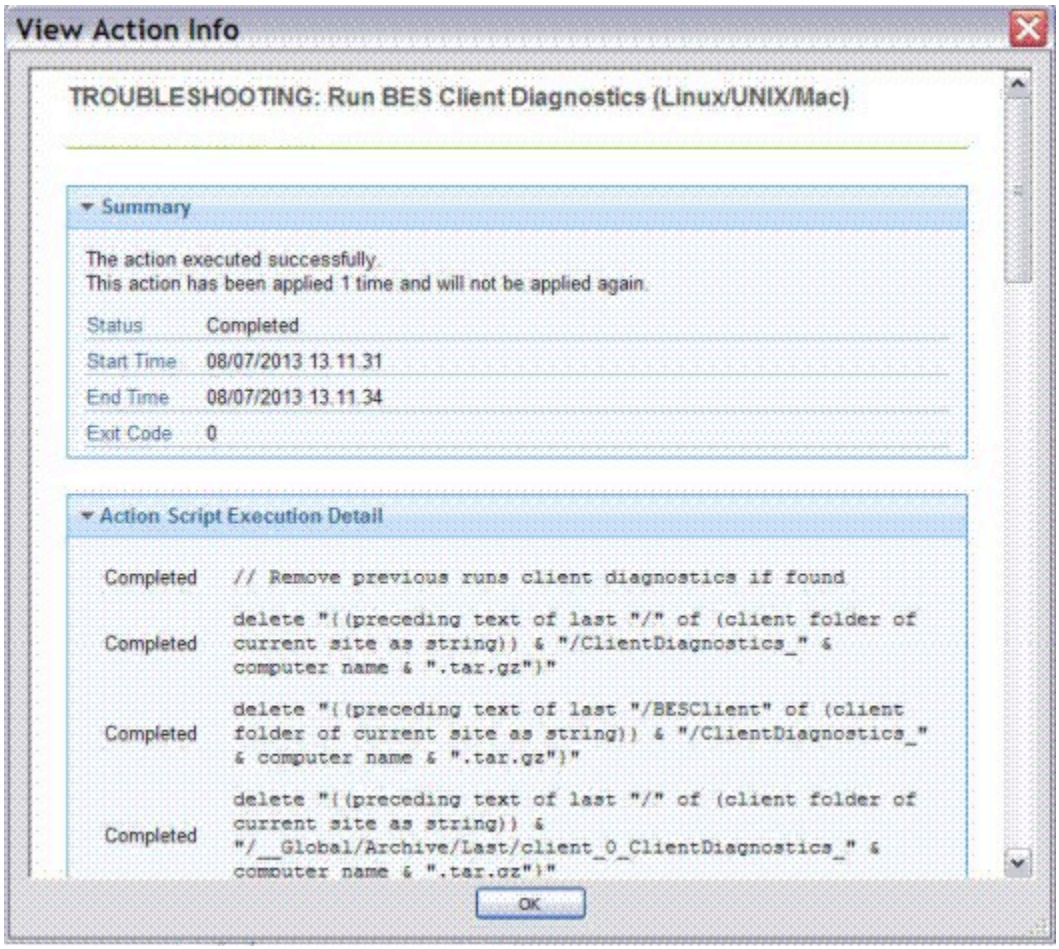
To access this dialog:

1. Click the **Action** icon in the navigation tree.
2. Select an action in the Actions List Panel. Information about the action is displayed in the Work Area.
3. Select the **Computers** tab in the Work Area.

For information about the different statuses, see Action: Computers *(on page 173)*.

Monitor the action progression on a computer

You can see the result of each step of the action run on a specific computer. This is shown in the **View Action Info** dialog.



To access this dialog:

1. Click the **Action** icon in the navigation tree.
2. Select an action in the Actions List Panel.
3. Select the **Computers** tab in the Work Area.
4. Right-click any computer in the list.
5. Either select **Show Action Info** from the context menu or select **Show Action Info** from the **Edit** menu.

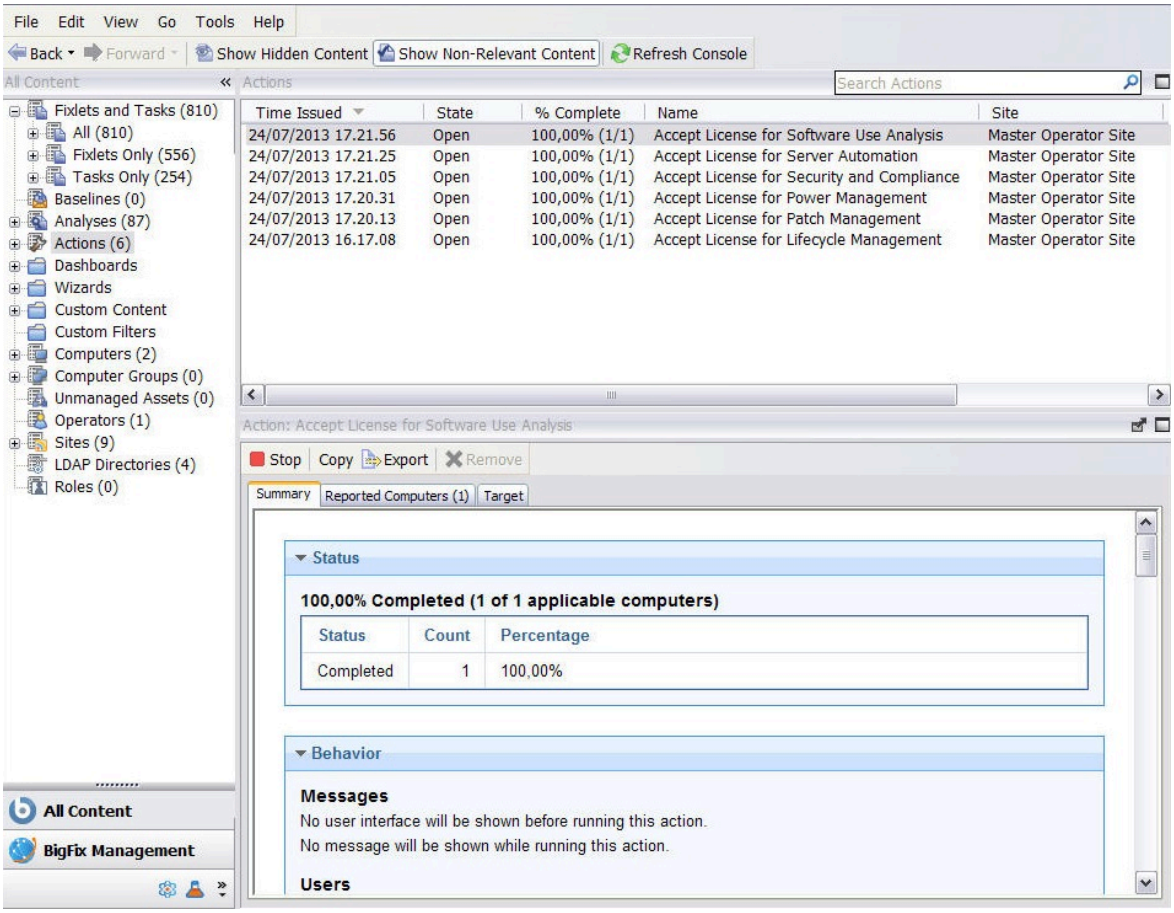
For information about the values in this panel, see View action info *(on page 344)*.

Viewing the details of an action run

Follow the indications provided in this topic to see the details about an action that is being deployed.

To view this information do the following:

1. Click on the **Actions** icon in the Domain Panel navigation tree.
2. Click an action in the List Panel. The details about the action run are displayed in the Work Area beneath.



There are three tabs in an action document. They are:

Summary

This tab summarizes the action, with sections on the status of the action and the progress of the download. It displays information about the behavior of the Action, including:

- Progress of the download
- Action ID
- Users
- Run options
- Post actions
- Relevance clause
- Text of the action script
- Success criteria

At the bottom of this dialog there is a text box where you can insert a comment that can be viewed by other operators accessing the same content site.

For more information about the content of this tab see Action: Summary (on page 186).

Computers

It shows the computers affected by the specified action and the states of the action on each of them.

The deployed action progresses through a series of well-defined stages on a given computer.

For information about the values displayed in this tab and the status of the action on a computer across the different stages, see Action: Computers (on page 173).

Target

It shows the targeting method and the subset of computers that was originally targeted by the action. The content of this tab is read-only and it can be static or dynamic depending on the targeting method specified

when the action was taken, explicitly from a list or indirectly by retrieved property.

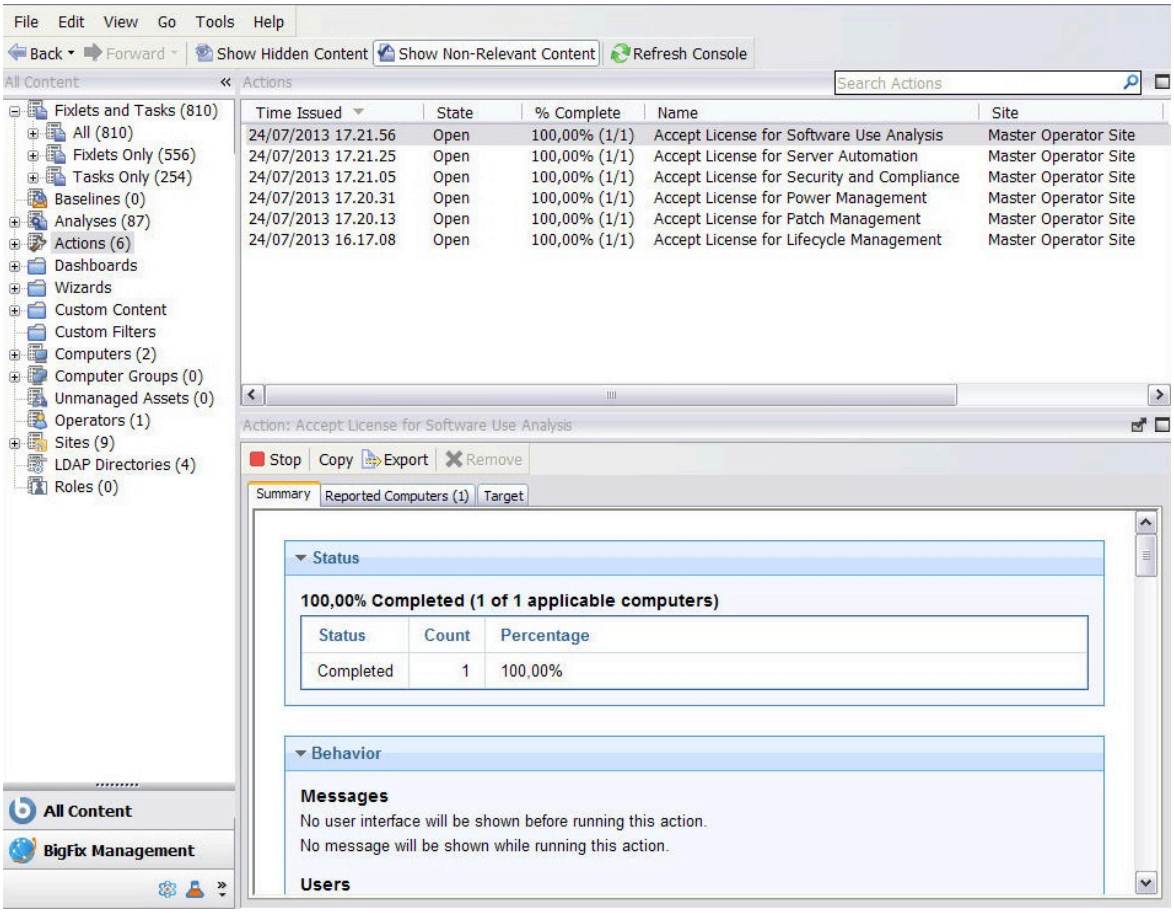
For more information about targeting methods and their results, see Action: Target (on page 189).

Running commands on actions

The commands you can run on actions and how to run them.

Do the following to get to the available commands:

1. Click the Actions icon in the Domain Panel navigation tree.
2. Click the action in the List Panel. At the top of the Work Area there is a toolbar with four icons:



Stop

Click this button to halt the deployment of an action that has already been triggered but has not expired yet.

This command completes the run on the computers where the action has already started and prevents the action from running on the computers where the action has not yet started to run, for example because of computer unavailability, lack of network connectivity or gather frequency.

As an alternative, you can stop an action by right-clicking the action and choosing **Stop Action** from the pull-down menu or by selecting **Stop Action** from the **Edit** menu.

Note: A non-master operator (NMO) can stop the actions submitted by other non-master operators. For more details, see Stop Other Operator's Actions feature.

Copy

Click this button to create on the fly a copy of the action to deploy. A **Take Action** panel is opened to allow you to customize the copy and trigger it.

Note: There is no way to modify the targeting or scheduling of an action after the deployment is initiated. If you want to modify an action that has been deployed but has not finished running, you must first stop the action as it is described here and then start a new action with the desired characteristics.

Export

Click this button to save a copy of this action. Later on you can import the edited action as a custom action and run it.

Remove

Click this button to delete this action from the database. You can remove an action only when it is stopped.

The commands that cannot be run on an action in its current state are greyed out.

Adding a comment

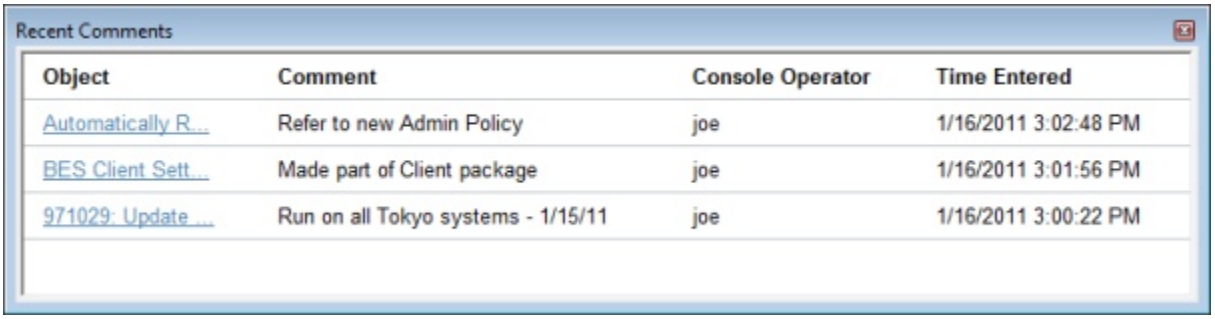
BigFix Console operators can make comments on most of the BigFix objects. This topic describes how to add a comment to an action.

Run these steps to create a comment for an action:

1. Click the **Actions** icon in the Domain Panel navigation tree.
2. Right-click an action and select **Add Comment**.
3. Type your comment into the dialog box that opens.

Similarly, you can attach comments to tasks, Fixlet, computers, and analyses. These comments can include keywords or operating notes. This is a freeform field, so you can make up your own rules for commenting.

To view an aggregated list of all comments, select **View Recent Comments** from the **Tools** menu.



This dialog lists all the comments created to date, sorted by timestamp, with the most recent comments at the top. The name of the console operator responsible for the comment is listed next to the description. Each comment contains a link that opens the

original object in the main window, allowing you to view the description and other aspects of the object.

Making an offer using a custom action

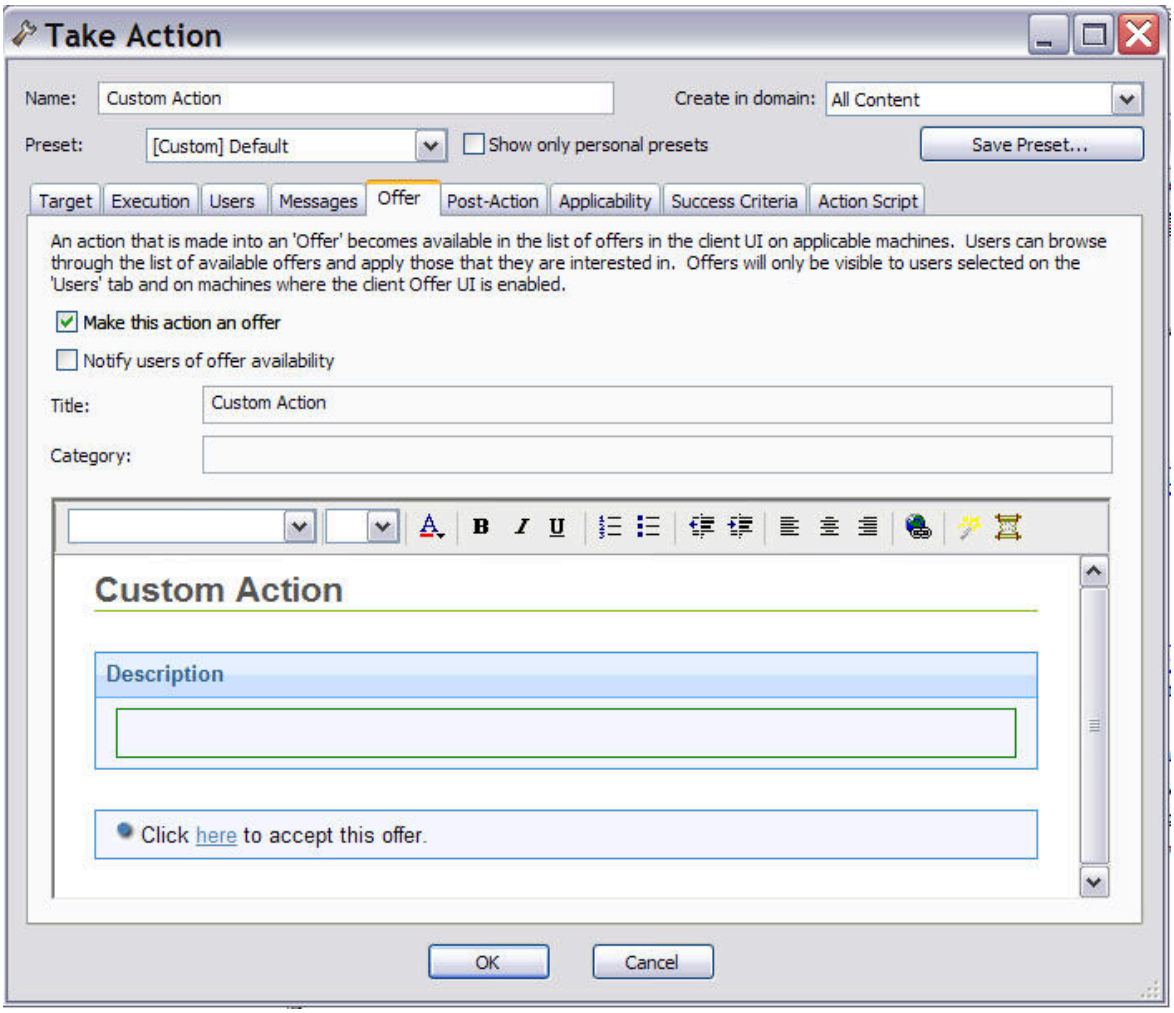
Follow the instructions provided in this topic if you want to offer to users a set of downloads that they can select at their own discretion. This capability is also referred to as self-provisioning.

These offerings are delivered as a type of custom action, so they include all the targeting and scheduling capabilities that you would expect from a typical action, and they are available only for Windows and macOS operating systems.

Important: These actions run with elevated permissions, so this can be used to allow non-privileged users the ability to trigger specifically-approved actions that run with higher permissions.

To advertise such an offer, follow these steps:

1. In the main toolbar select **Tools**.
2. Select **Take Custom Action**. The **Take Action** dialog opens.
3. Click the **Offer** tab.



For more information about the values that you can set in its input fields and tabs, see Offer tab *(on page 300)*.

4. Click the other tabs in the Take Action dialog to further customize the action that will advertise your offering.
5. When you are ready to deploy your offering, click **OK**.
6. Your action offer is distributed to all the computers that have been specifically targeted. This select group of users is then presented with your offer and prompted to accept it on their own schedule.

Note: This tab is available also when taking a default action as it is described in Taking a default action as part of the deployment of a Fixlet or a task *(on page 34)*.

Chapter 4. Sites

Introducing Sites

Sites are collections of Fixlet messages that are created internally by you, by HCL, or by other vendors. You subscribe to a Site and agree on a schedule for downloading the latest batch of Fixlet messages.

You can view and manage your collection of Sites by navigating to them and opening them in the Domain Panel. You can add a new Site subscription by acquiring a Masthead file from a vendor or from HCL. Sites are generally devoted to a single topic, such as security or the maintenance of a particular piece of software or hardware. However, several sites might share characteristics and are then grouped into Domains, which are designed to be in accordance with the typical job duties of your various Console managers. For example, the person in charge of patching and maintaining a common operating environment finds Support sites and Patching sites for various operating systems all bundled in the Patch Management Domain.

You can set up your own custom Site and populate it with Fixlets that you have developed specifically for your own network. You and other operators can then send and receive the latest in-house patches and quickly deploy them to the appropriate locations and departments.

Selecting Sites

Upon installation, the program is automatically set up to subscribe to certain management and maintenance sites.

Depending on the terms of your license, you might have subscriptions to other sites as well. This means that content from those Sites automatically flows into your enterprise and is evaluated for relevance on all computers running the BigFix Client. These sites, in turn are automatically registered with an appropriate Domain, providing a simple way to divide the content into functional sections.

Subscribing to Sites from the License Overview dialog

1. Select the **License Overview** node from the BigFix Management domain. The License Overview dialog appears, listing available sites.
2. Click the enable button associated with the site to which you want to subscribe.
3. Enter your password to subscribe to the site. The new site will now be listed in the **Manage Sites** node of the domain panel.
4. Open the **Manage Sites** node and select your newly subscribed site.
5. From the site dialog, click the **Computer Subscriptions** tab to assign the site to the appropriate computers.
6. From the **Operator Permissions** tab, select the operators you want to associate with this site and their level of permission.
7. Click **Save Changes** when you are done.

Note: If you change your license, you will need to resubscribe to your Fixlet sites. Although your new license is associated with your old one, only the Support site will be automatically renewed.

Subscribing with a Masthead

To subscribe to a site using a masthead file, follow these steps.

1. First, find an appropriate Site masthead file, which has an extension of `.efxm`. There are several ways to do this:
    - **Fixlet Sites:** HCL might post links list to new Sites as they become available.
    - **Fixlet Subscriptions**: Sometimes a Fixlet message might offer a subscription. Just click the Fixlet action to initiate the subscription.
    - **Download Mastheads:** You can also subscribe to a Site by downloading a masthead file from a vendor's website.
2. When the masthead is saved to your computer, you can activate it in one of two ways.
    - Double-click the masthead, or
    - Select **Add External Site Masthead** from the **Tools** menu, browse to the folder containing the masthead, and click **Open**.
3. You are prompted for your private key password. Type it in and click **OK**.

The masthead is propagated to all Clients, which immediately begin to evaluate the Fixlet messages from the new site.

Subscribing with the Licensing Dashboard

You can also subscribe to a Fixlet Site by using the Licensing Dashboard in BigFix Management.

You can find it in the Domain Panel:

1. Open the **BigFix Management** domain and scroll to the top to view the associated dashboards.
2. From the **Licensing Dashboard**, select the sites you want to subscribe to.

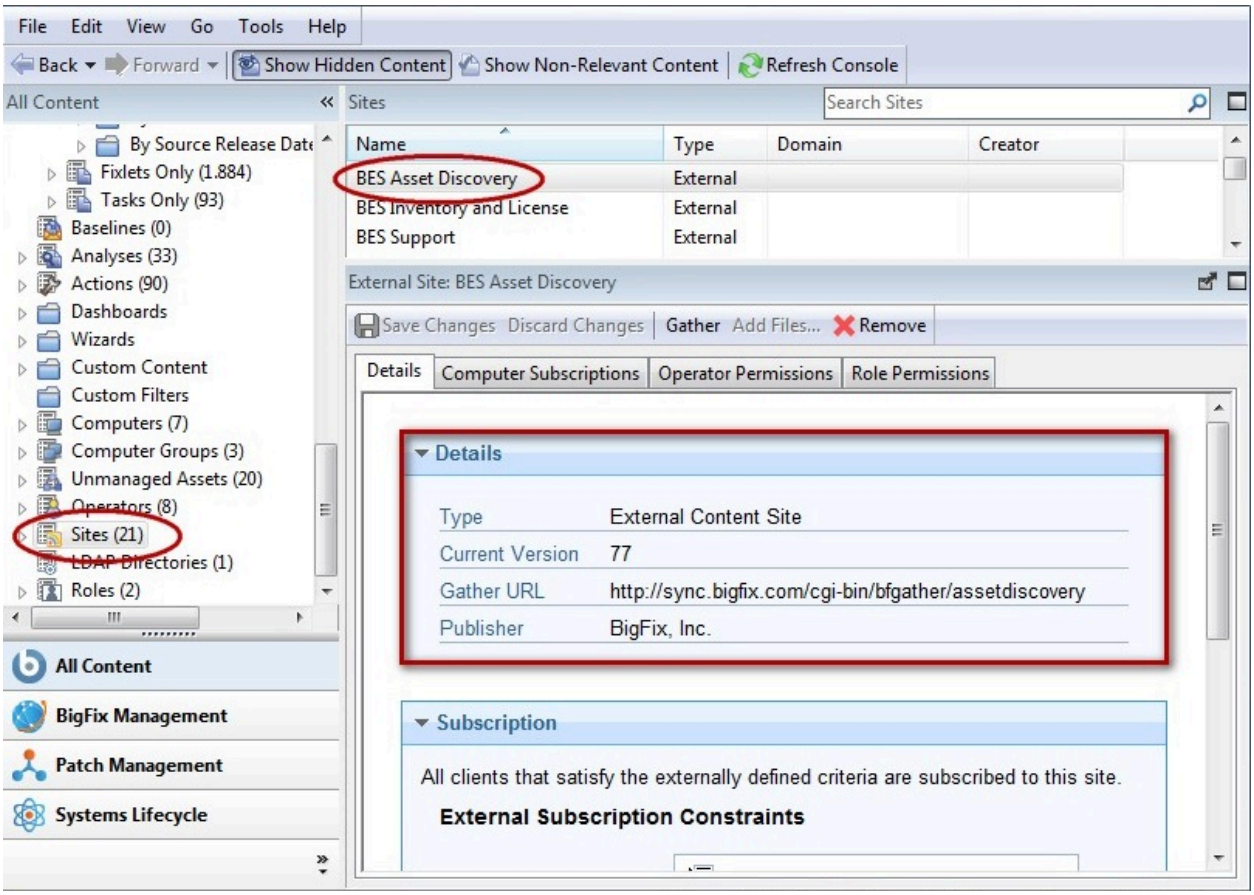
Viewing Site Properties

After initiating a subscription, you can inspect its properties and signing authorities.

This can be useful when tracking down the origin of a particular Fixlet message or action. Here is how:

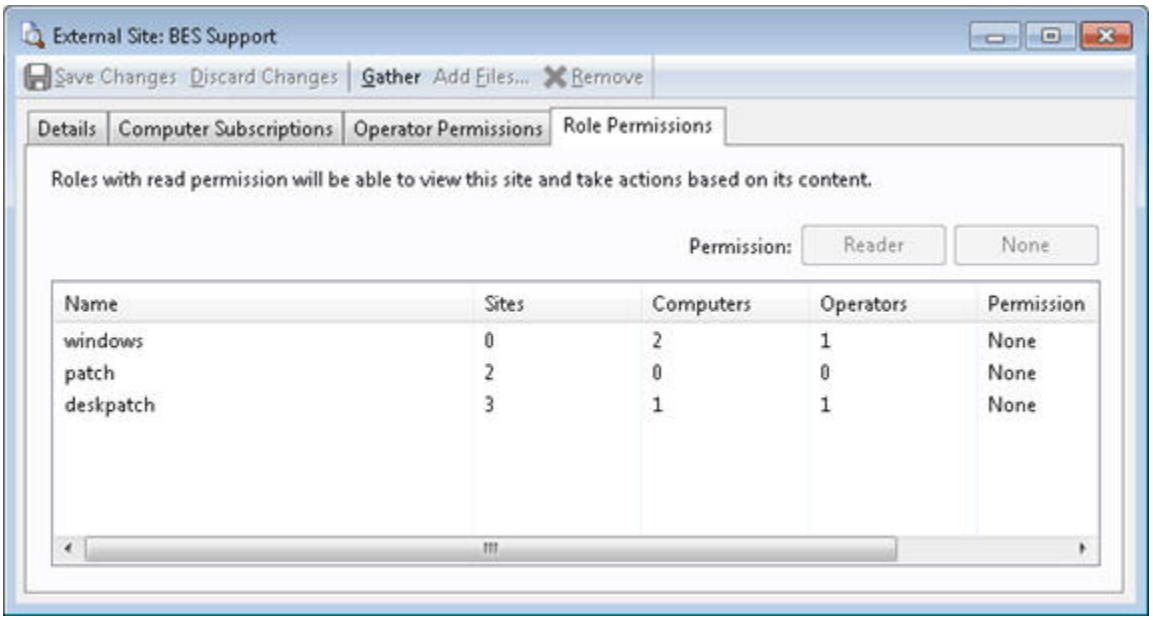
- Click the site from the Domain Panel on the left.

The **Site Properties** are shown in the Work Area, detailing information about the site publisher and the URL from which the content has been gathered.



Depending on its type, a site might have other properties as well. You can assign a site to a specific set of computers. A custom site allows you to assign operator permissions for owning, writing, and reading a Site. External sites (except essential support sites) can have restrictions placed on both computers and operators, allowing a Master Operator to fine-tune the domain of a Site.

You can also assign roles to any site, allowing you to select pre-created directory access roles and grant them read privileges to the site. To access these extra properties, click the **Role Permissions** tab.



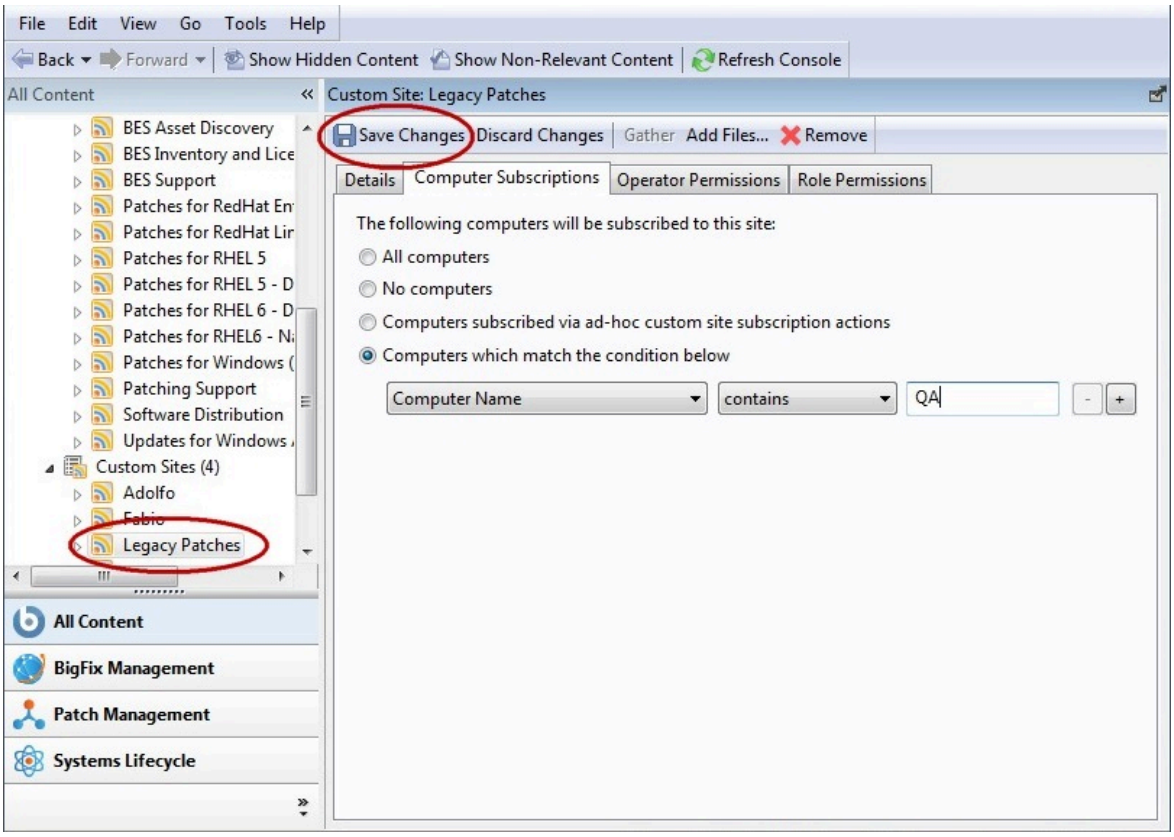
Click a role from the list, and use the buttons to assign or deny reader permissions.

Restricting Computers

There might be occasions where a BigFix Client or a group of Clients is storing redundant Fixlet messages, typically due to an overlap in site content.

In addition, some BigFix Clients might collect superfluous Fixlet messages, as when a Linux machine retrieves Windows Fixlets. This poses no problem to the operation of the program, which knows to ignore irrelevant or redundant Fixlet messages, but it might consume Client disk space. The **Site Subscription** dialog lets you narrow down the number of clients subscribed to the selected external Site. Here is how:

1. Select the desired site from the **Domain Panel**.



2. Select the **Computer Subscriptions** tab. You have several choices for selecting computers.
    - **All computers.** Click this button to automatically subscribe all Clients to this site. This is the default action.
    - **No computers.** Click here to unsubscribe all Clients.
    - **Computers subscribed via ad-hoc custom site subscription actions.** If you choose a custom site, this option is also available to flexibly assign computers on ad-hoc basis by creating an Action to subscribe relevant computers to the site.
    - **Computers which match the condition below.** Click here and then create a condition that must evaluate to TRUE for the BigFix Client to be subscribed to the site. The default is to parse computer names, but the pull-down list contains

several properties that you can use as useful subscription criteria. Press the plus sign to add more criteria. You can combine conditions by ANDing or ORing them.

3. When you are satisfied with how your computers subscribe to this site, click **Save Changes** from the Work Area Toolbar. Enter your private password to propagate the subscription request to your network.

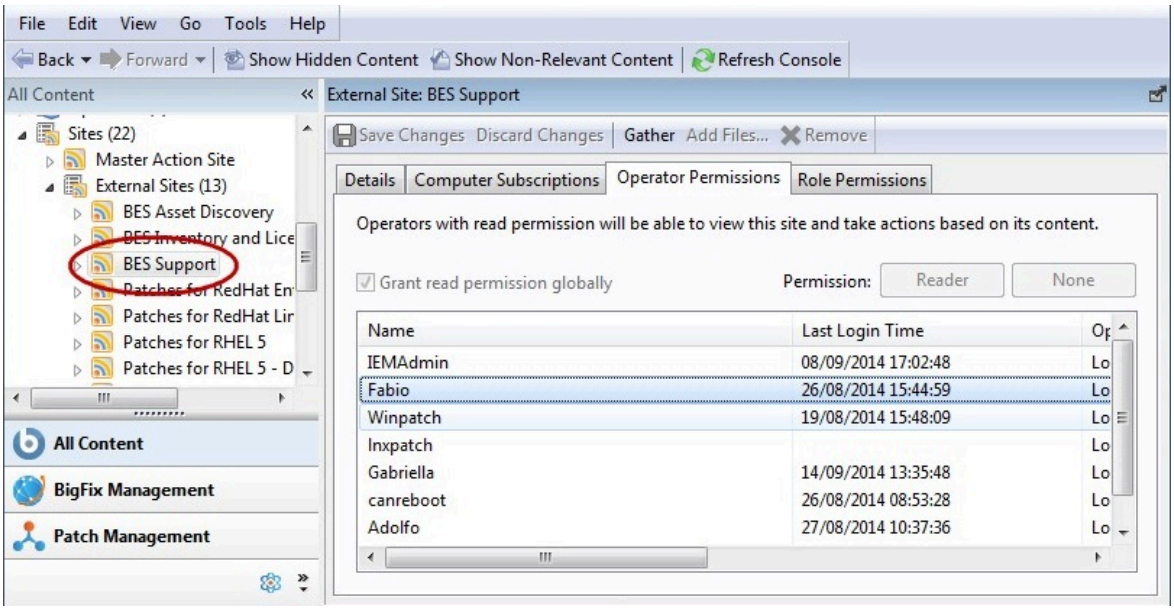
Restricting Readers

Restrictions can be placed on Sites to limit access.

As with operator permissions on Custom Sites, you can restrict both the operators and computers of most external Sites.

Not all operators need to know about all sites, and some sites might be most easily managed by a single operator, such as an appointed Anti-Virus Czar or the Finance IT Manager. If you have Master Operator privileges, you can limit how many Non-Master Operators are able to view any specified Site. Here is how:

1. Select the desired site from the **Domain Panel**.



2. The site properties are shown in the Work Area. Click **Operator Permissions**.

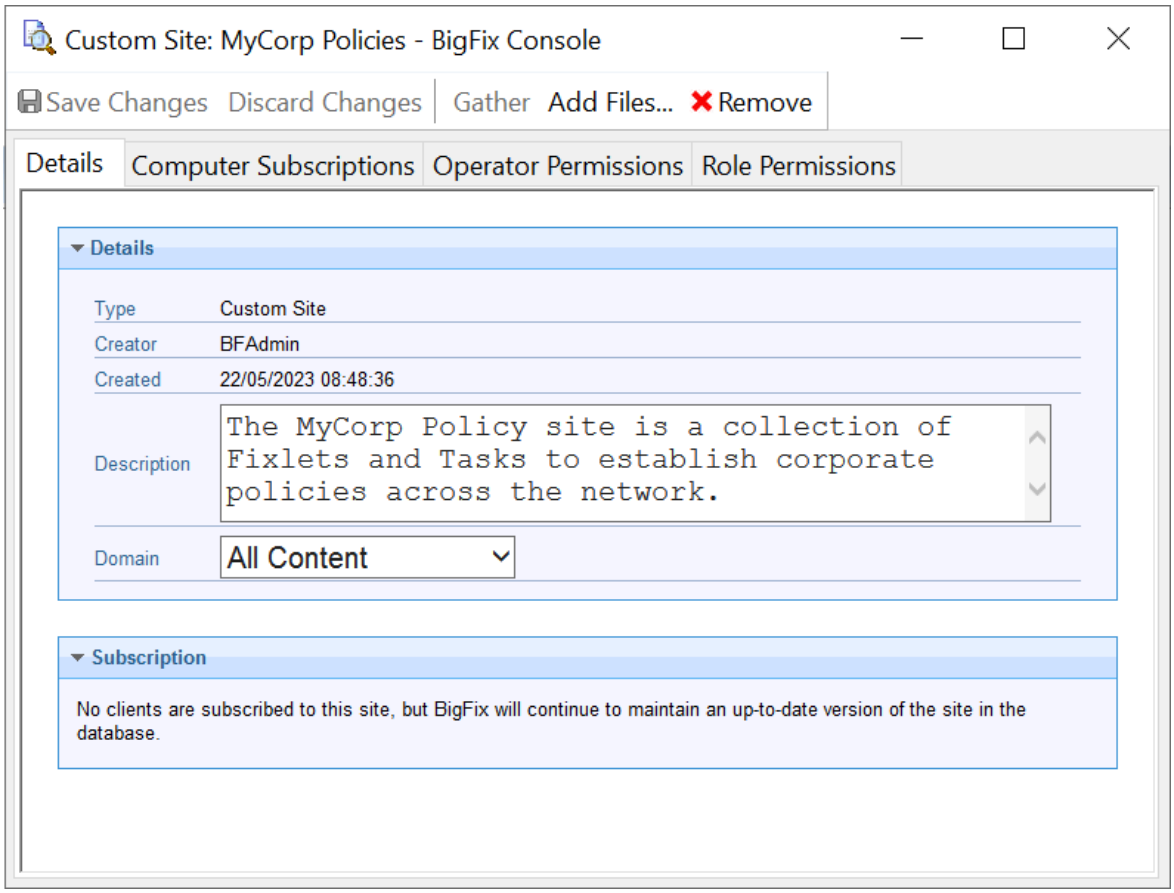
3. You can click the box to **Grant read permission globally**. Otherwise, clear the box and set permissions on a user-by-user basis.
4. When you are satisfied with your selections, click **OK**.

Creating Custom Sites

You can create a Custom Site to host your own Fixlet messages that are pertinent to your network.

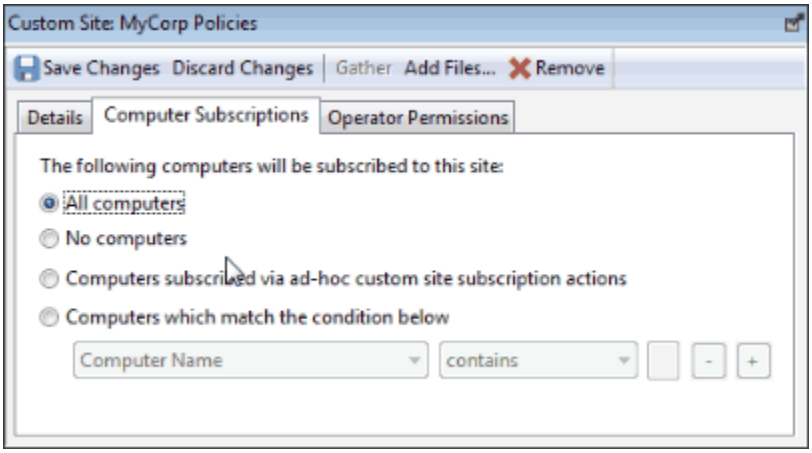
Perform these steps:

1. Select **Tools > Create Custom Site**.
2. You are prompted for a name for your custom site. Enter a name and click **OK**.
3. From the Domain panel, find your site under **Sites > Custom** and click it to describe your site.



From the **Details** tab, enter a description of your site. From the **Domain** pull-down menu, select a Domain to house your site.

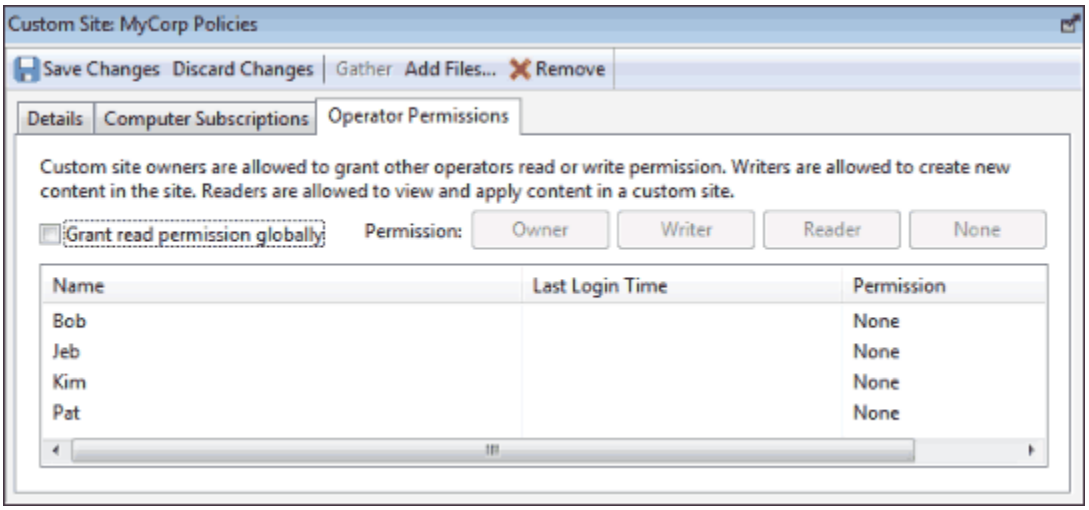
4. From the **Computer Subscriptions** tab, indicate which subset of your BigFix Client computers you want to subscribe to this site.



There are several choices:

- **All Computers**. Click this button to automatically subscribe all Clients to this site.
- **No Computers**. Click this button if you are not yet ready to subscribe any computers.
- **Computers subscribed via ad-hoc custom site subscription actions**. This choice requires you to create an Action to subscribe relevant computers to the site.
- **Computers which match the condition below**. This choice allows you to describe a set of criteria that must all evaluate to TRUE before a BigFix Client is subscribed. From the pull-down menu, you can select from dozens of properties to test for inclusion.

5. From the Operator Permissions tab, you can grant specific access permissions to specific operators.



There are several options:

- **Grant read permission globally**. Click this button to provide read permission to all operators.
- Or click specific Operators from the list and assign them specific rights, such as **Owner**, **Writer**, **Reader,** or **None**.

6. Click the **Save Changes** button above the work area to complete the description of your site. You must enter your password to propagate your new custom site.

Canceling a Subscription

You can try out different Site subscriptions for your organization, because no actions are ever taken without your approval.

Nevertheless, if you find that a subscription is not useful, you can cancel it by removing the site from the domain in which it is located, as follows:

1. In the Domain Panel, expand the icon containing **Sites**. From the **External** or **Custom** icon, select the site you want to delete.
2. Open the site and from the Work Area Tool bar, click the **Remove** button.
3. Click **Yes** on the confirmation dialog, and enter your password to complete the site removal.

Note: You cannot unsubscribe from the BigFix Support site because it is needed to upgrade and manage licensing issues in the Console program.

Adding Files to Sites

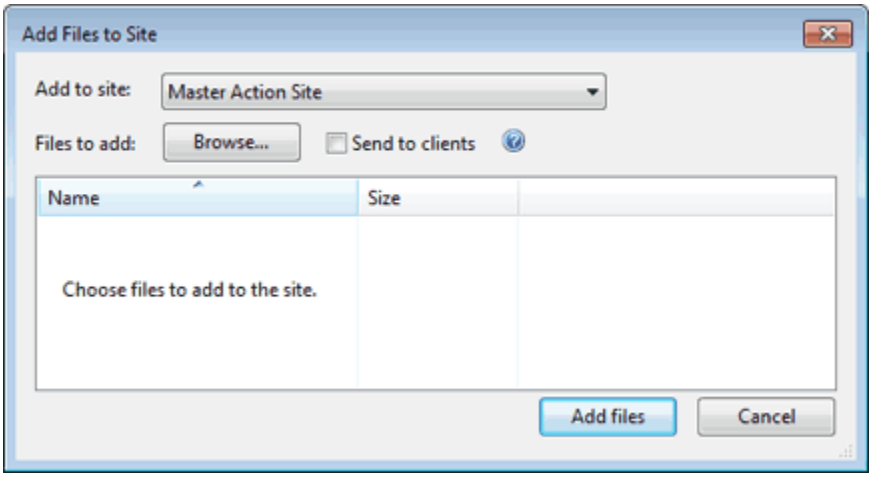
You can add files to a Site. These can be as simple as text and utility files or as powerful as Dashboards and Domains.

Files can be added to the master action site, custom sites, and operator sites, but you must have write permissions for the site. This means that only master operators can add files to the master action site, custom-site writers can only add files to custom sites and non-master operators can only add files to their own operator site. There are several useful things you can accomplish using this feature:

- Place utility files on all clients subscribed to a site
- Share custom dashboards with multiple console users
- Share custom domains with multiple console users

Here is how to add files to a site:

1. Select **Tools > Add Files to Site**. You can also navigate to the domain tree node for the site you want, right-click the **Files** subnode, and choose **Add Files** from the context menu. The **Add Files** dialog opens.



2. If you get to this dialog through the domain tree, your site is already selected. Otherwise, select the site you want from the **Add to site** pull-down.
3. Click the **Browse** button and then select all the files you want to add from the file-picker dialog. You can select multiple files and you can click the Browse button multiple times to add more files.
4. Check the **Send to clients** box if you want to deploy this file to all the clients that subscribe to the selected site.
5. When you are satisfied with the set of files you have selected, click **Add files** to finish.

There are a few restrictions on which files can be added:

- All file names in the site must be unique. In case of conflict, you are asked if you want to overwrite the existing file.
- Files with a **.fxf** extension cannot be added, because the client treats those files as Fixlet documents. Attempts to add files of this type cause an error.
- Files starting with "__" (double underline) cannot be added, because they are reserved for special site metadata. Attempts to add files of this type cause an error.
- If you attempt to add a large file (over 100 KB) and **Send to clients** is checked, a warning dialog opens. This is to notify you of a possible spike in network traffic if you proceed.

Some files are interpreted differently, according to their file extension:

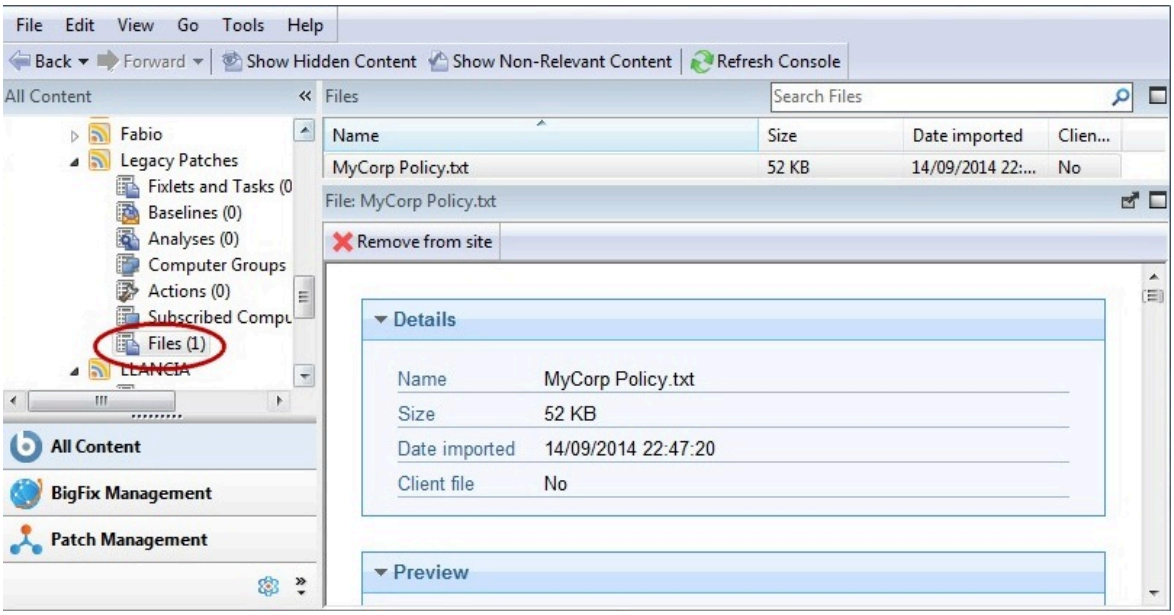
- **ojo:** A site file with the extension .ojo is loaded as a dashboard and is visible to all readers of the site. The dashboard is also visible in the **Dashboards** subnode of the site node in the domain tree.
- **BESDomain:** A site file with the extension .BESDomain is loaded as a domain visible to all readers of the site and is shown in the list of domains in the domain bar.
- **bfa:** A site file with the extension .bfa is treated as a BigFix archive file created by the bfarchive tool. The archive is unpacked, and all files are added.

Viewing and Deleting Site Files

After adding files to a site as described in **Adding Files to Sites**, you can view or delete these files.

The site files you created can be selected directly from the Domain tree:

1. Open the site of interest in the domain tree.
2. Click the **Files** node. The List Panel displays the files of interest. Click one to display it in the work area below.



3. The column headers in this list include:
   - **Name:** The name of your site file
   - **Size:** The size of the file
   - **Date imported:** The date that the file was imported to the site
   - **Client file:** Whether the file is downloaded by clients subscribed to the site
4. Click any file in this list to display informational details and a preview.
5. Click **Remove from site** if you want to delete this file from the site. Alternatively, you can select **Edit > Remove**. The same permissions used to add files are required to delete them.

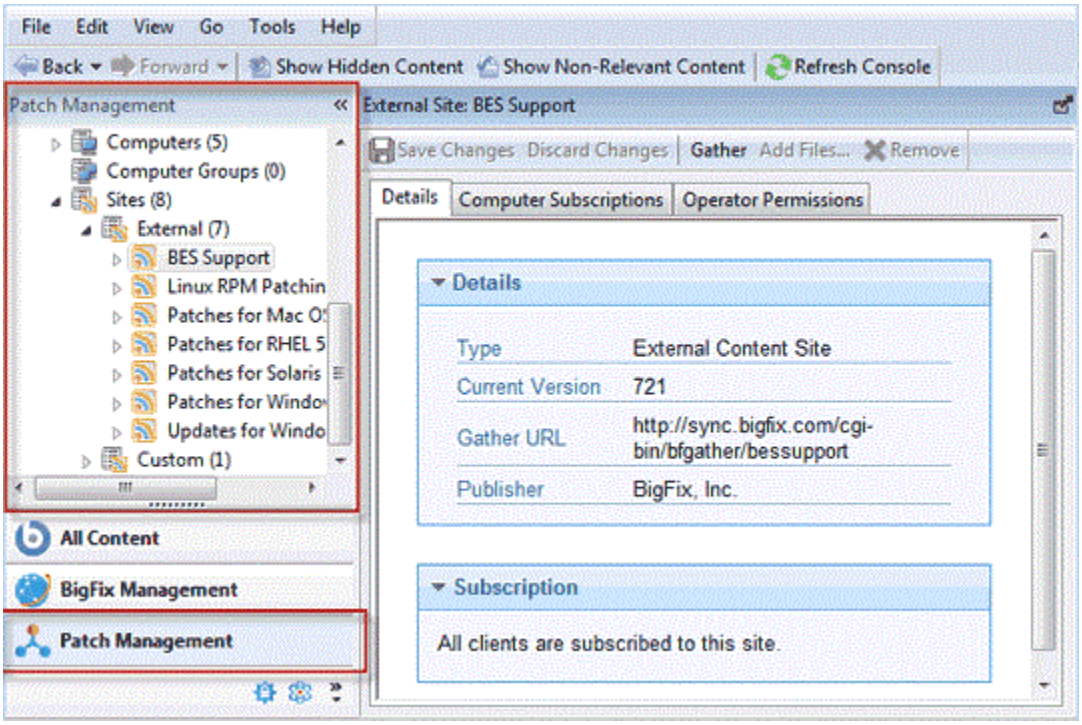
Chapter 5. Domains

Introducing Domains

Domains represent the major organizing principle in the BigFix Console.

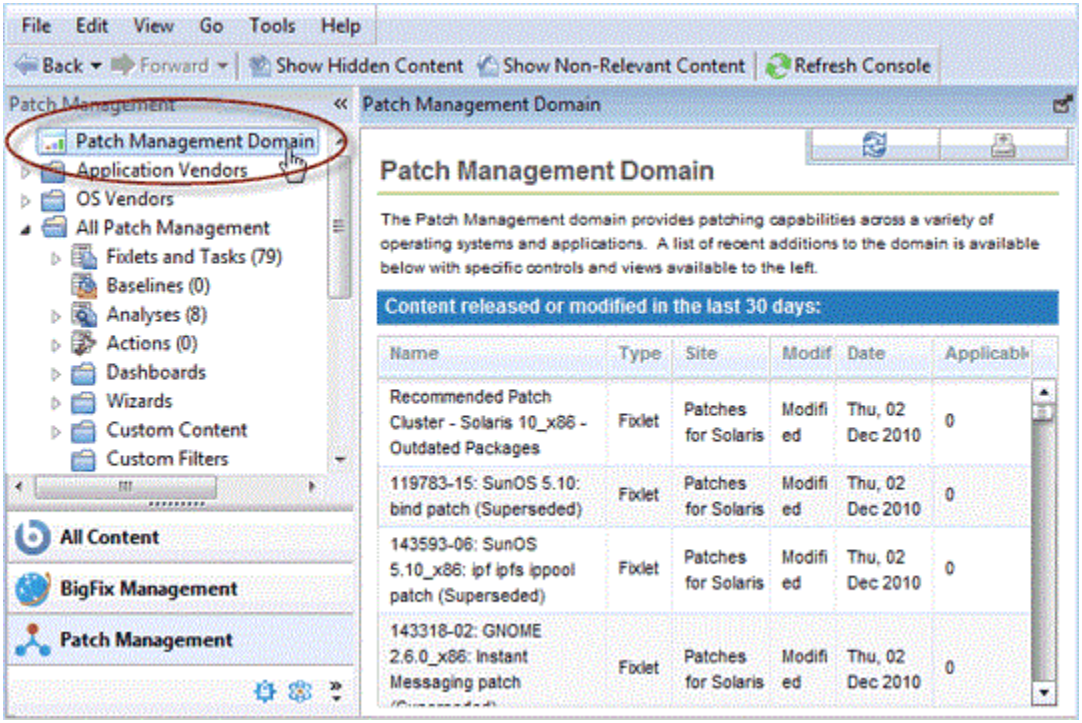
Domains contain a set of related sites, such as Patch Management for various operating systems. Domains are reflect the tasks of specific Console Operators, such as Patch Management, AntiVirus Management, Power Management, and so on.

Domains are located on the leftmost panel of the Console.



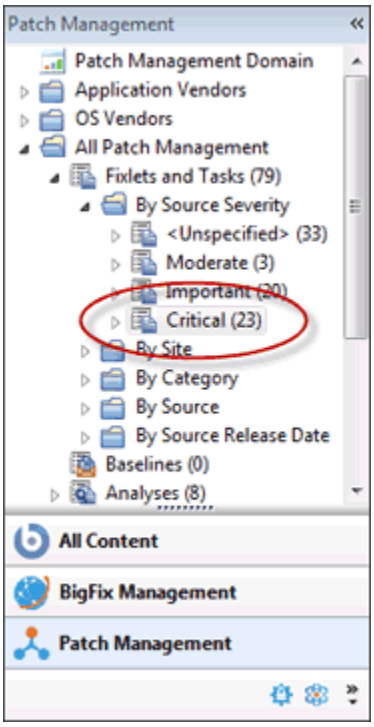
Select the Domain you want from the buttons at the bottom of the panel. The contents of the domain are then displayed. Some Domains have extra structure, such as Content Filters that allow you to narrow down the viewable content by Vendor.

Generally there is a Domain Overview, to help you understand the extent of the content.



This particular overview shows you at a glance what new Fixlets, Analyses, Tasks, and so on. have recently been added to the Domain.

In the **General Content** section, the information available can be further broken down by opening the various topics, content types and folders. For most topics here, a single click causes the contents to be shown in the List Panel, top right. On items with a disclosure icon (plus/minus or triangle icon), you can click it to open up filtering options. Drill down through any folders to reach a leaf node that represents a subset of the original topic. Now, in the List Panel, only the specified subset is displayed.



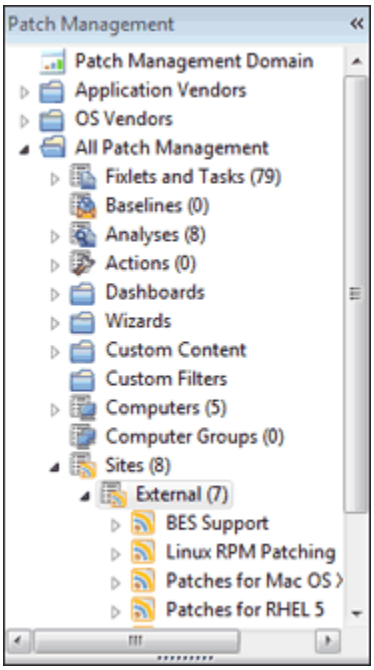
Here the **Fixlets and Tasks** have been opened to disclose the **Source Severity** folder. Within that folder, only the **Critical** Fixlets have been selected, making the resulting List Panel shorter and easier to deal with.

In general, there is a **Sites** section that you can open to examine the sites individually should you need. Different domains have different structures, so explore them.

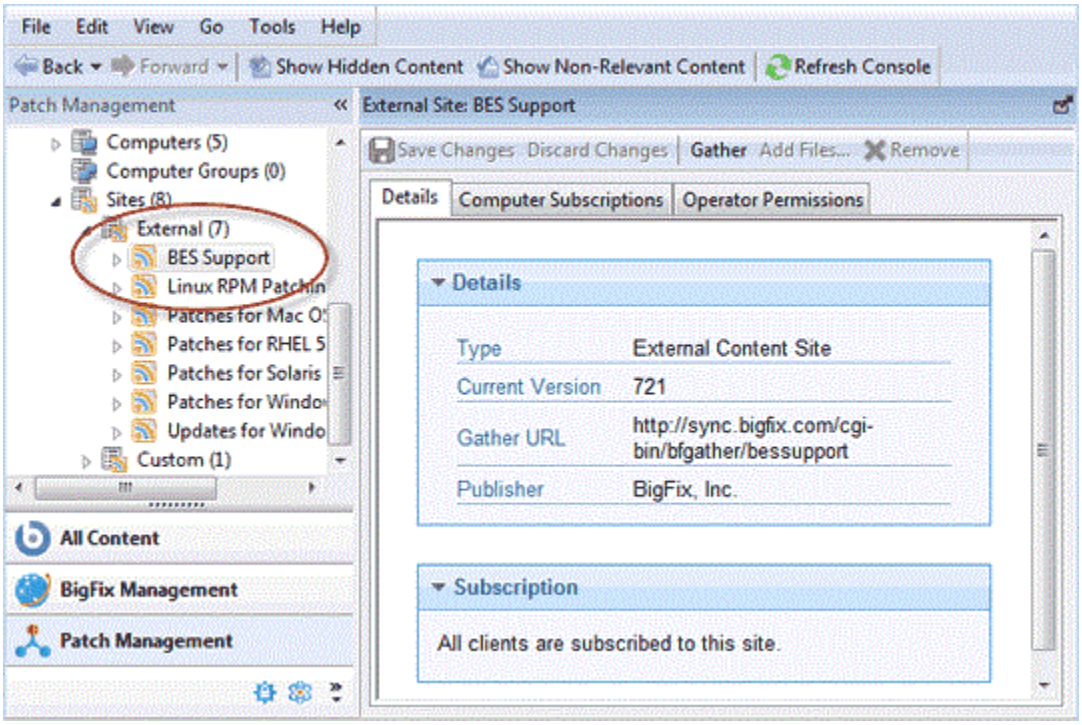
Domain Sites

Domains are composed of related sites, grouped together for convenience and because they share a similar structure.

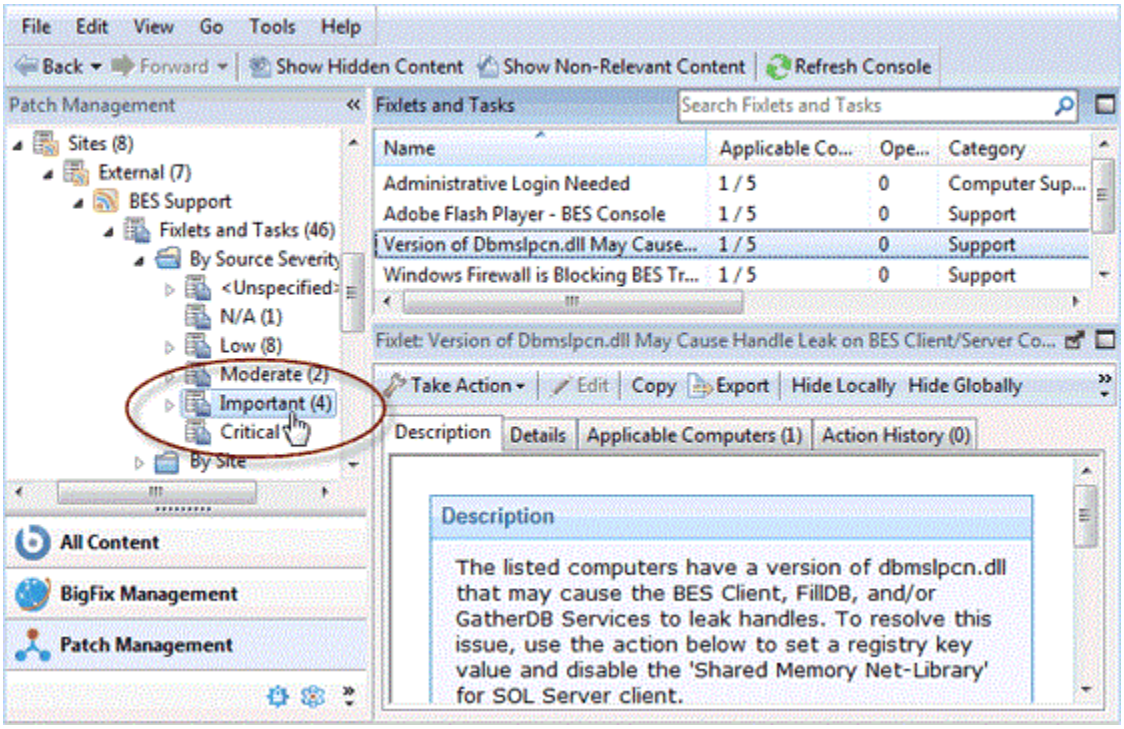
You can easily examine the Sites that comprise a Domain.



Find the **Sites** heading and click the disclosure icon, opening the navigation tree to **External** and **Custom** sites. Click the disclosure icon next to External to view the various Sites. Each site is clickable so you can examine its top-level properties.



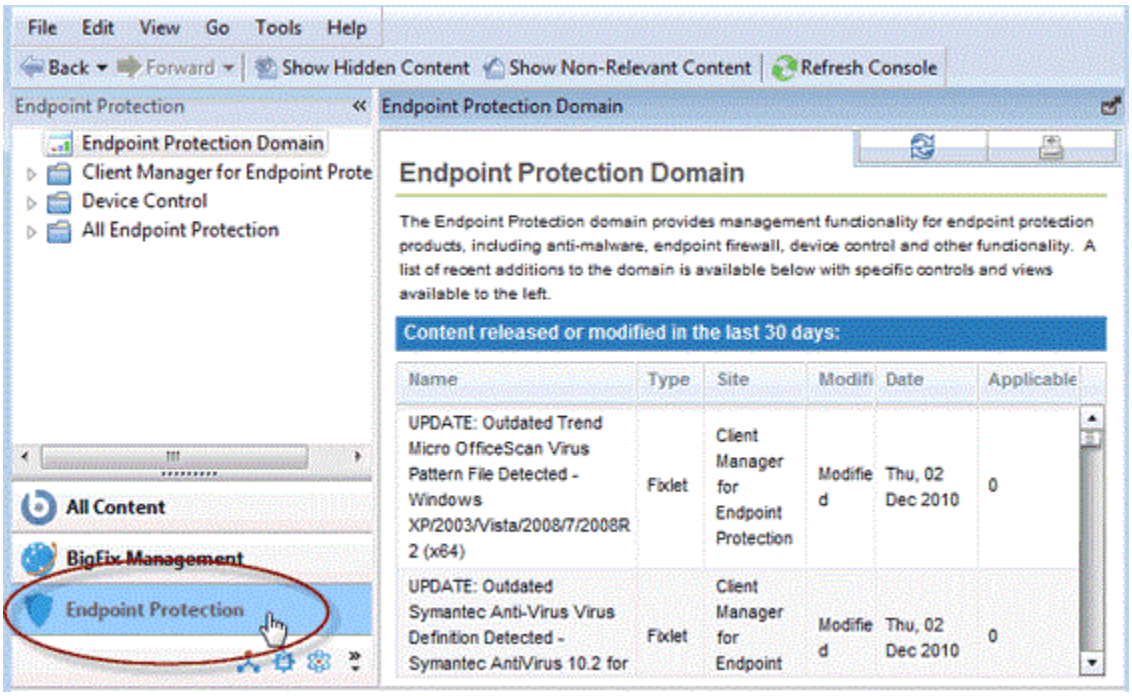
Click the disclosure icon next to the site icon to examine subsets of the data. You can continue to drill down until you reach a leaf node, allowing you to examine specific subsets of each site. When you reach the subset you want, the content is displayed in the List Panel.



Selecting Domains

You typically have several Domains available to you, each covering a group of related tasks that fall into the purview of a specified Console Operator.

As you add sites to your Console, they find their way into the appropriate Domains, and create new Domains when needed. The Domain Panel is on the left side of the Console, and buttons corresponding to the Domains are shown at the bottom of that panel.



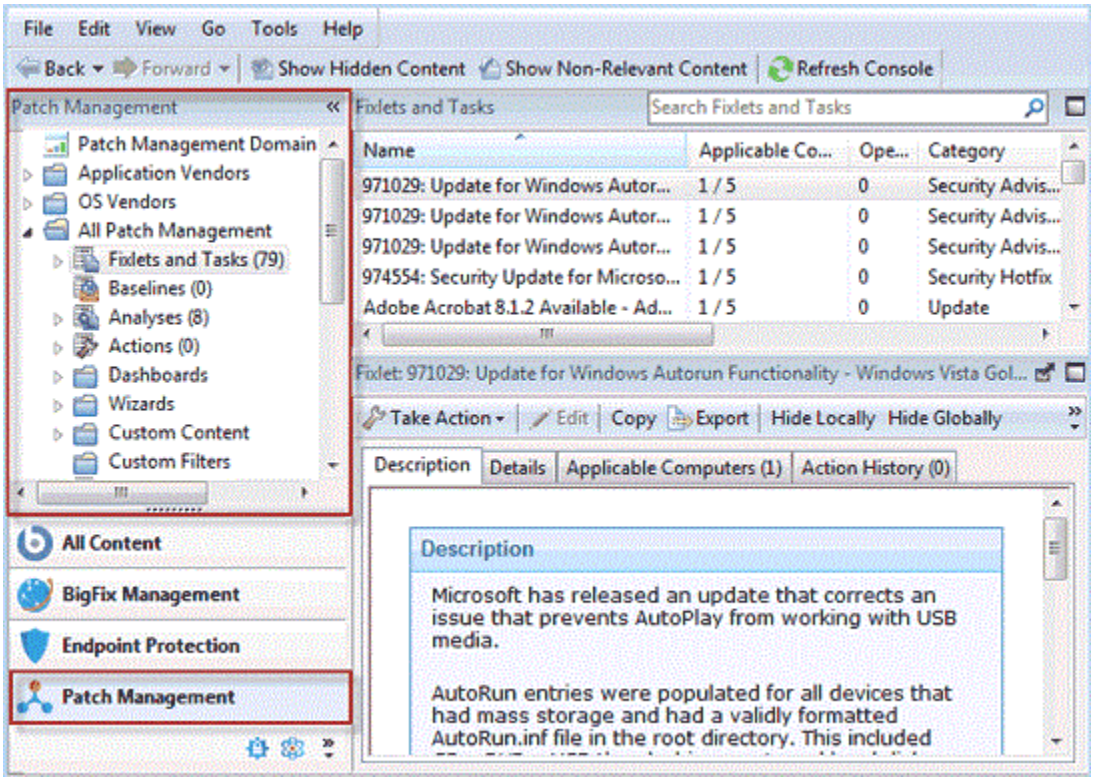
Depending on the Domain you click, an overview is typically displayed in the Work Area. It shows a list of the most recent additions to the content for a quick appraisal.

At the bottom of the button list is a pull-out menu that lets you adjust the number of buttons you want to display.

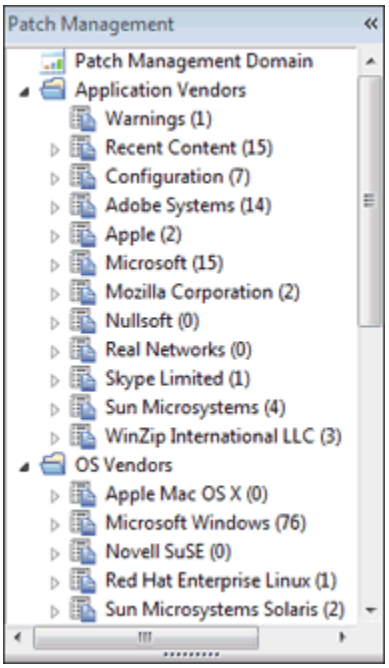
Navigating Domains

Domains are a logical collection of sites that all have similar purposes and structure.

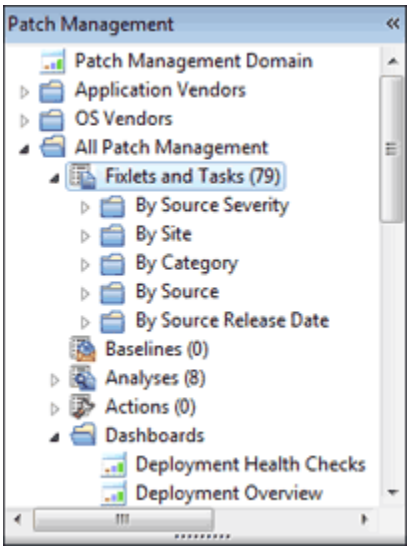
As a consequence, each Domain reflects a unique structure and displays its contents appropriately. Nevertheless, all sites have certain similarities in how they manage content, and a simple domain is sufficient to explore most of their options and how to navigate amongst them. The example used here is Patch Management.



Click the Domain button to view it in the Domain Panel. For this example, there are two folders, Application Vendors and OS Vendors that act as domain content filters. Not all domains have such filters, but they are fairly common when there is a benefit to grouping the information into logical partitions. Here, there is a way to group the content based either on the software vendor (such as Adobe, Mozilla, and so on.) or the OS vendor (Mac, Windows, Linux, and so on.). You can click the disclosure icon (either a plus-minus icon or a rotating triangle icon, depending on your operating system) or double-click the tree node itself to open it up and explore its subheaders.

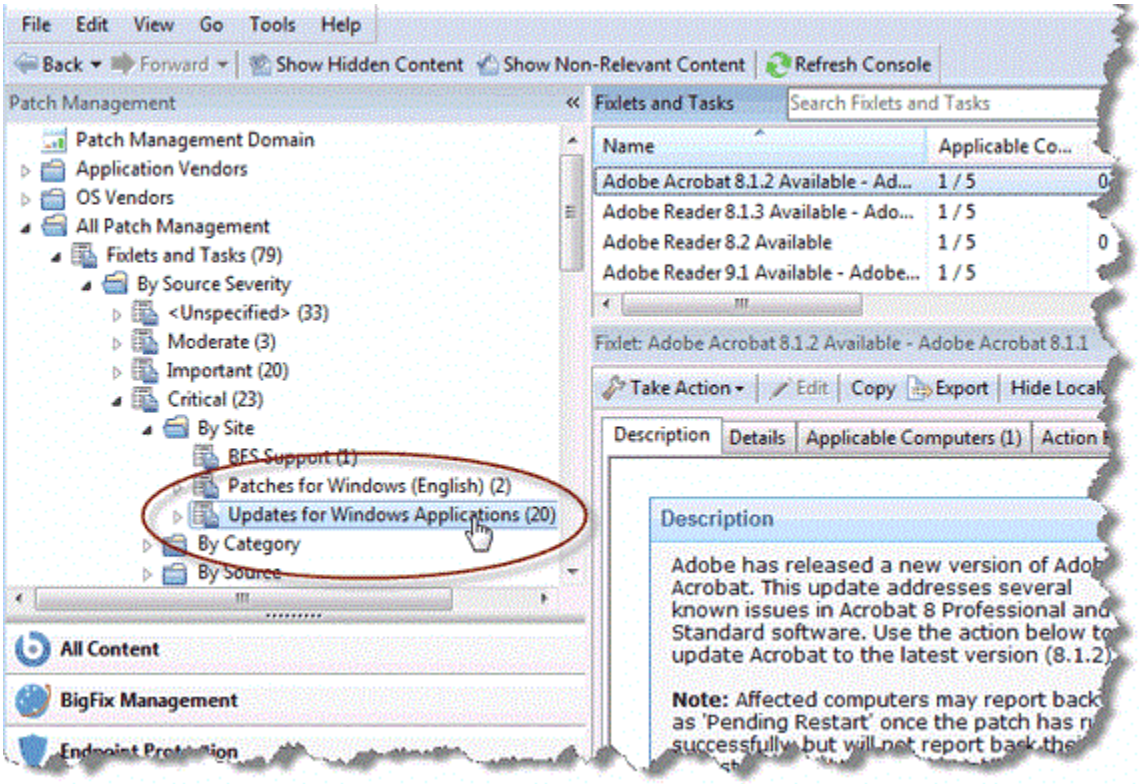


Below any domain filters, you find a more generic presentation of the domain content.



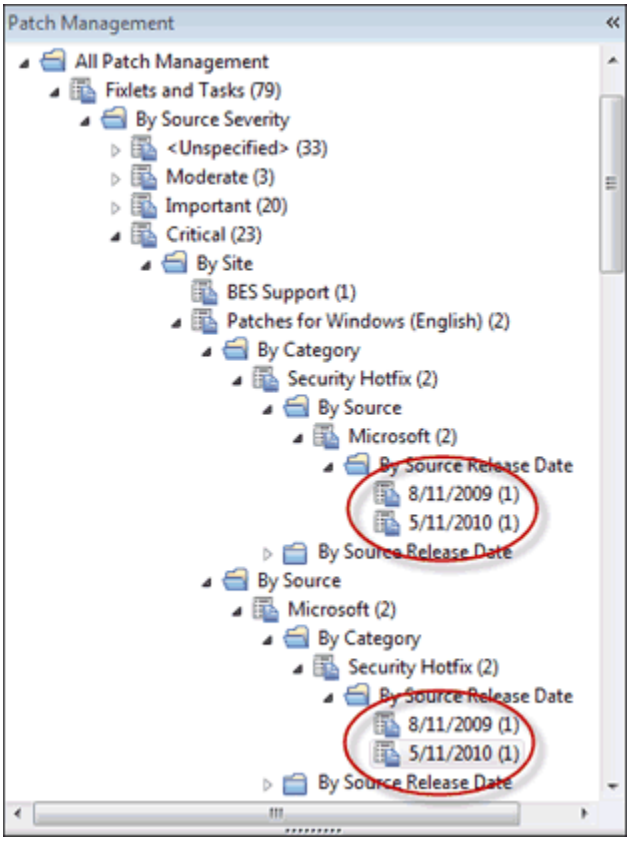
Notice the icon labeled **All Patch Management**. This icon represents the main content of this domain, and is composed of a union of Fixlets and Tasks combined from all the sites that make up this domain. You can open this category and drill down by sources or severity. Under the **Source Severity** folder is a breakdown of the content that allows you to select

only critical, important, or other categories of Fixlet severity to concentrate on. Click these icons once to view all the content that fits this criteria in the List Panel to the right.



Double-click to open the icon for further filtering of the content. For example, under **Source Severity > Critical** you can filter the resulting set of critical Fixlets **by Site**. Finally, at the leaf node, you can click an icon to produce a list of the severity- and site-filtered content in the List Panel. As you drill down, you are ANDing the various filters, producing a smaller and more targeted set at each level.

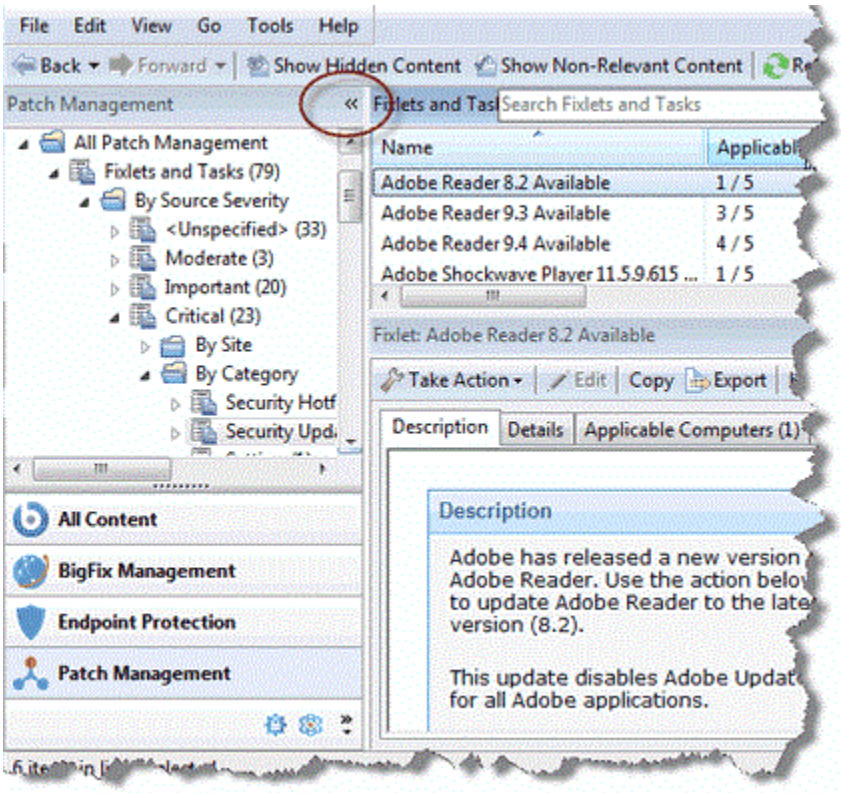
All of these navigation icons work in the same way. A single click highlights the particular category and a double click opens it for further refinement. In general, each icon can be a destination or the head of a new tree to examine. When you click it, the particular subset of data implied by that icon opens in the List Panel to the right. The drill-down ends at an ultimate leaf node, where all the possible fields have been exhaustively ANDed together. Note that there are many ways to achieve the same subset of leaf items. because the field criteria are simply ANDed together, it does not matter which order you choose.



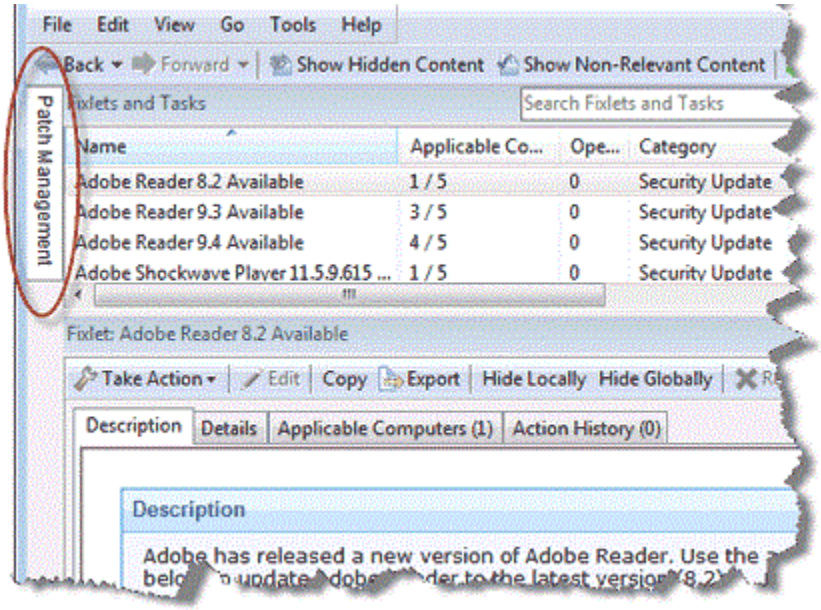
Note that **Fixlets, Tasks, Analyses, Actions, Baselines, Computers,** and **Computer Groups** are almost always represented in the main navigation tree of any given Domain. Other content, such as filters, custom content, and custom sites are often represented as well. As the Operator responsible for a Domain, you should find it easy to see the overall structure at a glance. You soon become familiar with drilling down to filter and narrow your selections.

Minimizing the Domain Panel

If you need more panel space, you can minimize the Domain Panel by clicking the minimize icon at the upper right of the panel.



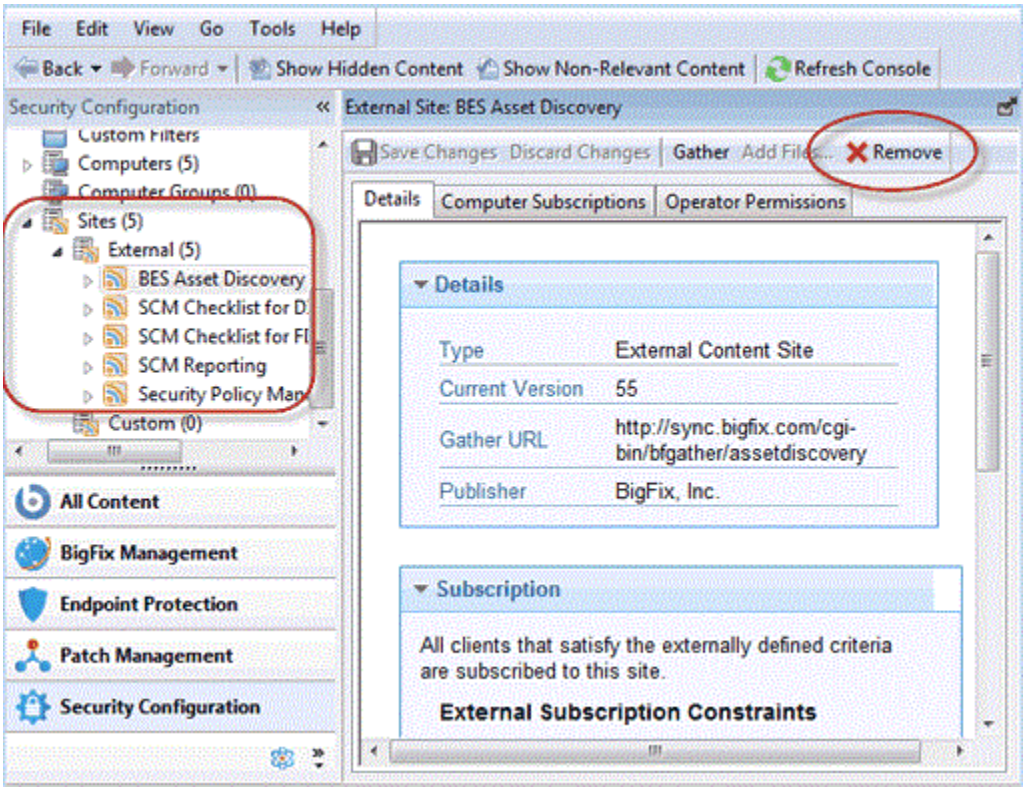
This reduces the panel to a small stub at the left of the Console window. To restore the Domain Panel, click the stub.



Deleting Domains

A domain can be deleted when all of its constituent sites have been deleted.

In the Domain Panel, find the icon for the collection of sites.



Open the site icon, and navigate to External sites. Double-click each site in turn and use the **Remove** button at the top of the Work Area to delete all of the sites that exist there. Do the same for any Internal sites. The domain is no longer visible.

Chapter 6. Roles

Introducing Roles

Roles provide a powerful tool to help you organize and grant complex permissions.

Like groups, roles can have various members defined, but each role includes implicit permissions.

You may have already assigned permissions to your console operators, so when you also assign a role to that user you will effectively expand their permissions. When permissions conflict, the highest level will be selected.

To view the available roles, select **All Content** from the domain panel and select the node labeled **Roles**. From the list that appears, select the computers, operators, groups and sites that you want to associate with the role.

In a BigFix Distributed Server Architecture (DSA) environment, where multiple servers are installed, you can perform actions related to roles only on primary servers. When on a secondary server, you cannot create, modify, or delete roles. Any attempt to perform these actions is prevented and you get the following error message:

```
This operation requires a role change that can be performed only on the
 main server.
```

Creating Roles

You can create roles to define a set of permissions that can be shared by various operators.

Roles allow you to create a generic category of permissions. You can then associate individual operators, computers, groups and sites to the role.

To create a role, perform the following steps:

1. Click **Tools > Create Role** or right click in the Roles work area and select **Create Role**. The Create Role dialog appears and prompts you for a name.
2. Enter a descriptive name for your role. The role panel opens.

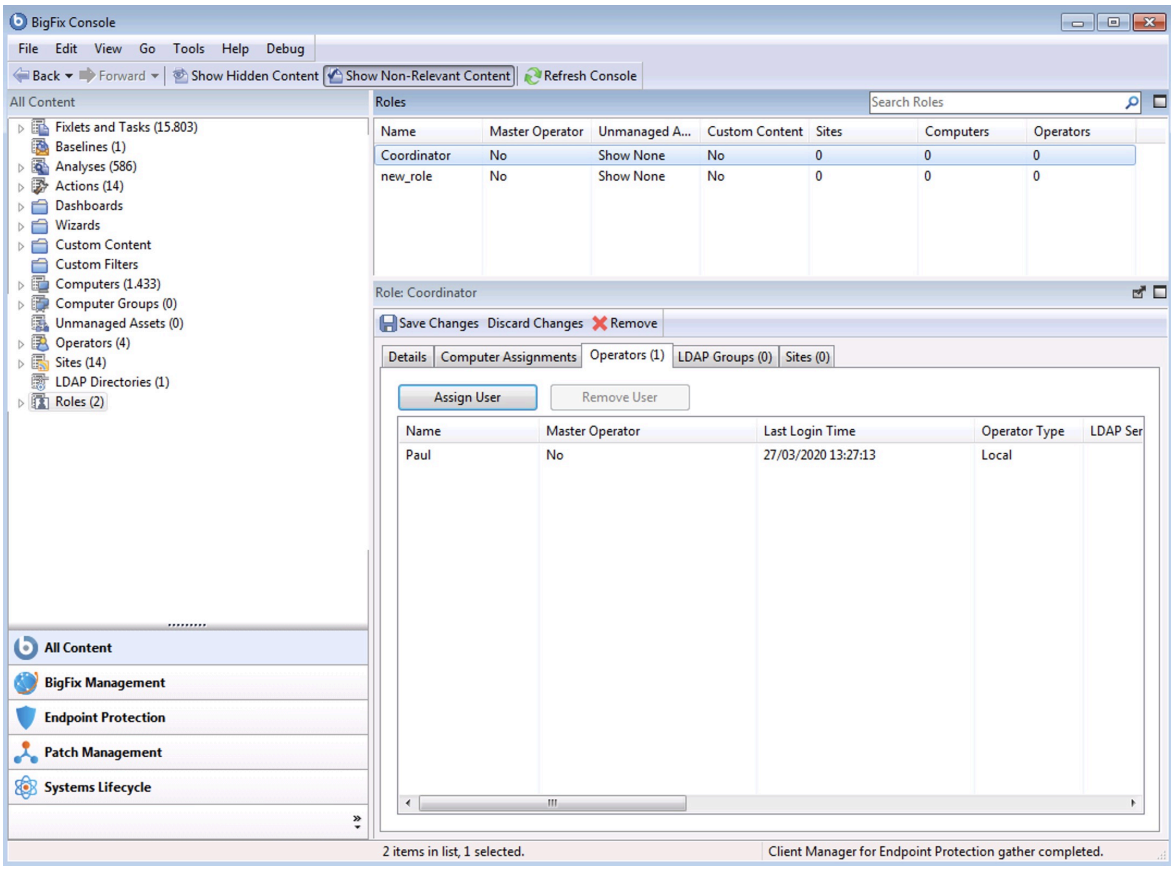
3. Optionally, enter a short description of the role. Set the permission levels associated to the role, the restart and shutdown ability, and the permissions to access the BigFix user interfaces. The fields listed in this tab correspond to the fields listed in the Operator's Details tab and documented in Adding Local Operators.
4. Set the computer assignments, operators, LDAP groups, sites, and WebUI Applications to associate to the role by clicking the various tabs.
5. Make sure to click **Save Changes** when you're done.

Assigning Roles

Once you have created a role and set its permissions, you can assign console operators, client computers, LDAP groups and Fixlet sites to that role.

To accomplish this task, perform the following steps:

1. Click **All Content** in the domain panel and then select the node labelled **Roles**. The list of currently defined roles is displayed.
2. Click the role to which you want to associate objects. The Role dialog opens.



3. Click on the tabs to assign specific objects to the role. Each tab contains a button to add or assign objects to the role.
4. Click the Add or Assign button to bring up a dialog that lets you select one or more items to associate to the specified role. In the case where permissions conflict, the least restrictive permissions have priority.
5. Make sure to click **Save Changes** when you're done.

Chapter 7. Client Computers

Introducing Client Computers

Client Computers represent those computers in your network running the BigFix Client.

When the client software is installed, you have a high level of control over these machines, allowing you to maintain common operating environments, roll out the latest patches, detect spyware, view and summarize properties, create reports, and much more.

Client computers can have settings applied to handle a multiplicity of features, including the ability to define and organize corporate departments. Client computers can be automatically grouped according to these settings or other computer properties, allowing you to target specialized remediation to distinct domains. Settings are used to define Relays, bandwidth, idle time, buffers, and much more.

The Computers icon in the Domain Panel navigation tree in the main interface lets you quickly see your network, with the ability to filter and sort large numbers of computers by dozens of properties.

The Visualization Tool allows you to quickly monitor large, globally distributed networks, and follow remediation deployments and compliance, corporate-wide. Web Reports allow operators with access to a browser to view audit trails and generate listings and graphical reports with just a few mouse-clicks.

Running actions on the computers

You can perform the following actions on the computers.

Send Refresh

If you right-click any computer and select **Send Refresh**, the computer information displayed is refreshed.

Send Wake on LAN Request

If you right-click any computer and select **Send Wake on LAN Request**, the computer is powered on.

If the subnet the computer belongs to does not have an active Wake-on-LAN packet forwarder, BigFix will not be able to power on the computer.

Send Client Alert Request

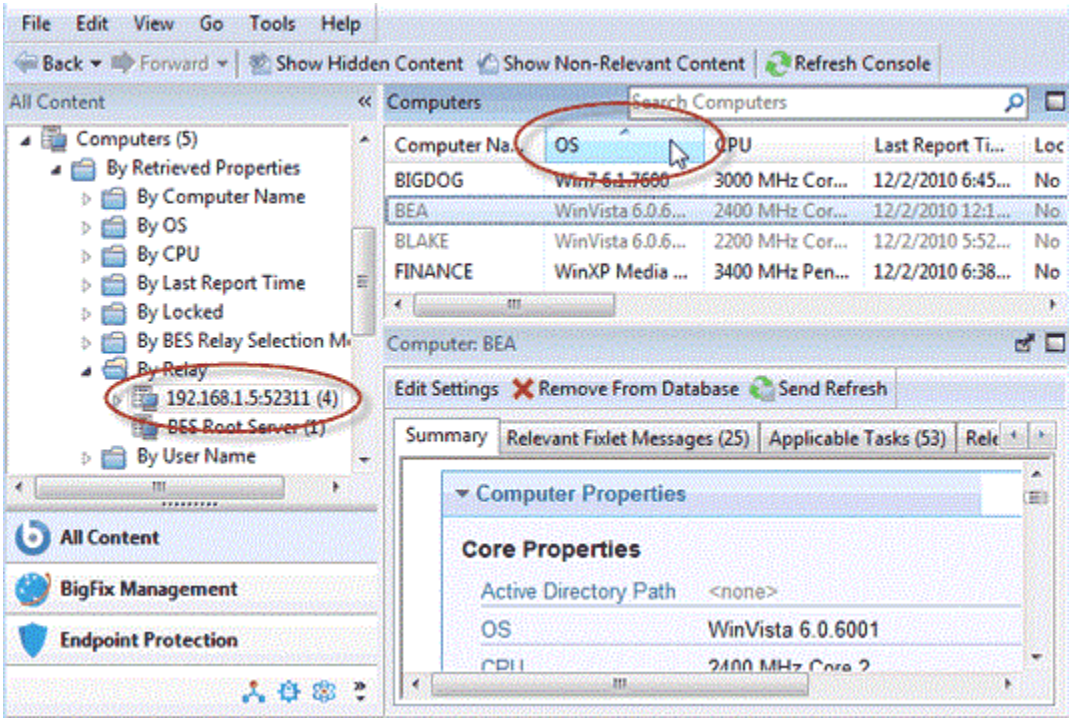
If you right-click any computer and select **Send Client Alert Request**, the computer that is sleeping in deep mode is woken up and performs a full cycle to go through all the content before going back to sleep again if nothing has changed.

Monitoring Computer Status

BigFix can be used to analyze the computers in your network.

Using the Relevance Language, you can query any BigFix Client and get a real-time response. This can be invaluable for analyzing trends and potential problem areas on your network. To view the computers in your network, sorted and filtered by various properties, follow these steps:

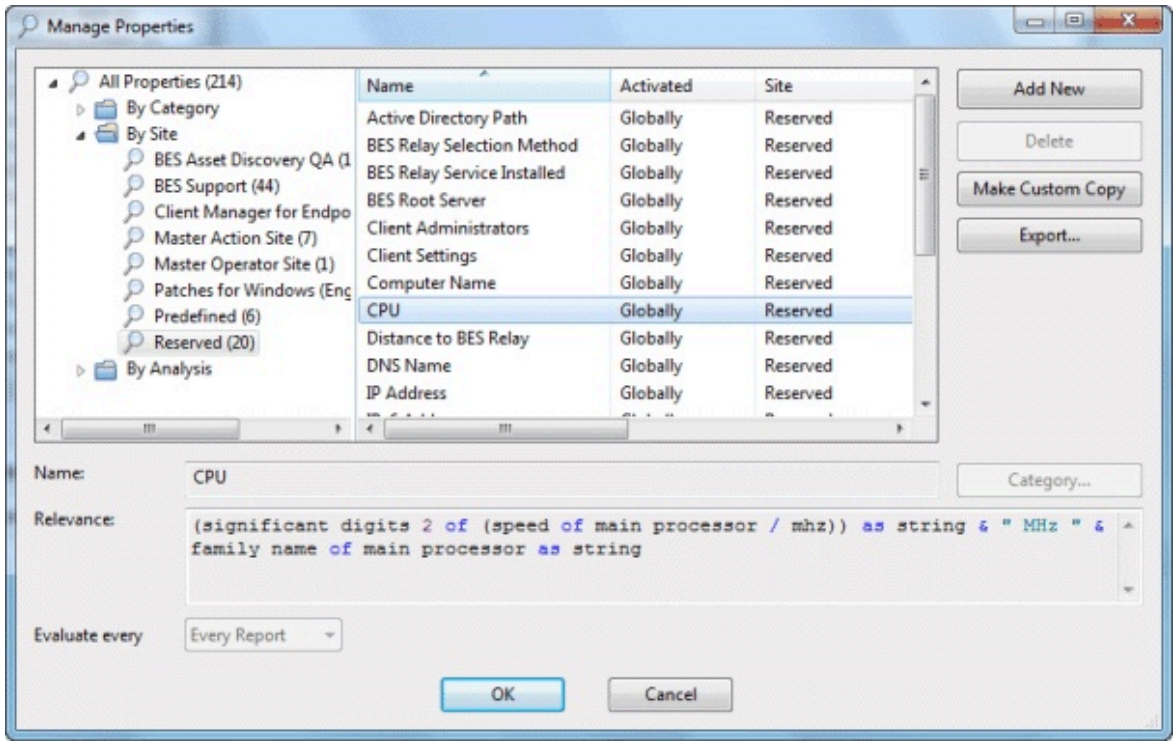
1. Select the **Computers** icon in the Domain Panel navigation tree. Your networked Client computers are shown in the List Panel, ready to be sorted and filtered by various properties.
2. Click **By Retrieved Properties** (in the navigation tree under the **Computers** icon) and open folders to filter the list.



Click the desired column headers in the resulting List Panel to sort the list. Click again to reverse the sort order.

The folder names and column headers represent important, continuously updated properties of your networked computers, called retrieved properties. To view the Relevance Expressions that define the column headers:

1. Select **Manage Properties** from the **Tools** menu. A dialog opens, initially listing the default properties that come predefined by BigFix, such as **OS, CPU, Computer Name,** and so on.
2. Click a retrieved property. In the text box underneath, you can view the Relevance Expressions that are used to define this column.



For example, the column heading **CPU** is generated by the following Relevance Expression:

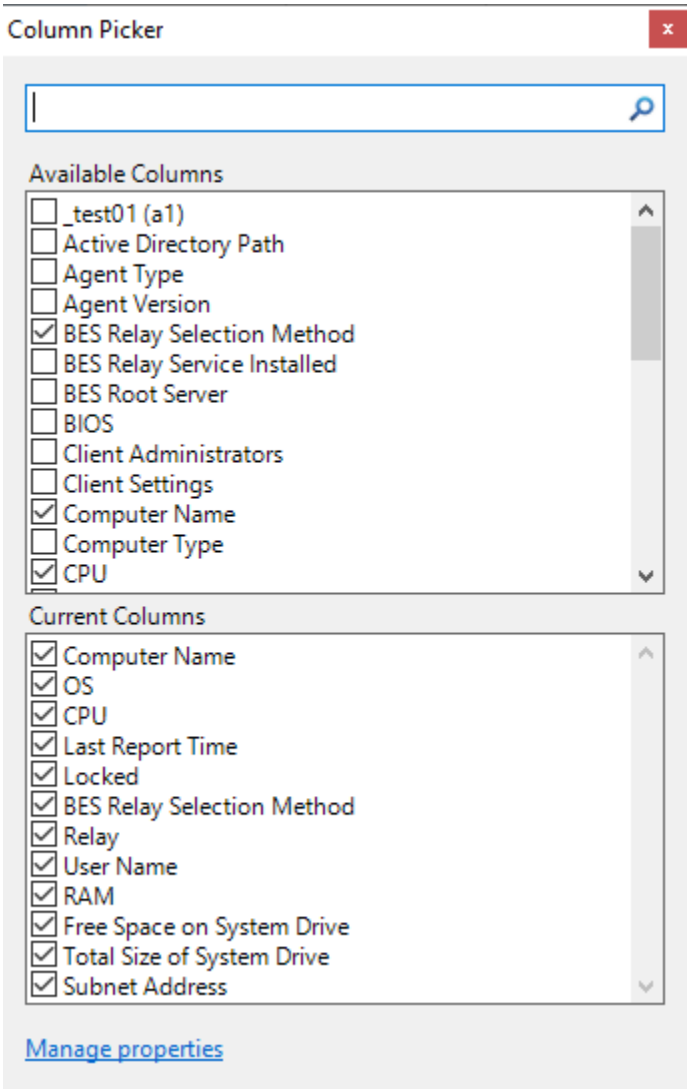
(significant digits 2 of (speed of main processor / mhz)) as string & "Mhz" & family name of main processor...

That is, **CPU** is a concatenation of relevance expressions and strings that produces an output like:

2800 Mhz Pentium 4

3. Each property has an evaluation period. The shorter the period, the more often the client evaluates it. This makes the Console more up-to-date, but it might impact client performance. Make sure long periods are allocated to time-consuming or slowly changing Relevance evaluations.

You can quickly select which properties to display by right-clicking the column headers of any Computer List Panel. A pop-up menu is displayed that allows you to check or uncheck the properties you want to display. Notice that when you delete a property from the headers, it is also removed from the navigation tree under the Computers tab.



Starting from BigFix Version 11.0.3:

- The column picker shows the first 1000 properties only.
- The complete list is available in the **Manage Properties** dialog only.
- To add/remove a property among those visualized through the column picker, you need to search for it.
- The ^ character can be used to indicate the beginning of a property name.

- The $ character can be used to indicate the end of a property name.
- If the name of a property starts with a ^ or ends with a $, these characters need to be 'duplicated'.

Some examples of property searches are:

```
License
^Computer
OS$
^BIOS$
propertyWithADollarAtTheEnd$$
^^propertyThatStartsWithACaret
```

Grouping Computers

The BigFix Console allows you to group your computers to target them more efficiently.

You might want to group your development computers, for example, to make sure you do not interfere with certain legacy software projects. There are several ways to group computers, but the two most common techniques are **Manual Grouping** and **Automatic Grouping**. Manual groups are static, but automatic groups can change dynamically, depending on the current values of the inclusion properties.

When grouped, you have provided yourself with a simple way to filter and separate your networked computers. Open the Computers icon in the Domain Panel navigation tree and select the folder named **By Group**. Then you can select the group or groups you want to list. Alternatively, you can click the **Computer Groups** icon and select groups under that icon as well.

Whenever a list of computers is presented, you should find the **By Group** folder. For example, when you click an Action button in a Fixlet or Task, you see the **Relevant Computers** icon, listing just those computers that are affected by the selected Fixlet. Open the **By Group** folder to narrow down the list of computers to just the selected groups.



Note: A computer can belong to more than one group.

Commenting on Computers

You can attach a comment to a BigFix Client Computer, which other operators can read.

Perform these steps:

1. Select the **Computers** icon in the Domain Panel navigation tree and open it if you want to choose one of the Computer subcategories to narrow down your list.
2. Select a computer from the List Panel on the right by clicking it.
3. From the document panel below, select the **Summary** tab.
4. Scroll to the bottom of the page, type your comment into the text box, and click the **Add Comment** Button.

Your comment is name- and time-stamped for other operators to view it. As well as Computers, you can attach comments to Fixlets, Tasks, Actions, and Analyses.

Creating Retrieved Properties

You can collect information from BigFix Clients by defining various retrieved properties.

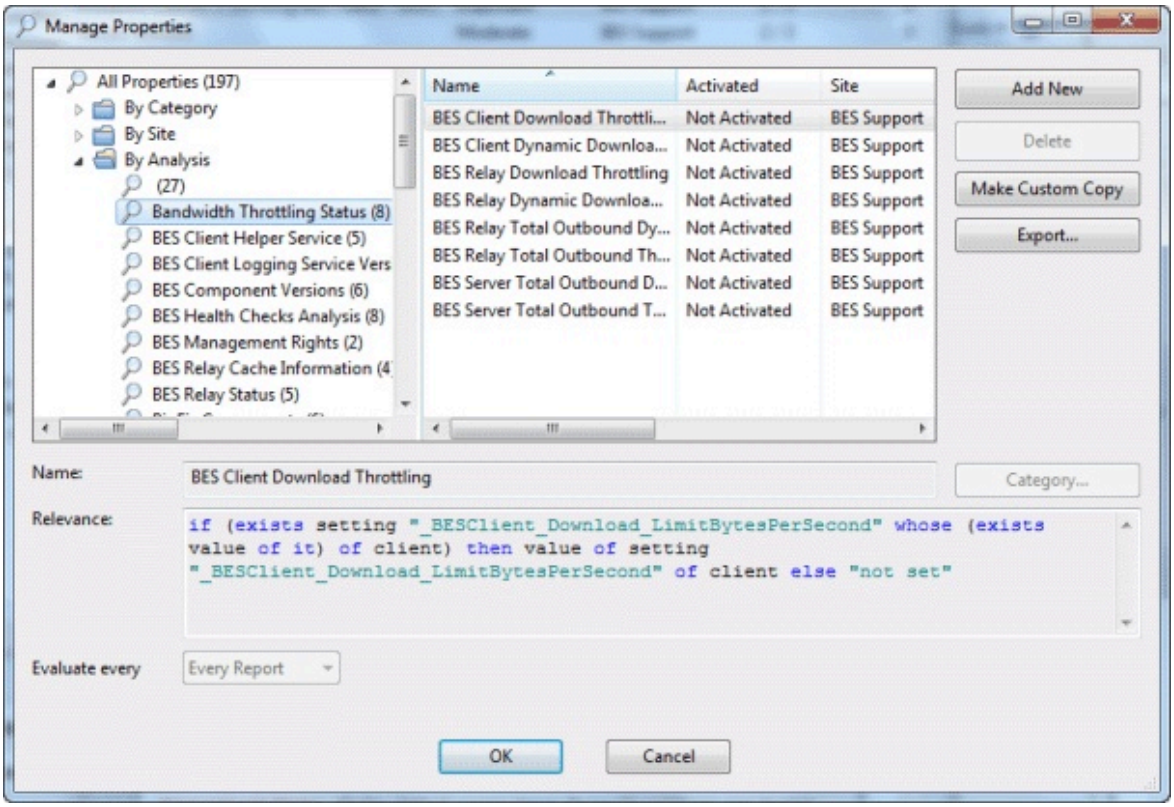
A large range of computer attributes can be monitored as retrieved properties. There are several reasons why you might want to create some custom retrieved properties of your own:

- When you create a retrieved property it can be used as a filter in all subsequent computer listings, allowing you to control data sets that might otherwise be difficult to visualize.
- Your newly-created properties are added to the column headers of computer listings, allowing you to sort on their values.
- Retrieved properties can be used to fine-tune the targeting of Fixlet actions.
- Retrieved properties can also be used and charted in Web Reports.

BigFix includes a predefined set of retrieved properties, which are sufficient to group computers by many frequently requested criteria. There are times, however, when you might want even more control over how your Clients are grouped and sorted.

To create a custom retrieved property, follow these steps:

1. Choose **Tools > Manage Properties**. The Manage Properties dialog is displayed.



   You can filter the properties by using the left filter panel to select a subset of the properties to view on the right.
2. If you cannot find what you want in this list, create a new property: click **Add New**, type in the name of your new retrieved property and create a Relevance Expression to evaluate. This can access hardware characteristics, registry entries, and even data in specific files on the client computers. After you define the new property, the Clients automatically compute the value of the corresponding relevance expression and return it to the Database.
3. Click the **OK** button.

Note: Some of these properties are aimed at specific operating systems and return a blank string for other operating systems. If more than one result is retrieved for a property, the entire list is retrieved.

Creating Client Dashboards

You can create custom BigFix Client Dashboards, similar to those in the Console.

Dashboards are HTML files with embedded Relevance clauses that can analyze the local computer and print out the current results. Clients with a dashboard have an extra tab to display the resulting report.

To create a Client Dashboard, you must create a new folder named __UISupport (note the two leading underscores) in the __BESData folder. This is a subfolder of the BES Client folder, so the final path name looks like:

Program Files/BigFix Enterprise/BES Client/__BESData/__UISupport

Place the Dashboard file (named _dashboard.html) and any accompanying graphics files into this folder. The next time the Client starts up, it incorporates these files into its interface, adding a tab labeled **Dashboard**. When the user clicks this tab, the Dashboard calculates the latest values of each Relevance clause and displays them.

The Relevance statements are embedded in the HTML inside special tags with the form:

```
<?relevance statement ?>
```

For example, to find and print the time, use the following:

```
<?relevance now ?>
```

When the Client displays the page containing this statement, it evaluates the Relevance clause "now" and substitutes the value for the tag. The following sample HTML prints out the word "Date:" and then the current date and time:

```
<html>
 <body>
  Date: <?relevance now ?>
```

```
 </body>
</html>
```

To allow the user to refresh the Relevance evaluation, add this line to the file:

```
<html>
 <body>
  Date: <?relevance now ?>
  <A href="cid:load?page=_dashboard.html">Refresh</A>
 </body>
</html>
```

This link, labeled Refresh, causes the page to reload. When it does, it reevaluates the relevance clauses. It is easy to see how you would add other Relevance expressions to this page. For example, to print out the OS and the computer name, add these two lines:

```
<html>
 <body>
  Date: <?relevance now ?>
  Operating System: <?relevance name of operating system ?>
  Computer Name:<?relevance computer name ?>
  <A href="cid:load?page=_dashboard.html"> Refresh </A>
 </body>
</html>
```

You can use style sheets to format the output. You can even use the default style-sheet, **offer.css** for some preset formatting. Here is an example of a Dashboard with a title, a header, a refresh link, and a section of retrieved property values:

```
<html>
   <head>
    <link type="text/css" rel="stylesheet" ref="offer.css"></link>
    <title> Dashboard Example</title>
   </head>
 <body>
```

```
  <div class="header">
   <div class="headerTitle">
   <font size="6"><?relevance computer name ?></font></div>
     <div class="headerCategory">
      <font size="1">(Last updated: <?relevance now ?>)</font><BR>
       <div>
        <font size="1"><a
 href="cid:load?page=_dashboard.html">Refresh</a></font>
       </div>
     </div>
  </div>
  <div class="section">
   <div class="sectionHeader">Computer Information</div>
   <div class="subsection">
    <table>
     <tr><td valign="top"> OS: </td>
         <td><?relevance operating system ?></td></tr>
     <tr><td valign="top"> RAM: </td>
         <td><?relevance (size of ram)/1048576 ?> MB</td></tr>
     <tr><td valign="top"> DNS Name: </td>
         <td><?relevance dns name ?></td></tr>
    </table>
   </div>
  </div>
 </body>
</html>
```

To learn more about Relevance expressions, see the **Relevance Language Reference**.

Locking Computers

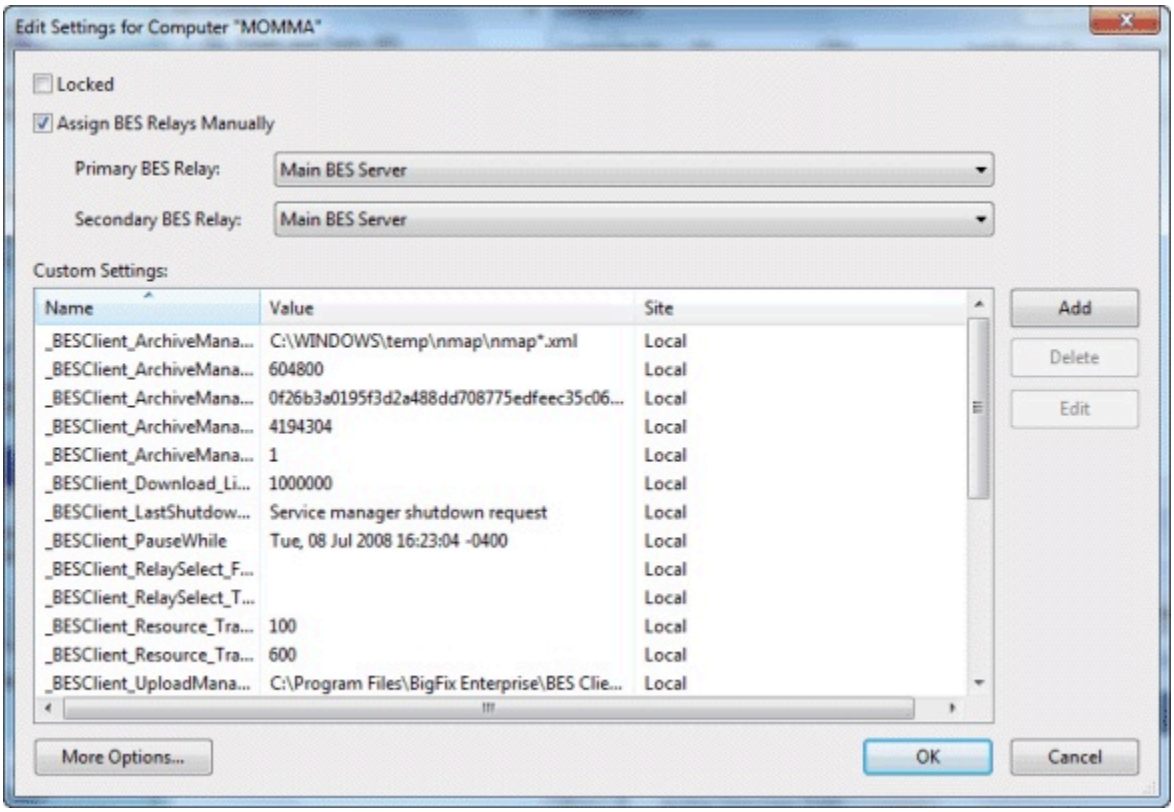
You can change the locked status of any BigFix Client in the network.

This lets you exclude specific computers or groups of computers from the effects of Fixlet actions. This could be useful, for example, if you want to exclude certain development computers from any changes or updates. It also provides a powerful technique for testing new Fixlet actions on a limited set of unlocked computers, while keeping the rest of the network locked down. Client computers can be locked forever (until explicitly unlocked) or for a defined period of time.

Changes are made to the locked status of a Client by sending an action. As a consequence, the Console operator must supply correct authentication to lock or unlock any computer. Even though a Client is locked, there is still a subset of actions that can be accepted by the client. These include clock changes and unlock actions as well as actions from the BES Support site.

To lock or unlock a computer, follow these steps:

1. Click the **Computers** icon in the Domain Panel navigation tree to open the List Panel of networked BigFix Client computers.
2. Select the computers that you want to lock.
3. Right-click and select **Edit Computer Settings** from the menu, or select **Edit Computer Settings** from the **Edit** menu. The Edit Settings dialog opens.



4. Click the checkbox to either lock or unlock the computer.

Although the Console does not provide an explicit interface for setting an expiration date on the lock, you can create a custom Action to do so. For more information, see the BigFix Developer site.

Removing Computers

This feature allows you to remove computers that are no longer reporting in, such as decommissioned computers.

When you remove a computer from the database, you do not need to uninstall or unsubscribe the client. If the client gets reactivated and reports back to the Console, the computer is included in the database with its old information intact. Until then, the client is not listed in the Console.

To remove a computer from the database, follow this procedure:

1. Click the **Computers** icon in the Domain Panel navigation tree to see a list of Clients in the List Panel.
2. Right-click a Computer in the list and select **Remove from Database** from the context menu (or select **Remove** from the **Edit** menu).
3. Confirm the removal in the subsequent dialog.

This computer is no longer visible in the Console unless reactivated by the BigFix Client itself.

Chapter 8. Computer Groups

Introducing Computer Groups

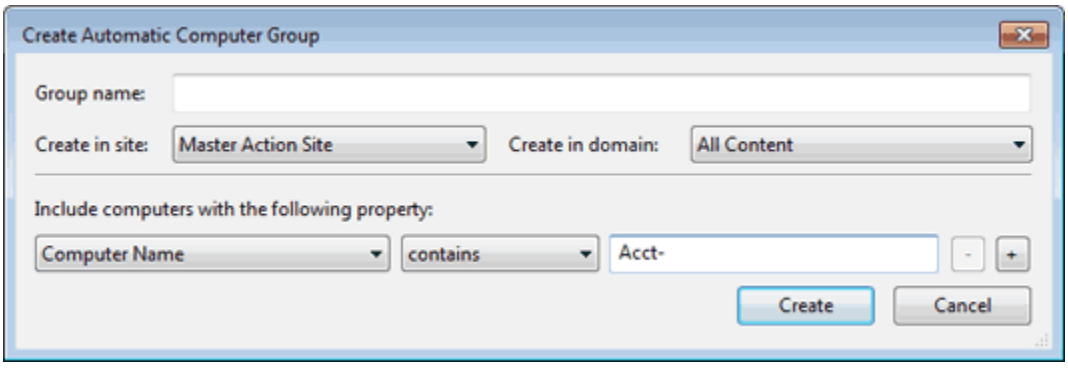
Grouping your BigFix Client computers can simplify the maintenance of large networks.

There are many ways to group computers, from simple manual selection to more flexible automatic grouping based on properties.

A simple grouping technique is to manually select members of a group from the listing in the Computers List Panel. For a quick look at a manual selection, click **View as Group** from the right-click context menu. This opens an **Ad-Hoc Computer Group** document in the Work Area where you can quickly analyze various properties of the group. Ad-hoc groups are temporary, but you can create persistent groups by choosing **Add to Manual Group** from the same context menu. These techniques are simple, but in a network with many thousands of computers, they can be tedious.

For more details, see Creating Manual Computer Groups (on page 95).

A more powerful technique is to define criteria for Automatic Grouping. From the **Tools** menu, select **Create New Automatic Computer Group**.



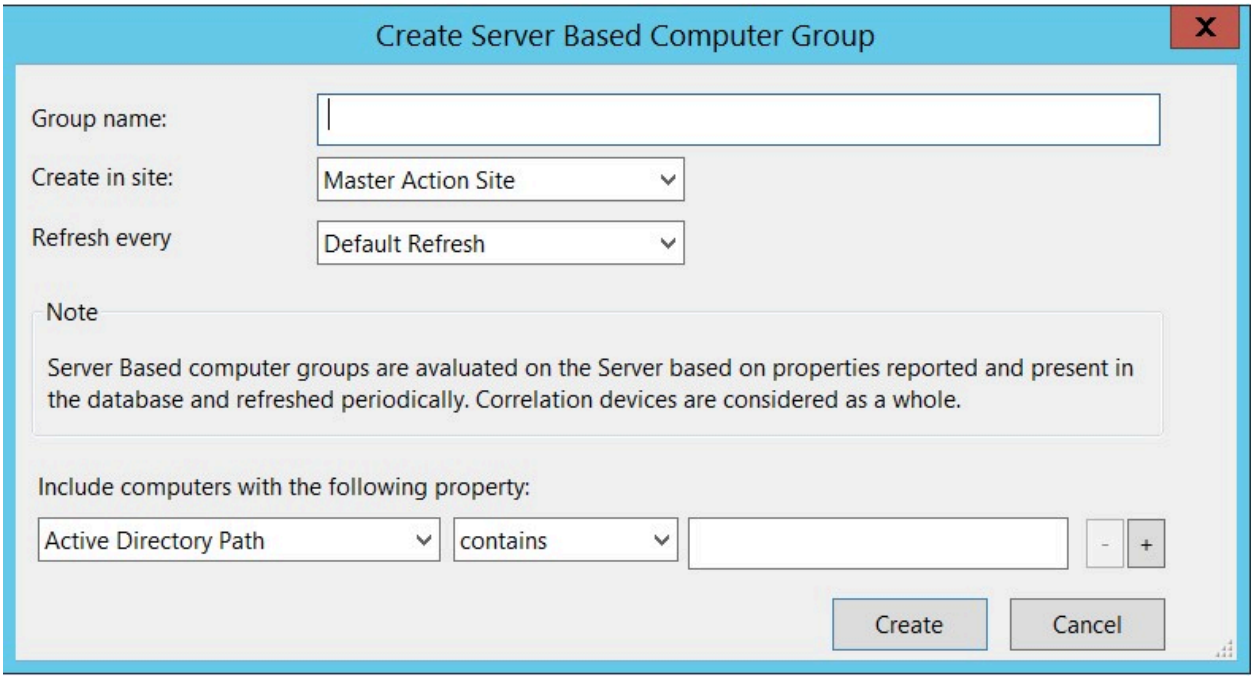
Here you can define membership in a group based on the values of specific computer properties. You could, for example, group computers by IP address ranges, operating systems, applications, and thousands of other criteria using Relevance expressions. Groups created this way have the benefit of automatic enrollment and expulsion, so that a computer

that is repurposed to a different task or department automatically switches groups without operator intervention.

For more details, see Creating Automatic Computer Groups (on page 95).

With the introduction of the Correlated devices, you might need to define a group based on properties coming from different representations of a correlated device or simply use the computer properties coming from one specific representation to include in the group the whole correlated device with **all** its representations.

For this purpose you can use a Server Based Computer group; Server Based Computer groups are evaluated by the BigFix Server based on the value of the properties reported by the devices and refreshed periodically.



For more details, see Creating Server Based Computer Groups (on page 97).

The following table summarizes the main differences among the 3 groups:

GROUP TYPE	WHEN TO USE IT	HOW DOES IT WORK	EXAM-PLES	COMMENTS

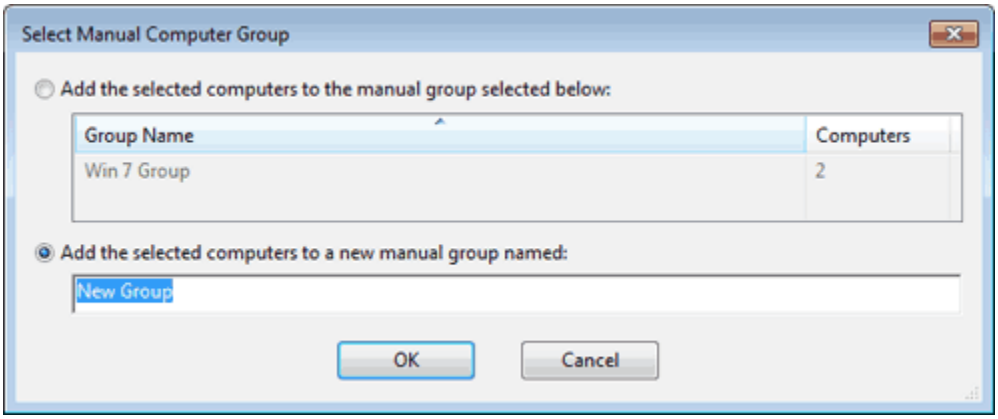
MANUAL	When the list of computers is static, you can add / remove "Computer Names" to / from a group	Membership evaluation is static based on the Computer Names	QA-GROUP: computer1, computer2, computer3…	In case of correlated devices, you should list all representations manually
AUTOMATIC	When you want to define criteria for group membership	Composing logical statements with properties. Membership is calculated at the agent through the client relevance	DESIGNERS-GROUP: department equals design AND OS equals macos	If your criteria include non-native properties, the BigFix agent representation might not belong to the group
SERVER BASED GROUP	When criteria involve (also) non-agent properties When you want to rely on the database information and avoid network traffic or save client evaluation cycle time	Membership is calculated with APIs to the server DB	EU-AWS-REGION-GROUP: cloud region contains eu-central	Devices with representations evaluating true the specified property will belong to the group along with all their correlated representations

Creating Manual Computer Groups

How to manually create a computer group.

Follow this procedure:

1. Click the **Computers** icon in the Domain Panel navigation tree and in the resulting List Panel, shift- and ctrl-click to select the computers you want to group together.
2. Right-click the computers you choose and select **Add to Manual Group** from the menu.
3. From the **Select Manual Computer Group** dialog, you can choose to add your selected computers to an existing group or create a new group for them.



   Select an existing group or name a new one and click **OK**.

This computer group is added under the Computer Group icon in the Domain Panel navigation tree and helps you to subdivide your networked computers down into more reasonably sized chunks.

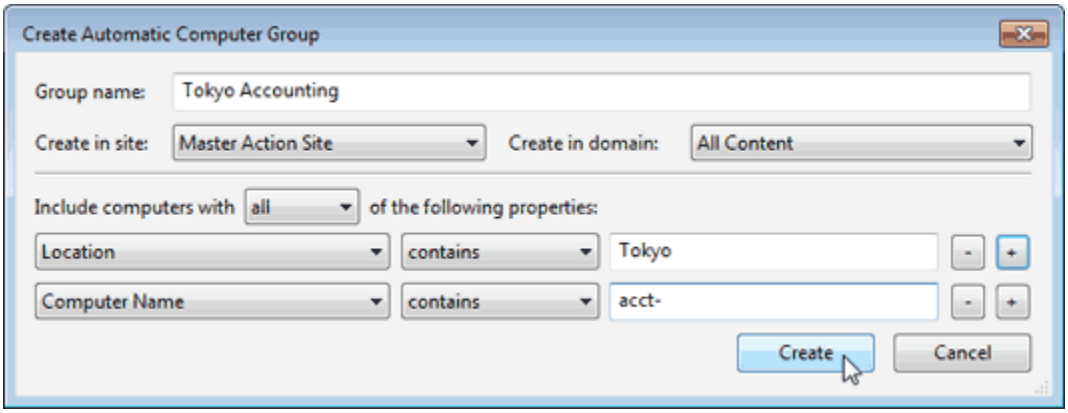
Groups use a global scope grouping mechanism that allows any operator with management rights on the device to edit membership. While manual groups are shared by operators with rights over the machine, dynamic groups have their own scope.

Creating Automatic Computer Groups

How to create a group that automatically enlists computers.

Follow this procedure:

1. Click **Tools > Create New Automatic Group**.
2. From the **Create New Automatic Computer Group** dialog, enter the name of your group and select the site and domain you want it to be located in.



3. Enter a property, a relation, and a value into the three boxes at the bottom of the dialog. For example, to create a group that automatically enlists Windows computers, select **OS contains Win**. Click the + button to add new properties that you can AND (include **all** properties) or OR (include **any** properties) together to identify group membership.
4. When you are finished, click **Create** to propagate the group settings.

You now have a new Automatic Computer Group that is listed under the Computer Groups icon in the Domain Panel navigation tree and can be used to subdivide your network into more workable chunks. Unlike Manual Groups, which are statically defined, Automatic Groups change their population depending on the evaluation of the group properties.

Note: The new Automatic Computer Group is visible in its own domain and in any other domain where exists at least one computer that belongs to it.

Creating Server Based Computer Groups

BigFix Platform 10.0.4 introduces the Server Based Computer Group, a new type of Group thought to deal better with correlated devices and all their representations. This section provides some more details on the scenario where this Group can be used and how it works.

Introduction

With versions earlier than BigFix Platform 10.0.4, BigFix makes available two type of Groups: Manual and Automatic Groups.

- Manual Groups: These Groups are static and Group membership is assigned manually.
- Automatic Groups: These are dynamic Groups where the membership can change dynamically, depending on the current values of the inclusion properties evaluated by the BigFix Agent.

The Server Based Computer Groups are different compared to the previous two types of Groups because:

- Membership is evaluated on the Server Side on a regular basis, with a refresh time that can be configured.
- Membership takes into consideration devices as a whole, therefore all the representations of a device will belong to the Group.

See Introducing Computer Groups (on page 92) for a summary table listing the differences and scenarios associated to the three types of Groups.

A Server Based Computer Group includes the correlated object and all its instances if the property clause, that is defined in the Group membership definition, is evaluated to true regardless from which instance the property belongs to. This ensures that the Group is aware of the correlation and treats the device as a single entity target for any regular BigFix operation.

For example, as a BigFix Operator you might want to create a Group that contains all the devices that have a specific AWS tag, and you decide to use this Group as a target for deploying a Patch Management Fixlet. This means that the membership will be calculated based on the retrieved, non-agent, property "Cloud tag" but you can use the BigFix Agent to patch all the AWS machines that an AWS Operator tagged for patching.

Clearly the Server Based Computer Group was created to handle correlated devices, nevertheless it can also be used when the correlation is not involved. In fact, you can use any property as a criterion for membership, not necessarily the reserved properties created on purpose to leverage data included in the non-agent representations (as explained below).

The real advantage in using this new type of Groups is that, for the Server Based Computer Group, the membership is periodically evaluated on the Server. The evaluation is based on the data stored in the database from the last report received from the Client.

As said, membership is dynamically re-evaluated at a fixed configurable interval. See the **Procedure** section for more details on how to set the refresh interval.

Given the above, there might be a slight discrepancy with the live agent status, anyway, using this approach you can save network traffic or agent evaluation cycles for large Groups of computers when you can rely on database information.

Along with the introduction of Server Based Computer Groups, BigFix Platform 10.0.4 makes available a new inspector whose details can be found here and a new property for Session relevance object whose details can be found here.

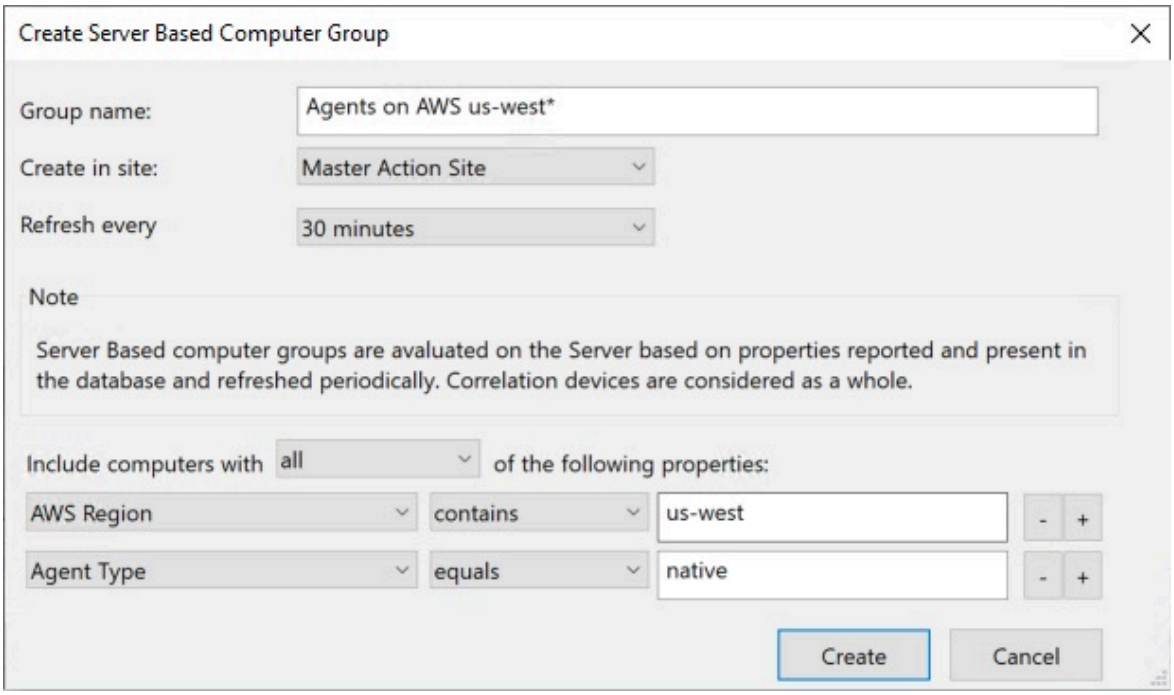
Server Based Computer Groups can be created in one of the two following ways:

- With the Console, see below for more details.
- With REST API, see here for more details.

Procedure

To create a Server Based Computer Group, follow this procedure:

1. Click **Tools > Create New Server Based Group**.
2. From the **Create Server Based Computer Group** dialog, enter the name of your Group.



3. Select the refresh interval for this specific Server Based Computer Group. The default value for this parameter is 15 minutes but you might want to change it depending on your specific use case. For example, in a Cloud scenario where you are using the AWS plugin configured with the default 2 hours refresh time, you can set your Server Based Group refresh interval to 1 hour instead of 15 minutes.
4. Select the site where the new Server Based Computer Group must be created, the default is the Master Action Site.
5. Enter a property, a relation, and a value into the three boxes at the bottom of the dialog.
6. Take into account that the **Create Server Based Computer Group** dialog lists only reserved properties. To add reserved properties, such as **AWS Region** used in this example, you can follow the steps described here *(on page 84)*.
7. Select the desired property, and the Group membership condition, for example **AWS Region contains us-west-**.
8. Click the **+** button to add a new Group membership property, for example **Agent Type equals native**.
9. Select the desired mode condition, in the example **Include computers with all of the following properties** is selected.

10. When you are finished, click **Create** to propagate the Group settings. You now have a new Server Based Computer Group that is listed under the Computer Groups icon in the navigation tree and can be used to subdivide your network into more workable chunks.

Refreshing the Server Based Computer Group

On an existing Server Based Computer Group, you can request an immediate refresh.

- Just right-click the Group and select **Refresh** or use the **Refresh** button in the Group details bar from the Console.
- Use the proper API in the available REST APIs for Computer Groups.

Procedure to create a Server Based Group via REST API

For more details, see Computer Group.

Settings

Use the `_BESRelay_ServerBasedGroup_RefreshMinutes` configuration setting to modify the default refresh value with which the BigFix Server refreshes the Server Based Computer Groups defined with the default value.

Use the `_BESRelay_ServerBasedGroup_IgnoreAgentsNotReportingAfterHours` configuration setting to specify the amount of hours after which the not reporting devices should not be taken into account by the BigFix Server for a membership in a Server Based Computer Group.

For more details on these settings, see the Miscellaneous section of the List of settings and detailed descriptions page.

Caveats

- Only global properties can be used in Server Based Computer Groups.
- Only the four "contains", "does not contain", "equals" and "does not equal" operators are available to define a rule.

- The search text is always case insensitive (Unicode is of course supported so 'è' matches 'È') for consistency with Automatic Groups.
- Only devices subscribed to the site where the Group is defined will be members of the Group.
- Unlike an Automatic Group, a Server Based Computer Group always uses the last version of the global property. So, when a property is deleted, the Group will behave as if the property had no available results.

Known Limitations

- In a DSA environment only the primary BES Root Server will fully manage the Server Based Computer Groups, that is, send actions to clients to update the Group membership and expose all the functionalities to create, edit and refresh the Groups.
- Non-primary BES Root Server(s) will run in restricted mode. So:
    - It is not possible to create, edit, remove or refresh Server Based Computer Groups.
    - The BigFix Server will not send subscription actions to clients to update the membership.
    - The membership table in the Database is not filled by the DSA replication process but by the local BigFix Server.
- The Group name must contain alphanumeric characters only.

BigFix New Server Based Computer Groups and BigFix Applications

The Inventory and Compliance Analytics applications must be upgraded to take advantage of the Server Based Computer Groups feature.

- BigFix Inventory will support BigFix Server Based Computer Groups starting from 10.0.5 release (July, 2021).
- For Compliance Analytics, a new version that will support the new BigFix Server Based Computer Groups will be delivered in the near future.

Application versions without official support for the new Server Based Computer Groups will report them as empty.

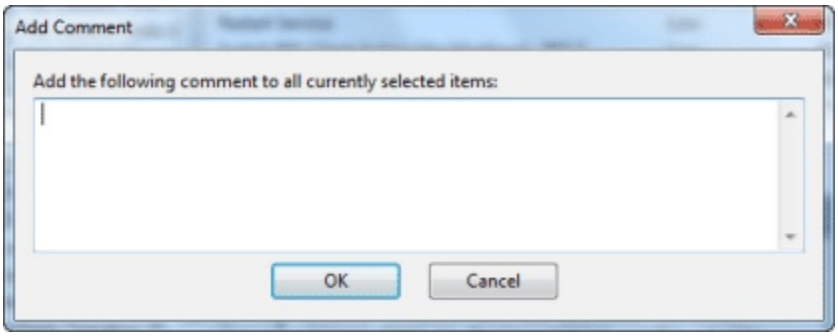
You will need to follow application specific instructions on how to upgrade and synchronize Computer Group definitions when support is announced.

Commenting on Computer Groups

You can attach a comment to a Computer Group, which other operators can read.

Perform these steps:

1. Open the **Computer Groups** icon in the Domain Panel navigation tree and choose one of the categories under the icon to narrow down your list.
2. Select a computer group from the resulting List Panel on the right by clicking it.
3. From the document panel below, select the **Description** tab.
4. Scroll to the bottom of the page, type your comment into the text box and click the **Add Comment** Button.



Your comment is name- and time-stamped for other operators to view it. As well as Computer Groups, you can attach comments to Fixlets, Tasks, Actions, and Analyses.

Removing Computer Groups

How to remove a computer from the BigFix administration.

Follow this procedure:

1. Click the **Computer Groups** icon in the Domain Panel navigation tree.
2. Right-click a Computer Group from the resultant List Panel and select **Remove** from the context menu (or select **Remove Computer Group** from the **Edit** menu).

This computer group is deleted from the list.

Chapter 9. Analyses

Introducing Analyses

An Analysis is a collection of property expressions that allow an Operator to view and summarize various properties of BigFix Client computers across a network.

The collection is grouped together to be labeled, edited, and activated against groups of computers to allow the results to be displayed together. For example, suppose you have a custom application deployed in your network, and you want to create an analysis to give you important information about the state of your machines relative to that custom application. You might build an analysis with several properties, such as:

- Is the custom application installed?
- What is the version of the custom application?
- Is the application currently running?

With an analysis composed of these properties, operators can activate the analysis against groups of machines to get visibility into the state of the network as it pertains to the custom application.

There are several pre-made Analyses that examine important aspects of your networked computers, including their hardware, applications, and Server/Relay/Client relationships.

Studying these default Analyses can be instructive when you want to make your own or customize existing ones. Custom Analyses can help you monitor aspects of your network that are vital to your company's operation.

The Retrieved Properties that underlie each Analysis are created using Relevance expressions. For example, to make sure you have fully deployed the most recent BigFix Client software, you might use an expression such as **version of client**. This simple expression is evaluated on every computer where the analysis is targeted, allowing you to see explicitly which version of the BigFix Client is running on each computer, or to view a summary of how many machines are running each version.

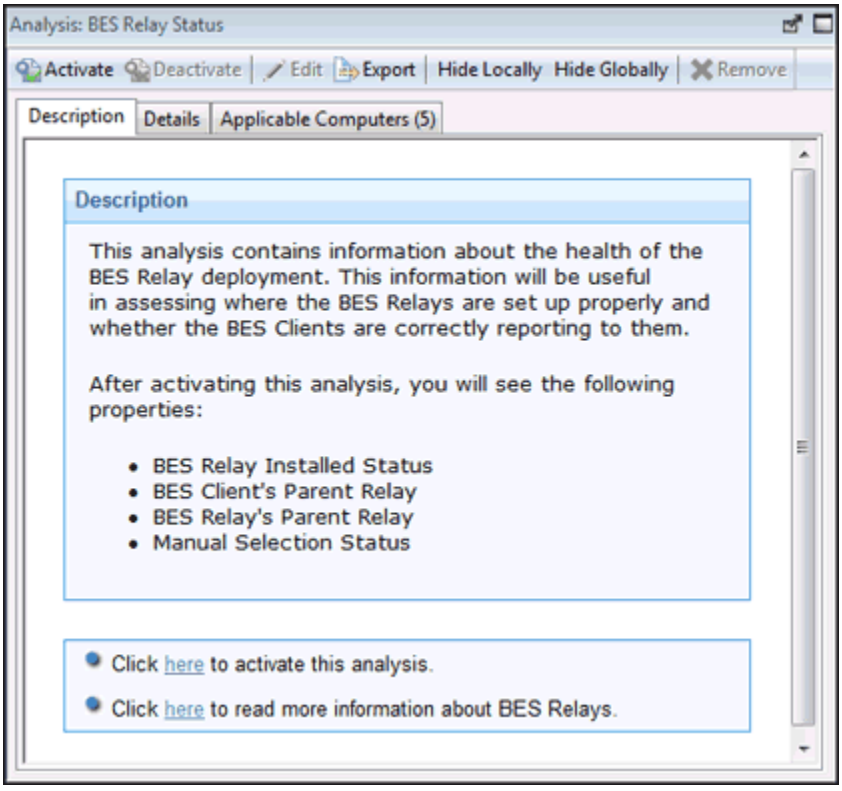
Analyses are targeted with yet another Relevance statement, which might be as simple as TRUE, which would include all connected Clients. Generally, you want to narrow the scope with a Relevance statement such as **name of operating system as lowercase starts with "win"**, which would limit the Analysis to Windows computers only.

Viewing Analyses

How to display an Analysis.

1. Click the Analyses icon in the Domain Panel navigation tree.
2. Click an entry in the resulting **Analysis** List Panel.

The body of the Analysis is shown in the Work Area below the list (click the **Description** tab if not already selected).



The Analysis display region has several tabs:

- **Description:** This is an HTML page providing a description of the analysis.
- **Details:** This panel provides a property-by-property listing of the chosen analysis, as well as the Relevance statement that is being used to target the chosen computers. At the bottom is a text box for entering a comment that to be attached to this analysis.
- **Results:** This dialog lists the actual results of the analysis, which can be filtered and sorted by the pre-assigned properties (this tab is only available if the Analysis is activated).
- **Applicable Computers:** This is a filter/list of all the computers where the selected analysis is applicable. You can filter the list by selecting items from the folders on the left, and sort the list by clicking the column headers.

Monitoring Analyses

When an analysis is activated, BigFix adds it to the list displayed by the **Analyses** icon in the Domain Panel navigation tree.

The Analysis List Panel contains entries that can be sorted by the following column headers:

- **Name:** The name assigned to the Analysis by the author.
- **Status:** The activation state of the Analysis.
- **Site:** The name of the site that is generating the relevant Analysis.
- **Applicable Computer Count:** The number of BigFix Clients in the network currently being analyzed.
- **Activated By:** The name of the Console operator who activated this analysis.
- **Time Activated:** The date and time the analysis was activated.

As with all the icons in the Domain Panel navigation tree, you can filter this list by opening the Analyses icon and selecting any of the icons beneath it. Each icon you click narrows down the list of Analyses on the right. Then, in the listing area itself, you can sort the Analyses by clicking a column heading.

For example, you might filter the list by opening the **Activated Analyses** sub-icon, then opening the **Activated By** folder and selecting a specific Operator to see the subset of analyses that have been activated by that Operator.

Commenting on Analyses

You can attach a comment to an Analysis that other operators can read.

Perform these steps:

1. Select the **Analyses** icon in the Domain Panel navigation tree and choose one of the subcategories underneath it to narrow down your list.
2. Select an Analysis from the resultant List Panel on the right by clicking it.
3. In the Work Area below, select the **Details** tab. Scroll to the bottom of this dialog to the comments text box.
4. Type your comment into the text box and click the **Add Comment** button.

Your comment is name- and time-stamped for other operators to view it. As well as Analyses, you can attach comments to Fixlets, Tasks, Actions, and Computers.

Creating Analyses

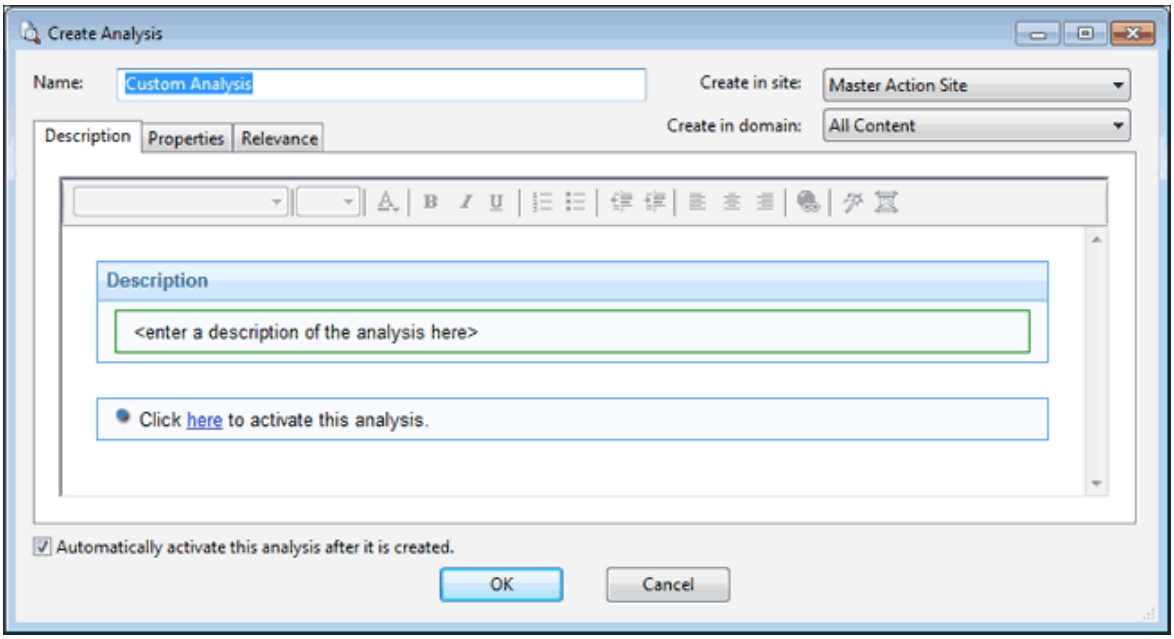
Analyses allow you to create and track specified properties of your managed BigFix Clients.

These properties can be extracted from any subset of your network, which simplifies the process of managing inventory, licensing, security, and policies. Using Web Reports, you can view a history of each analysis.

Analyses are also the only way for Non-Master Operators to create retrieved properties, because they do not have access to the **Manage Properties Dialog**.

To create your own custom Analysis, follow these steps:

1. Select **Tools > Create New Analysis**
2. This opens the **Create Analysis** dialog with a text box for entering the name of your new Analysis.



Because you can use the name for sorting and filtering, create a consistent naming convention to make your Analyses more accessible. Enter the name and then select the host site and domain for the Analysis from the drop-down menus at the right. The dialog contains three tabs. Click through each tab to define your Analysis:

- **Description:** In this dialog, you can enter the text that describes your Analysis. You can choose from the text editing tools at the top of the text box to create your custom content.
- **Properties:** Add the retrieved properties that form the core of your Analysis by clicking the **Add Property** button, then providing a name and a Relevance expression that is evaluated to create the returned property value.
- **Relevance:** Enter another Relevance expression that determines which computers are selected for this Analysis.

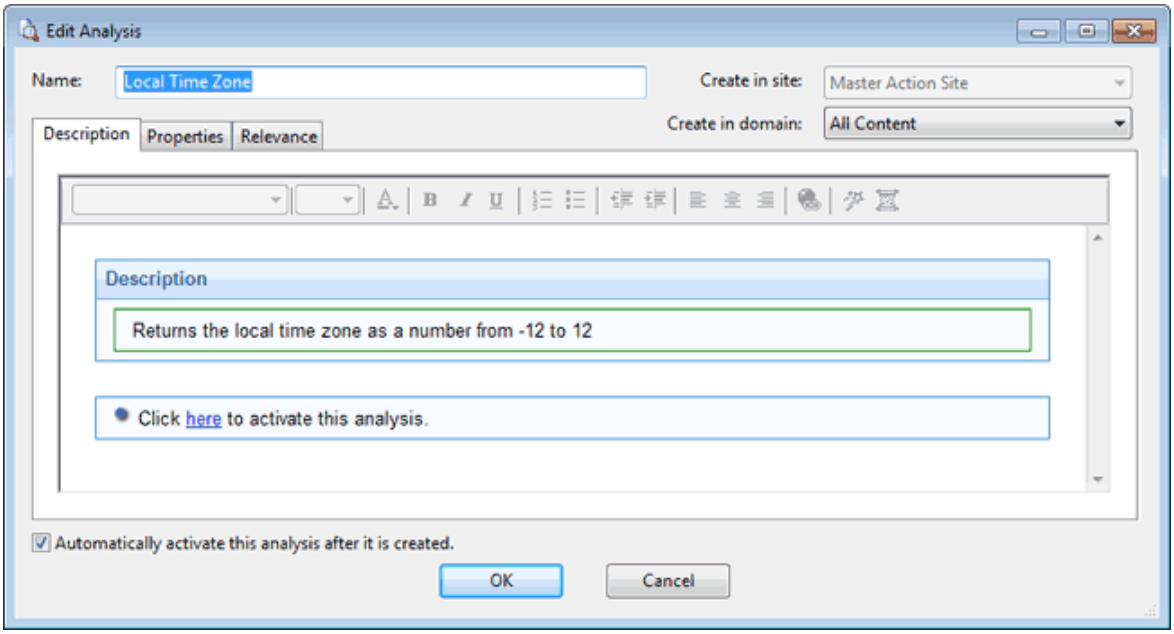
3. Check the box at the bottom of the dialog if you want to automatically activate the Analysis. When you are satisfied with your Analysis definitions, click **OK**.
4. Your Analysis must be propagated, so you are prompted for your private key password. When you enter it and click **OK**, your Analysis is sent to all the Clients, which evaluate it for relevance and report back their status. You can now monitor specific properties of your networked Clients from the Console.

Editing Analyses

How to edit an Analysis.

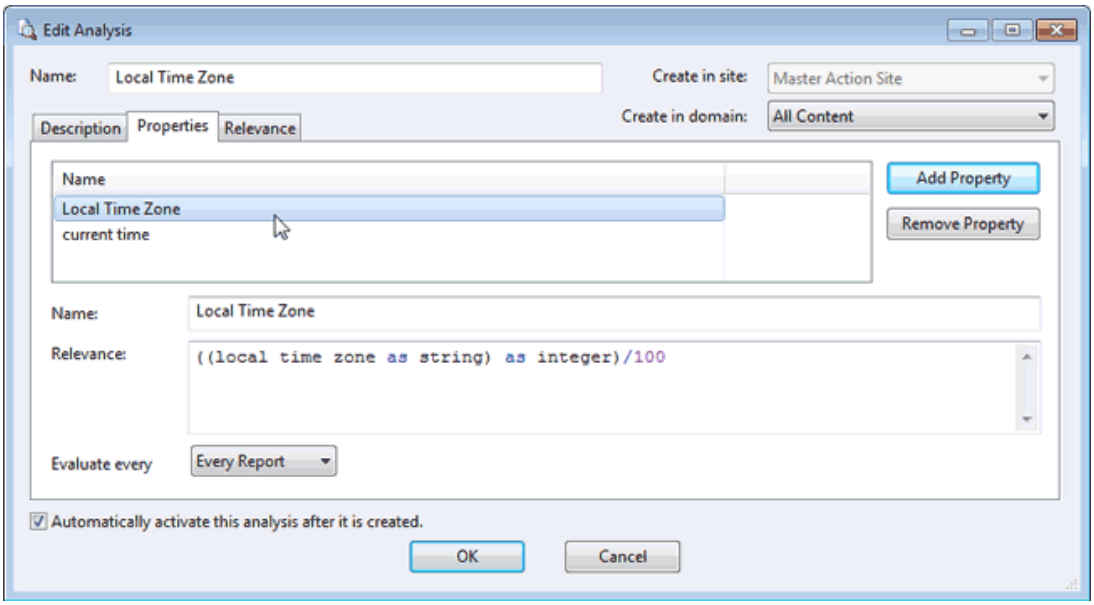
Follow these steps:

1. Open the **Analyses** icon in the Domain Panel navigation tree, and select **My Analyses** as a filter. In the resultant List Panel, select the Analysis you want to edit. Note that not all Analyses are editable.
2. Select **Edit > Edit Custom Analysis** (or right-click the Analysis and select **Edit** from the pop-up menu).
3. This opens the **Edit Analysis** dialog.



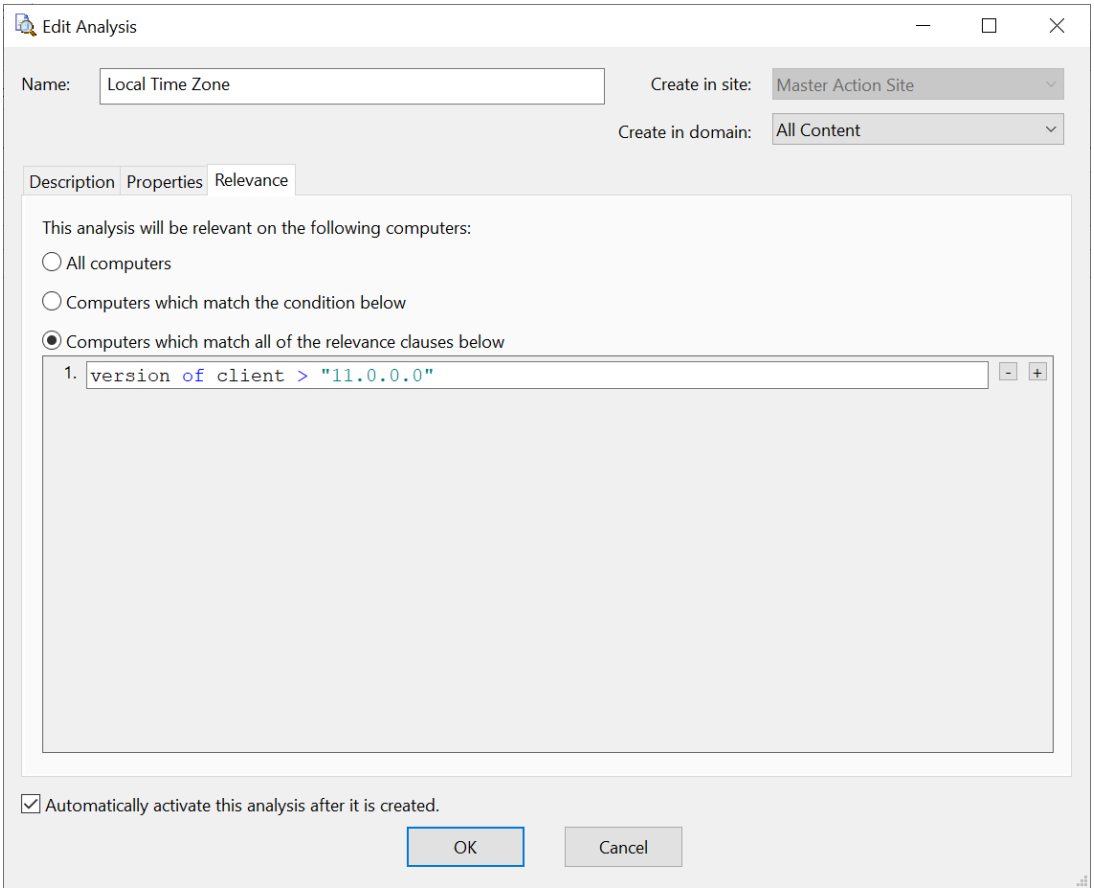
Edit the **Name** of the Analysis and then select the hosting site and domain from the pull-down menus. Below this, there are three tabs. Click through each tab to customize your Analysis:

- **Description:** Edit the description of the Analysis, explaining the properties that are being analyzed.
- **Properties:** This is the core part of the Analysis.



Click **Add Property** or choose an existing property and the relevance box becomes editable. If you are adding a new property, enter its name and relevance to define it. Otherwise, edit the existing text. The Relevance clause is evaluated to provide the retrieved property value. You can add more properties, or click the **Remove Property** button to delete the highlighted one.

- **Relevance:** Here is where you define a Relevance statement to target specific computers for your Analysis.



Select **All computers** or enter an expression that targets a subset of your networked Clients. Otherwise, you can set specific conditions or relevance clauses to limit the application of the Analysis.

4. When you are satisfied with your edits, click **OK**.
5. Your Analysis must be propagated, so you are prompted for your private key password. When you enter it and click **OK**, your edited Analysis is sent to all the Clients.

Hiding Analyses

You can hide an Analysis.

Use the following procedure:

1. From any Analysis List Panel, select the Analysis you want to hide.
2. Right-click the Analysis and select either **Globally Hide Analysis** or **Locally Hide Analysis** from the context menu (or select these same choices from the **Edit** menu).

The selected Analysis is no longer displayed in the Analysis list. If you chose to hide the Analysis locally, it is still visible to other Console users. If you are a master operator, you can hide an Analysis globally, to have it also hidden from all non-master users.

Items that are hidden are still available and you can restore or unhide them at any time. Here is how:

1. Click the **Show Hidden Content** icon in the Console toolbar.
2. Right-click the Analysis you want to restore and select the appropriate action from the pop-up menu. You can unhide or switch the hiding scope between global and local.

Chapter 10. Baselines

Introducing Baselines

Baselines are collections of Fixlet messages and Tasks.

They provide a powerful way to deploy a group of Actions across an entire network with a single command.

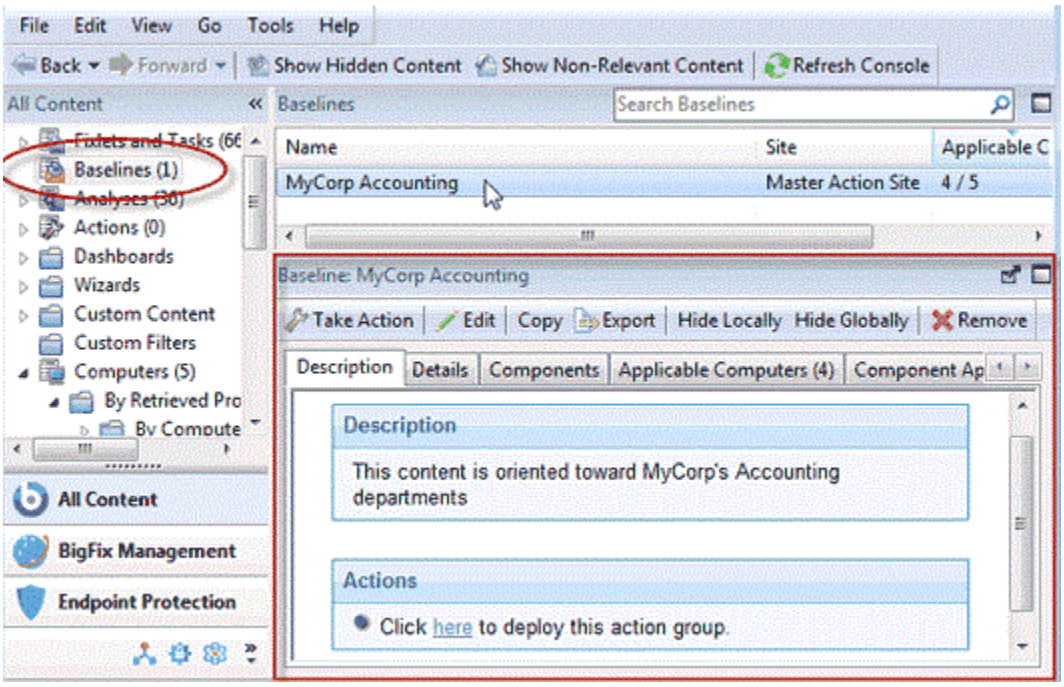
Baselines provide a way to maintain a common operating environment, making sure that all users in any given domain have the same software, patches, and drivers. Baselines are easy to set up, by selecting the Fixlet messages, Tasks, and other Baselines that you want to be a part of the group. To limit the scope of a Baseline, a Relevance expression can be used to target any subset of your network, using IP addresses, computer names, operating systems, and many other qualifiers.

For example, you might make a Baseline named "All critical hotfixes," and populate it with all the current critical hotfixes available in the Fixlet list. Or you might create one named "Finance department baseline," to keep that particular group of computers updated with the latest financial programs, financial tables, updates, and patches.

Viewing Baselines

Baselines allow you to group Fixlet messages and Tasks into a group for simple, one-click deployment.

To display an existing Baseline, click the Baselines icon in the Domain Panel navigation tree. From the resulting List Panel, click an item. The body of the is shown in the Work Area below.



The Baseline display region has several tabs:

- **Description:** This is typically an HTML page providing a descriptive explanation of the problem and an action to fix it.
- **Details:** This tab lists the Baseline Properties, a section detailing the code behind the Relevance expressions and the Baseline actions, along with other Baseline properties. Scroll to the bottom to enter a comment as a note for yourself or other Console operators.
- **Components:** This tab lists the components, namely the Fixlet messages, Tasks, and other Baselines that are grouped into this Baseline. Because Baselines make a copy of the components, it is possible for one of these copies to get out of sync with the underlying Fixlet or Task that spawned it. If this happens, a message is displayed saying that the source differs from the copy and allowing you to synchronize with the current source.
- **Applicable Computers:** This is a filter/list of all the computers targeted by the selected Baseline. You can filter the list by selecting items from the folders on the left, and sort the list by clicking the column headers.

- **Component Applicability:** This is a filter/list of the various components of the Baseline. It displays the number of computers where the Baseline is currently applicable and, after a slash, the number where it is not. Double-click an item in the list to display it for inspection.
- **Action History:** This is a filter/list of any Actions that have been deployed from this Baseline. If the Baseline is new, there are no Actions in the list. Like the other filter/lists in the Console, you can filter the actions using the left panel, and sort them by clicking the column headers.

Monitoring Baselines

When Baselines become relevant somewhere in your network, the BigFix Console adds them to the list of Baselines to be displayed under the **Baselines** icon in the Domain Panel navigation tree.

You can filter this list by opening the icon and selecting one of the subsets. In the resulting List Panel on the right, you can sort the Baselines by clicking one of the column headings, which might include the following fields:

- **Name:** The name assigned to the Baseline by the author.
- **ID:** A numerical ID assigned to the Baseline by the author.
- **Site:** The name of the site that is generating the relevant Baseline.
- **Applicable Computer Count:** The number of BigFix Clients in the network currently targeted by the Baseline.
- **Open Action Count:** The number of actions open for the given Baseline.

If you do not see one of the columns listed above, right-click in the Baseline header and select it from the pop-up menu.



Note: If the relevance of a component of a baseline changes, the baseline goes out of synchronization and the message "Source Fixlet differs" is displayed close to the component in the BigFix Console. When it happens, the **Applicable Computer Count** tab of the baseline is overwritten to 0/0 (<baseline relevant computers number> unknown).

Commenting on Baselines

You can attach a comment to a Baseline, which other operators can read.

Perform these steps:

1. Select the **Baselines** icon in the Domain Panel navigation tree and open it if you want to choose one of the Baseline subcategories to narrow down your list.
2. Select a Baseline from the List Panel on the right by clicking it.
3. From the document panel below, select the **Details** tab and scroll to the bottom of the page.
4. Type your comment into the text box and click the **Add Comment** Button.

Your comment is name- and time-stamped for other operators to view it. As well as Baselines, you can attach comments to Fixlets, Actions, Computers, and Analyses.

Creating or Customizing Baselines

Baselines allow you to gather multiple Fixlets and Tasks into groups that can be applied immediately to any set of target computers.

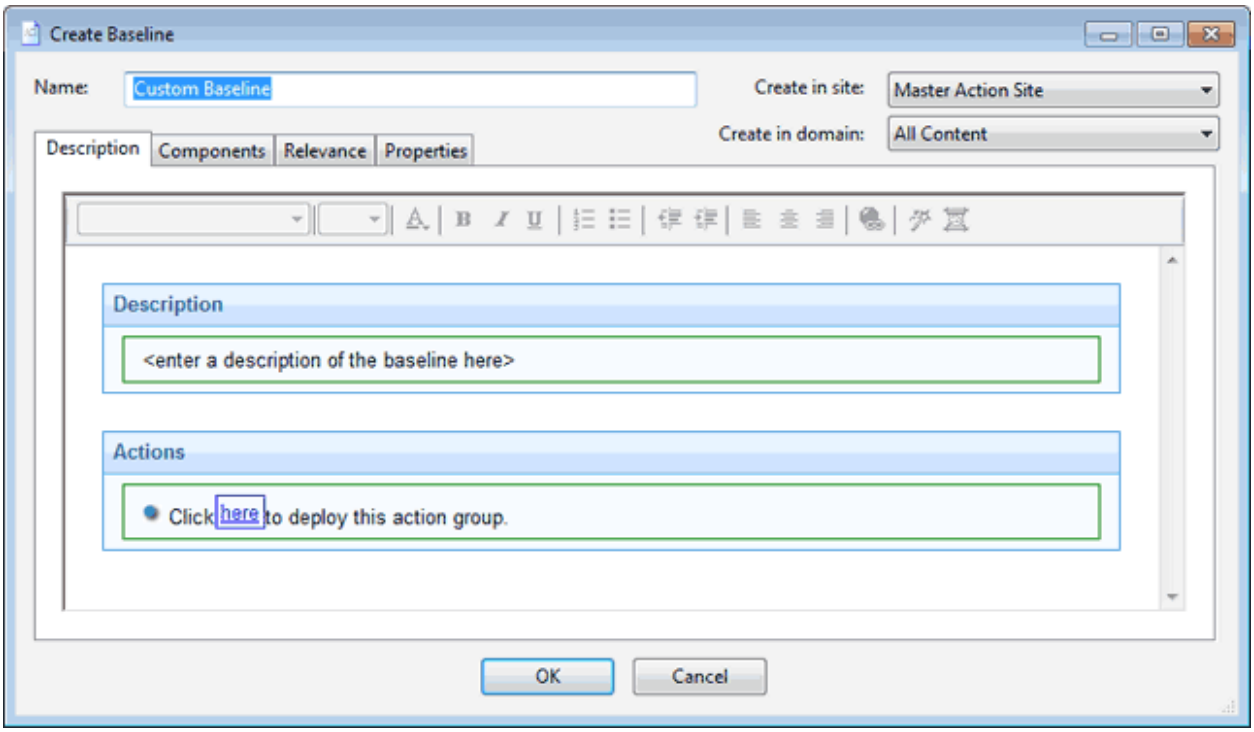
The name Baseline was chosen to suggest a minimal set of conditions that could be applied across your network to ensure compliance with corporate guidelines. To create your own custom Baseline from scratch, follow these steps:

- In a Fixlet or Task list, highlight one or more items and select **Add To New Baseline** from the context menu. You can also select **Create New Baseline** from the **Tools** menu.

To clone off a Baseline and customize it, first select the Baseline in any list, then:

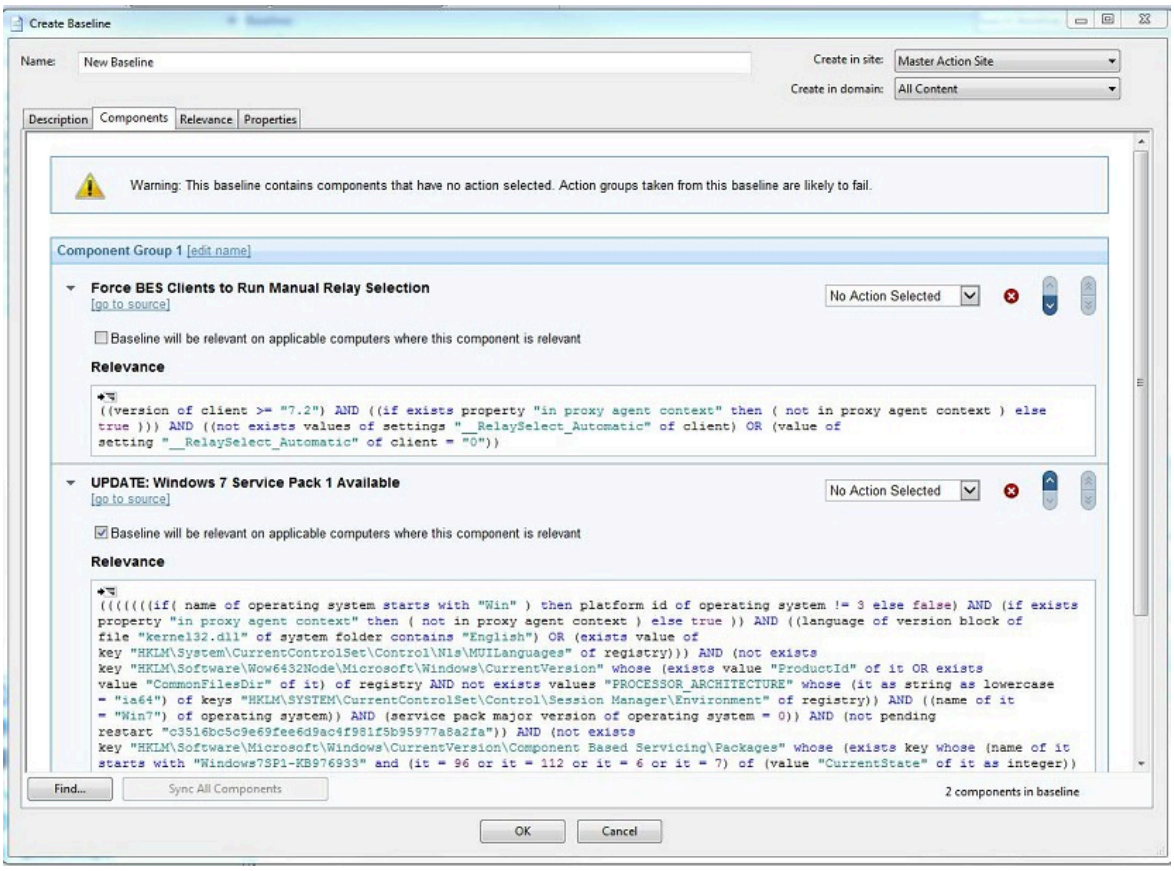
- Select **Edit > Create Custom Baseline Copy** (or right-click the Baseline and select **Create Custom Copy** from the pop-up menu).

Either way, this opens a dialog with four tabs.



At the top of the dialog, you can specify the name of your custom Baseline as well as the Site and Domain that will host the Baseline. Click through each of the tabs below to define your Baseline:

- **Description:** This dialog lets you describe your custom Baseline as an HTML page. Edit the text, using the text toolbar at the top of the window.
- **Components:** You can add or customize the components of a Baseline. To add a new component, click the **add components to group** link. From the resulting dialog, you can select new Fixlet messages, Tasks, and other Baselines to add to the existing Baseline group.



In the example above, the two added components have been expanded to show their relevance. The check box **Baseline will be relevant on applicable computers where this component is relevant** is used to tell whether the related component (Task or Fixlet) makes the baseline relevant on those computers where that component is relevant. The default value is unchecked for Tasks and checked for Fixlets.

Note: If the associated Action Group is relevant and is scheduled to start at a later time, it starts even if it becomes no-relevant afterwards.

- **Relevance:** Enter your relevance statement here, or modify the existing relevance statement. This allows you to further constrain your Baseline to specific computers. By default, this Relevance statement is TRUE, which leaves the job of targeting to the individual Fixlets and Tasks that make up the Baseline. For more information about the relevance language, see the Inspector Libraries.

- **Properties:** Customize the properties of your Baseline, or accept the original properties. Because you have customized the Baseline, update the source fields to reflect the new authorship. There are fields here that specify the category, download size, source information, and the CVE/SANS ID codes.

When you are satisfied with your Baseline modifications, click **OK**. Because your customized Baseline must be propagated, you are prompted for your private key password. When you enter it and click OK, your Baseline is sent to all networked Clients, which evaluate it for relevance and report back their status. You can now follow the deployment of your own custom Baselines from the Console.

Hiding Baselines

You can hide a Baseline.

Use the following procedure:

1. From any Baseline List Panel, select the Baseline you want to hide.
2. Right-click the Baseline and select **Globally** or **Locally Hide Baseline** from the pop-up menu (or from the **Edit** menu).

The selected Baselines are no longer displayed in the Baseline list. If you chose to hide the Baseline locally, it is still visible to other Console users. If you are a Master Operator, you can hide a Baseline globally, to hide it also from all non-master users.

Items that are hidden are still available and you can restore or unhide them at any time. Here is how:

1. Click the Show Hidden Content button in the Console toolbar.
2. Click the **Baselines** icon in the Domain Panel navigation tree, which now shows all the hidden content.
3. From the List Panel, choose a Baseline and choose **Edit > Hiding > Locally/Globally Unhide** or right-click and choose the same option from the context menu. You can also open the hidden Baseline and click the Unhide button in the Work Area below.

Generally it is not necessary to hide Baselines, because you can simply ignore them. The main reason for hiding a Baseline is if you think that the message is not relevant to your network and you want to avoid viewing the Baseline every time you launch the Console.

Chapter 11. Relays and Servers

Understanding Relays

Relays are optional network components that can significantly improve the performance of your installation.

Downloads and patches, which are often large files, represent by far the greatest fraction of the program bandwidth. Relays are designed to take over the bulk of the download burden from the BigFix Server. Rather than downloading patches directly from a Server, Clients can instead be instructed to download from designated Relays, significantly reducing both server load and client/server network traffic. Relays help in the upstream direction as well, compiling and compressing data received from the Clients before passing it on to the Server. Any Windows 200x, Windows 7, Vista, or XP-based client can serve as a Relay. Several other operating systems can support relays as well, such as Solaris, and some variants of Linux. See the support site for the latest information.

A Relay simultaneously resolves two bottlenecks:

- **Relieves the Load on BigFix Servers.** This Server has many duties, among them the difficult job of distributing patches and other files. A Relay can be set up to ease this burden, so that the Server does not need to distribute the same files to every Client. Instead, the file is sent once to the Relay, which in turn distributes it to several Clients. The overhead on the Server is reduced, on average, by the ratio of relays to clients.
- **Reduces Congestion on Low-Bandwidth Connections.** If you have a BigFix Server communicating with a dozen computers in a remote office over a slow VPN, designate one of those computers as a Relay. Then, instead of sending patches over the VPN to every BigFix Client independently, the BigFix Server only sends a single copy to the Relay. That Relay, in turn, distributes the file to the other computers in the remote

office over its own fast LAN. This effectively removes the VPN bottleneck for remote groups on your network.

Note: Relays also work well to reduce total network usage when used on subnets connected through switches on your LAN. Ask HCL Software Support for more details.

Assigning Relays is simple, and Clients can be configured to automatically discover and link to them. The program enables the Clients to discover their nearest relays, or they can be configured manually.

Relay requirements

A Relay takes over most of the download tasks of the BigFix Server.

If several Clients simultaneously request files from a Relay, a significant amount of the computer's resources might be used to serve those files. Other than that, the duties of the Relay are not too demanding. The requirements for a Relay computer vary widely depending on three main factors:

- The number of connected Clients that are downloading files.
- The size of each download.
- The period of time allotted for the downloads.

The Relay system requirements are similar to those for a workgroup file server. A computer with 1 GHZ CPU, 256 MB RAM, and 5 GB of free space on the hard drive can act as a Relay for as many as one thousand computers, if the Console operator distributes the file downloads over an appropriate length of time. Here are some further requirements and recommendations:

- The Relay can only be installed on computers running under Windows 200x, 7, Vista, or XP as well as Red Hat Enterprise Linux 4/5/6/7, and Solaris 10.
- The Relay can be installed on an ordinary workstation, but if several Clients simultaneously download files, it might slow the computer down.
- Workgroup file servers and other server-quality computers that are always turned on are good candidates for installing a Relay.

Setting up relays

To set up a Relay, you must designate a client computer to take over some server duties.

When a Relay has been set up, computers in the network can automatically find them and connect to them (or you can manually assign BigFix Clients to point to specified relays).

This significantly reduces the client/server communication necessary for patch application and management. Clients start to download from these designated relays, minimizing the load on thin connections to the BigFix Server. The Clients also upload their status information to the Relay, which compiles and compresses it before passing it on up to the server.

To configure a client computer as a Relay, follow these steps:

1. Open **Fixlets and Tasks** from the Domain Panel and select **Tasks Only**.
2. Double-click the task labeled **Install BigFix Relay**. A task window opens below. Make sure the Description tab is selected. There are three choices for where to place the Relay installation folder:
    - Install to a given path. This option allows you to specify a path for the Relay installation folder.
    - Install on the drive with most free space. This action lets you automatically choose the most capacious drive for the installation folder.
    - Install to the default location. This is the recommend action. It automatically finds the optimal location for the installation folder.
3. Configure the internet-facing relays or internal relays (where access protection is desired) in your BigFix deployment as authenticating relays. For instructions on how to configure relays as authenticating, see Authenticating relays.

After the relays have been created, Clients can be made to automatically discover and connect to them, always seeking the Relay that is the fewest hops away.

If you need to manually configure your Clients, you must notify each computer to use a specific relay to point to, as described in Using Relays (on page 124).

Using Relays

When you have set up a Relay you must direct BigFix Clients on your network to gather from that relay, instead of from your Server.

BigFix can automatically assign your relays for you. This is not without risks (see the Administrator's Guide or visit the support site for more information), but it can be a good idea for two reasons:

- Clients can determine which relays are the fewest number of hops away, so your topology is optimized.
- Your network configuration is constantly shifting as laptops dock and undock, as computers start up or shut down, or as new hardware is added or removed. Clients can dynamically assess your configuration to maintain the most efficient connections as your network changes.

Note: On relay systems, do not assign as primary relay the relay that is local to the endpoint.

Automatic Relays

How to ensure that your BigFix Client computers are automatically signing up to the nearest relays.

Perform these steps:

1. Click the **Computers** icon in the Domain Panel to display a filter/list of BigFix Client computers.
2. Select the set of computers that you want to automatically connect to the optimal Relay.
3. Right-click the highlighted computers and select **Edit Computer Settings** from the pop-up menu.
4. Check the box labeled **Relay Selection Method**.
5. Select the button labeled **Automatically Locate Best Relay**.
6. Click the **OK** button.

Manually Assigning Multiple Clients

You can select all the computers (or any given subset) of the local network to gather from a specified relay.

The procedure is different for setting a single computer or multiple computers. Here is how to set multiple computers to point to a relay:

1. Click the **Computers** icon in the Domain Panel to display a list of BigFix Client computers.
2. Select the set of computers that you want to connect to the BigFix Relay. You can use the filter panel on the left to narrow down the computer list.
3. Right-click the highlighted computers and select **Edit Computer Settings** from the pop-up menu.
4. Check the box labeled **Primary Relay**.
5. Select the name of a Relay from the pull-down menu.
6. Click the **OK** button.

Manually Assigning Single Clients

how to set a single computer to point to a relay.

Perform these steps:

1. Click the **Computers** icon in the Domain Panel to display a filter/list of BigFix Client computers.
2. Right-click the single computer that you want to connect to the BigFix Relay.
3. Select **Edit Computer Settings** from the pop-up menu.
4. Check the box labeled **Assign Relays Manually**.
5. From the **Primary Relay** pull-down menu, select a Relay.
6. Click the **OK** button.

Adjusting the BigFix Server and Relays

To get the best performance from BigFix, you might need to adjust the server and the relays.

There are two important ways of adjusting the flow of data throughout your network, throttling and caching:

Throttling Outgoing Download Traffic

Throttling allows you to set the maximum data rate for the BigFix Server. Here is how to change the data rate:

1. Open **Fixlets and Tasks** icon in the Domain Panel navigation tree and then click **Tasks Only**.
2. In the find window above the Tasks List, type "throttle" to search for the appropriate Task.
3. From the resulting list, click the task labeled **Server Setting: Throttle Outgoing Download Traffic**. A task window opens below. Make sure the **Description** tab is selected. There are three choices:

- **Set the limit on total outgoing download traffic.** This choice allows you to directly set the maximum number of kilobytes per second you want to grant to the server.
- **Disable the setting.** This option lets you open the download traffic on the BigFix Server to full throttle.
- **Get more information.** This option opens a browser window with more detailed information about bandwidth throttling.

4. If you select a throttle limit, then from the subsequent **Take Action** dialog you can select a set of computers to throttle. Click **OK** to propagate the task.

Download Cache Size

BigFix Servers and Relays maintain a cache of the downloads most recently requested by Clients, helping to minimize bandwidth requirements.

1. Open **Fixlets and Tasks** icon in the Domain Panel navigation tree and then click **Tasks Only**.
2. In the find window above the Tasks List, type "cache" to search for the appropriate Task.
3. From the resulting list, click the task labeled **Relay / Server Setting: Download Cache Size**. A task window opens below. Make sure the **Description** tab is selected. Select the link to change the download cache size on the listed computers. This list might include Relays as well as the BigFix Server.
4. Enter the number of megabytes to cache. The default is 1024 MB, or one gigabyte.
5. From the subsequent **Take Action** dialog, select a set of computers and click **OK**.

Chapter 12. Activating the license counting process

How to activate the license counting process.

Currently, the association of the clients to one or more products is manually performed by the BigFix Inventory (*) user.

To enable the BigFix Inventory scanner to automatically provide this association, the administrator can activate the following license counting process by:

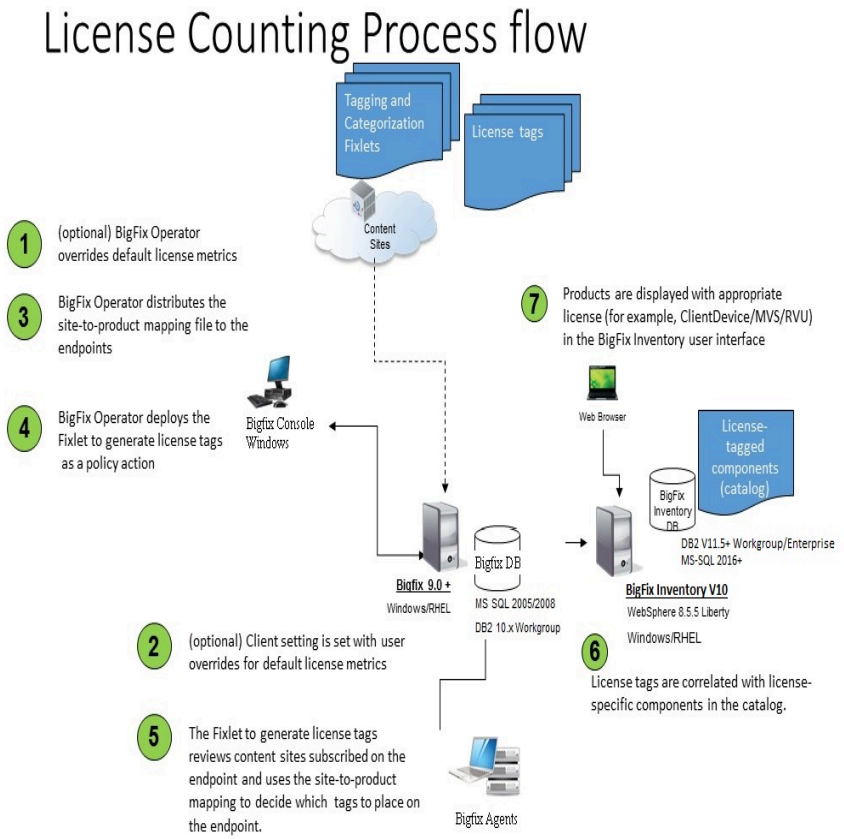
- Optionally categorizing the metric of the clients, as described in Categorizing the clients *(on page 130)*.
- Distributing the licensed products information to the clients, as described in Distributing the site mapping file *(on page 133)*.
- Generating the correct license tags on each client, as described in Generating the license tags *(on page 134)*.

After performing all these actions, it is required to run a software scan, then import the software data to see the results displayed in BigFix Inventory.

Note: (*) The concepts and procedures described in the following sections apply to both BigFix Inventory and IBM License Metric Tool (ILMT).

The following diagram shows the license counting process.

Figure 1. License counting process



Prerequisites

Before activating the license counting process, ensure that you meet the following requirements:

- Enable the ActiveX option of Internet Explorer on the computer where the console is installed as follows:
  1. Go to **Tools > Internet Options > Security tab**
  2. Select the **Internet** zone.
  3. Click **Custom Level**.
  4. Locate **Initialize and script ActiveX controls not marked as safe for scripting**.
  5. Set it to **Prompt**.

  This local Internet Explorer setting enables you to run the **Distribute site mapping file** fixlet.

Categorizing the clients

How to categorize the clients.

When you categorize the clients, you assign to the clients non-default metrics for each selected product, from the licensed ones.

The result of this operation is the value of the following client setting:

_BESClient_LicenseType_productname

Based on the client operating system, the default metric for the products is rigidly determined.

The following table displays this mapping:

Table 2. Mapping between the client platform and the product default metric

OS type	OS name example	Default metric
Supported UNIX	Solaris, HP-UX, AIX	RVU
Supported Linux	SLES, RHEL, Debian, Ubuntu, Centos	RVU
Supported Microsoft Windows Server	Windows 2008, Windows 2012	RVU
Supported Microsoft Windows non-Server	Windows 7, Windows 8, Windows 10	ClientDevice

Table 2. Mapping between the client platform and the product default metric (continued)

OS type	OS name example	Default metric
Supported Mac OS X	Leopard, Lion, Yosemite	ClientDevice, unless the operating system name allows to clearly distinguish if it is a MAC server. In this case, the default metric is RVU.

For example, if the client is a Red Hat Enterprise Linux (RHEL), the default metric for all its products is RVU.

The administrator can override the default metric for one or more products.

The possible values for all of the metric are: RVU, MVS, ClientDevice.

To set the metric to RVU, MVS, or ClientDevice, the administrator runs the Fixlet **Categorize RVU Clients**, **Categorize MVS Clients**, or **Categorize ClientDevice Clients**.

To categorize the clients, you must complete these steps from the BigFix console:

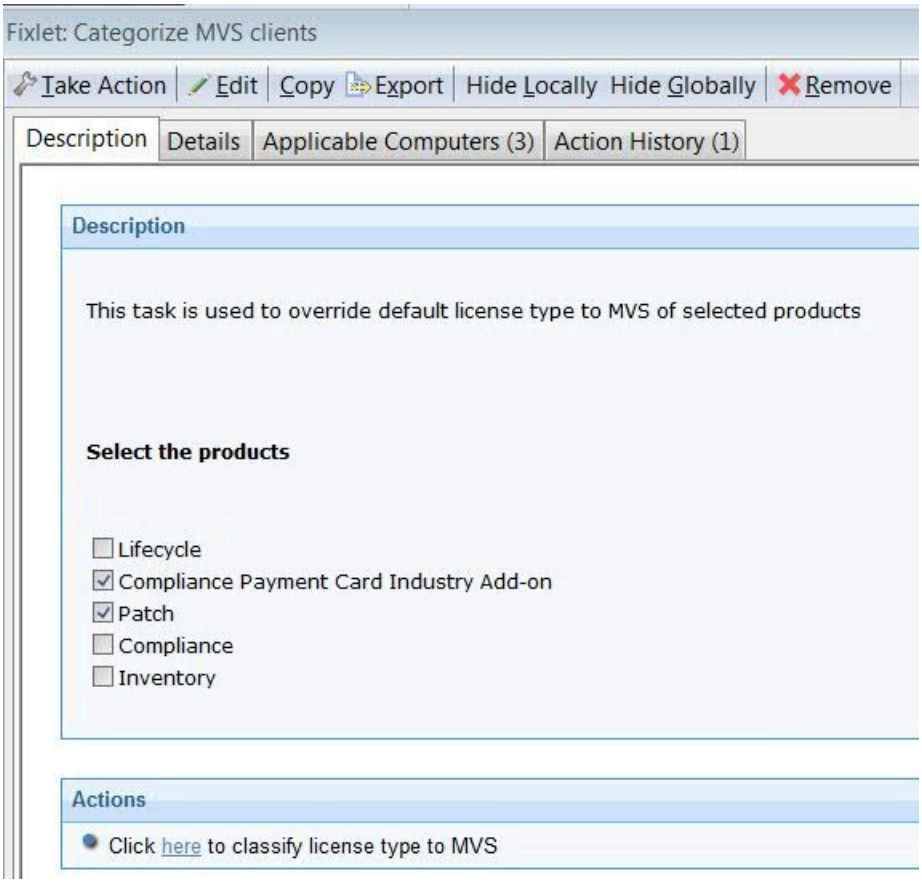
1. Go to **Sites > External Sites > BES Support**.
2. Select **Fixlets and Tasks**.
3. Depending on your needs, select in the **Fixlets and Tasks** pane:
    - **Categorize ClientDevice clients** to override the default license type of selected products to ClientDevice.
    - **Categorize MVS clients** to override the default license type of selected products to MVS.
    - **Categorize RVU clients** to override the default license type of selected products to RVU.

Example, to override to MVS the license type used by the products:

- Compliance_Payment_Card_Industry_Add-on
- Patch

See the following panel.

Figure 2. Categorize MVS clients



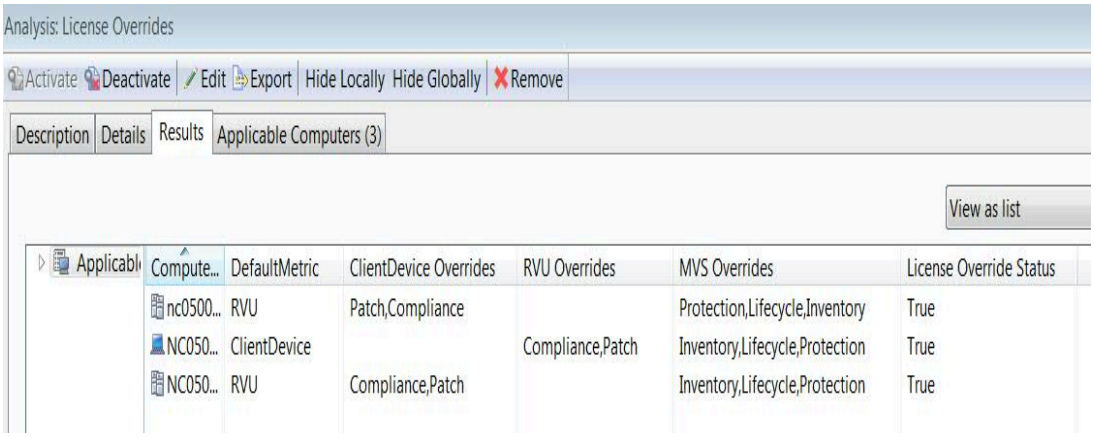
Displaying the current license metrics

An analysis is a collection of property expressions that a console operator uses to view and summarize properties of client computers.

In this case, the **License Overrides** analysis displays the following information for each client computer:

- Its license default metric.
- The lists of products for every overridden metric, distinguished by metric.
- The **License Override Status** Boolean flag.

Figure 3. License Overrides analysis



Distributing the site mapping file

How to distribute the site mapping file.

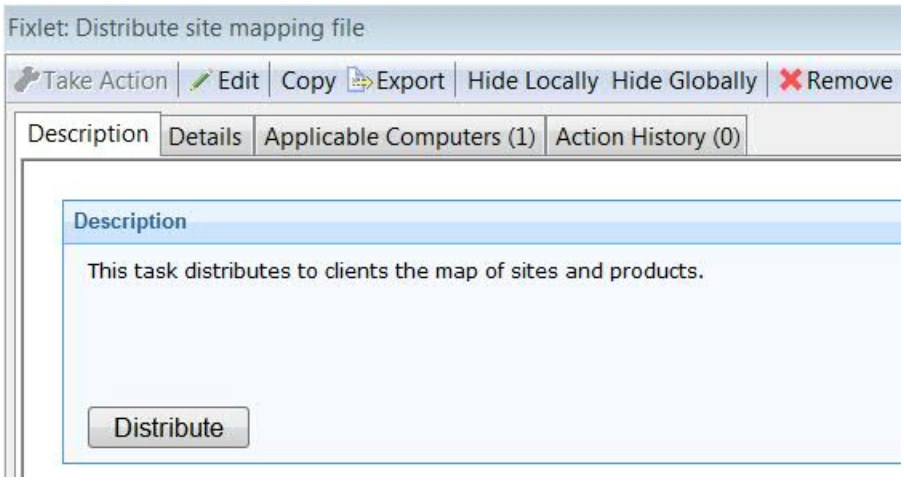
The **Distribute site mapping file** Fixlet is responsible for updating the licensed products and their related sites on the clients.

The site mapping file must be available on the clients before generating the license tags.

To distribute this file, you must complete the following steps:

1. Go to **Sites > External Sites > BES Support**.
2. Select **Fixlets and Tasks**.
3. Select **Distribute site mapping file** in the **Fixlets and Tasks** pane. This action immediately distributes a mapping file, which maps sites and products, to the subscribed computers. Repeat this action when you install new products.

Figure 4. Distribute site mapping file fixlet



Generating the license tags

How to generate the license tags.

- Run the **Distribute site mapping file** Fixlet before generating the license tags.

The **Generate BigFix license tags** Fixlet is responsible for updating the license tag of the product for each site to which the clients are subscribed.

If the client has no site subscription, then it will store tags for all licensed products.

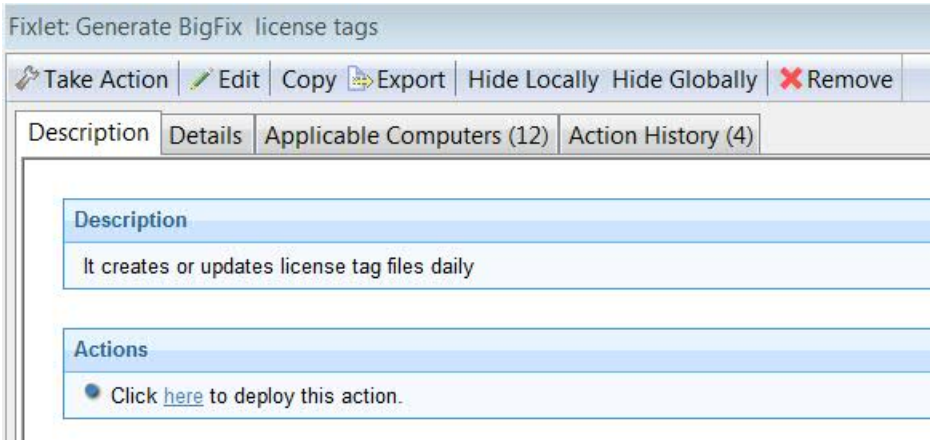
Each tag reflects the product name, the metric (default or overridden by the user) and the agent version. It is located in the appropriate directory. The previously installed client tags, related to the platform agent, are kept hidden when the Fixlet completes successfully and are no longer displayed by the BigFix Inventory console.

To generate the license tags, you must complete the following steps:

1. Go to **Sites > External Sites > BES Support**.
2. Select **Fixlets and Tasks**.
3. Select **Generate BigFix license tags** in the **Fixlets and Tasks** pane. This action creates the license tags on the subscribed computers.

Note: The Fixlet **Generate BigFix license tags** must be run manually the first time; then it is scheduled to run daily.

Figure 5. Generate BigFix license tags Fixlet



Troubleshooting

A BigFix Inventory troubleshooting scenario.

If BigFix Inventory misinterprets the license tags that were specified on the BigFix client computer, the endpoint is not correctly classified and the manual classification is required in BigFix Inventory.

When the license counting process cannot generate all the tags, it ends by hiding the ones of the BigFix Platform agent.

Chapter 13. Displays and Reports

Web Reports

The **Web Reports** program can monitor, print, or archive the status of the local database.

It allows you to get an overview of your relevant Fixlet messages and any subsequent remediation efforts. You can create charts summarizing the number of administered computers in your network and your overall vulnerability status. In addition, you find comprehensive statistics and a list of the most common issues detected. You can drill down into these commonly relevant Fixlet messages at any time to see them in greater detail.

Web Reports also has the ability to read the databases of other BigFix Servers and aggregate the data. This offers you a top-level view of a large or far-flung enterprise with multiple database servers. Aggregation servers allow you to view information from multiple networks with hundreds of thousands of computers.

You can view the data in the database from several different points of view and save or print the output. You might also export the output to Excel for further manipulation. These features are provided by the BigFix Web Reports program, which can be run at any time from the desktop by selecting **Tools > Launch Web Reports**. You must supply your credentials to log in. When you do, you are shown the introductory panel:



There are three main links at the top of the panel.

- **Explore Data:** Click this link to look at a group of predefined reports and charts that you can easily filter and customize. This section provides you with an instant overview of the most basic data managed by BigFix, including Computers, Actions, Operators, and more.
- **Report List:** Click this link to get a look at basic reports organized around your Fixlet content. Create and customize reports with a simple, intuitive interface. Some commonly-requested reports are built-in, such as Operating System Distribution and Vulnerability Trends. Select them for display by clicking their titles in the list. You can

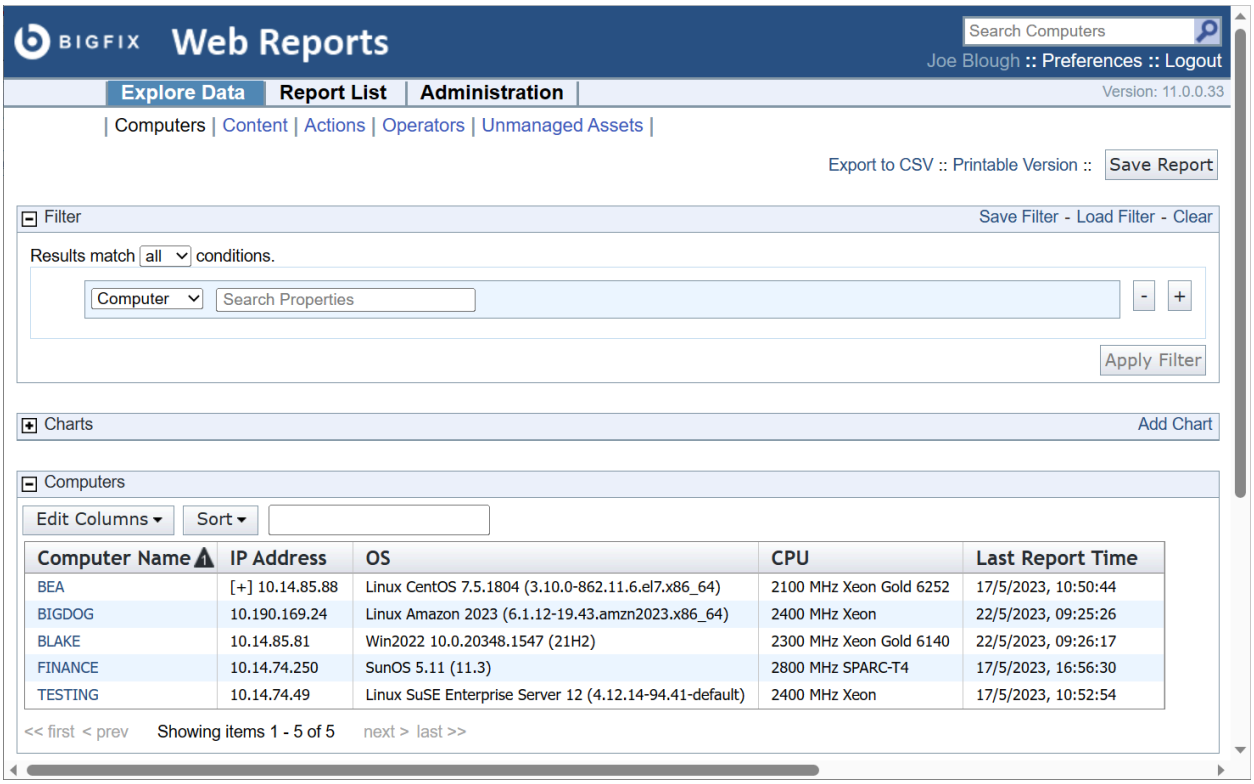
create your own custom reports and save them as either public or private (viewable only by you). Your public reports are added to the reports list; your private reports are only available when you log in with a correct password.
- **Administration:** Click this link to gain access to various administrative functions, including scheduling activities, managing filters, operators, database settings, and users.

In addition, there are two report categories to get you started.

- **Starred:** This link takes you directly to favorite reports that you have flagged as starred.
- **My Authored:** This link takes you to a list of those reports you personally created.

Depending on your configuration, there might be more categories available from this startup panel.

Here is a snippet of a typical report, summarizing the computers in your network by their properties. To produce this report, simply click **Report List** then select **Computer Properties List**.



Web Reports can be viewed at any time from the Console under **Tools > Launch Web Reports**.

Any Web Report server can be set up to aggregate data from the other BigFix Servers. Talk to your Site Administrator about setting up an aggregation server. Refer them to the **Administrator's Guide** for further information.

The Web Reports interface is very rich and its complete documentation is beyond the scope of this guide. For more in-depth information, see the **Web Reports Guide**.

Viewing Dashboards

Dashboards are list of reports that update in real time and provide you with high-level views of your BigFix network.

Click the **All Content** domain to see all dashboards that are available in your environment in the Domain Panel navigation tree under **Dashboards**. If you select a specific content site,

you see only the dashboards available with that content site. These reports access the database to provide you with timely and compact views of your network.

To run a dashboard, select it from the **Dashboards** icon in the Domain Panel navigation tree. The dashboard is shown in the Work Area on the right.

When you install the BigFix Console, you get the following set of dashboards:

- Baseline Synchronization Dashboard *(on page 140)*
- Deployment Health Checks Dashboard and Deployment Overview Dashboard *(on page 143)*
- License Overview dashboard *(on page 145)*
- Maintenance Windows Dashboard *(on page 155)*
- Relay Health Dashboard *(on page 157)*

Baseline Synchronization Dashboard

Use the Baseline Synchronization dashboard to make sure that your baselines, source Fixlets, and actions are in sync. Ensuring that your baseline components are in sync with the source Fixlets prevents issues when you deploy actions across an entire network.

This sample scenario shows how strategic the use of this dashboard can be. Assume, for example, that you created and tested a new set of baselines when a vendor reports that there was an error with some of their patches. For this reason new Fixlets, replacing those containing the patches in error, are released by BigFix. It can be time consuming to check which of your baselines were affected. By using the Baseline Synchronization Dashboard, you can, with just a few clicks, view which of your baselines are out-of-sync and automatically update their content if necessary.

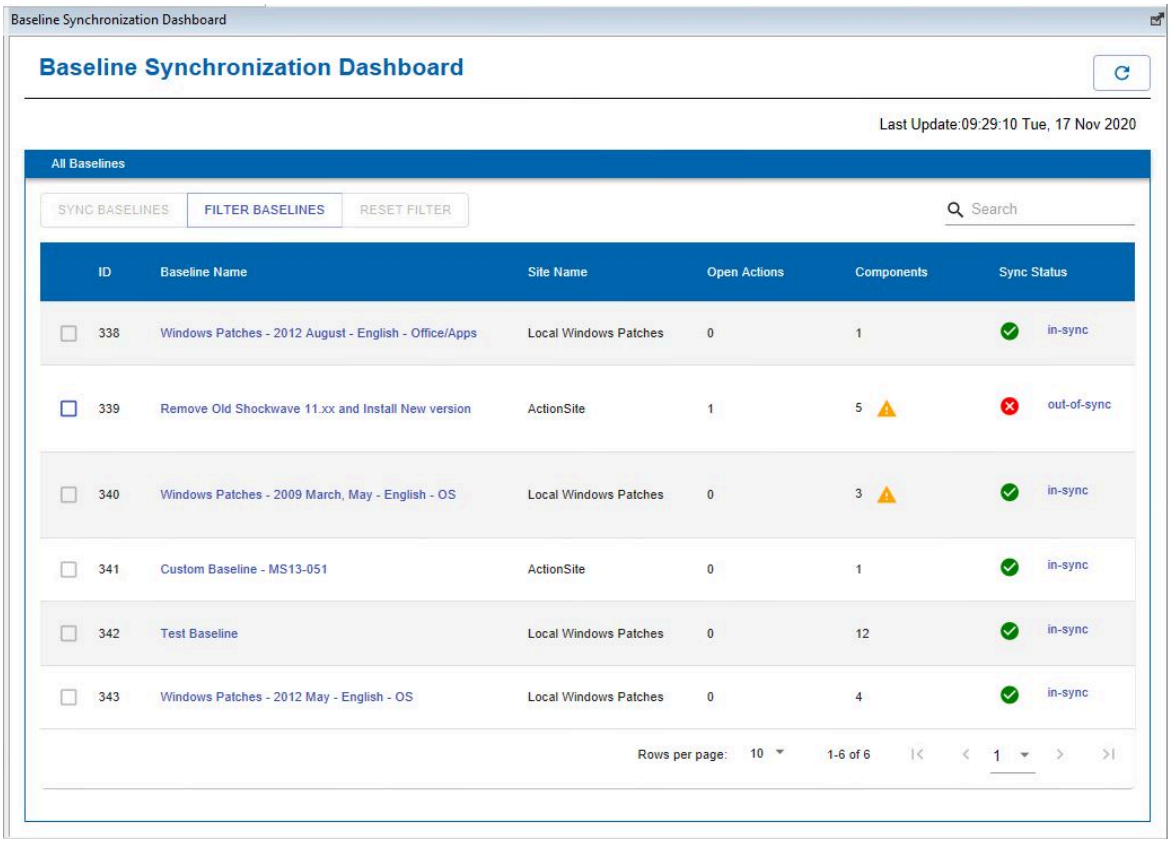


Note: This dashboard also displays all the actions that are from an out-of-sync baseline, giving you the option to close them and issue them again.

Run the following steps to access the Baseline Synchronization Dashboard:

1. Click the **All Content** domain in the Domain Panel.
2. Select the **Dashboards** icon in the Domain Panel navigation tree.

3. Select **BES Support**.
4. Click **Baseline Synchronization Dashboard**. The dashboard opens.



The dashboard shows the following information for each baseline:

- ID
- Baseline name
- Site name
- Number of open actions
- Number of baseline components
- Synchronization status

The exclamation mark icon in the components column highlights that the baseline, even though in sync, might have a misconfiguration within its members. Such misconfiguration might cause problems if not corrected. Hovering over the icon you see the detail of the misconfiguration. For example, these might be causes of misconfiguration:

- Some component relevance is out-of-sync.
- Some components do not have source Fixlets.
- Some component actions do not have any source actions.
- No components exist in the baseline.
- This baseline contains components that have no action selected.

From this dashboard you can:

Search for a specific baseline

You can search for a specific baseline by specifying its ID, name, or site name in the **Search** field.

Filter baselines to limit the out-of-sync baselines in the dashboard

You can filter the baselines that you want to display in the dashboard by clicking **Filter Baselines**. You can select any of the following conditions:

- Relevance is out-of-sync.
- Action out-of-sync.
- Source Fixlet ID or name.

The baselines can match either any or all of the conditions that you selected. After selecting the conditions, click **Apply**.

Reset the out-of-synch baseline filter

You can view all the baselines, without any filtering, by clicking **Reset Filter**.

View the synchronization status of the baseline components

To know which Fixlets have parts that are out-of-sync with respect to the source Fixlet, click **Sync Status** beside each out-of-sync baseline.

The Baseline Components List dialog displays the sync status of each component in detail.

Synchronize baselines

A baseline is out-of-sync when the baseline component's relevance or action is different from that of the source Fixlet. To synchronize a baseline means to update the baseline components to match the relevance of the source Fixlets.

In the Baseline Synchronization Dashboard, select the out-of-sync baselines and click **Sync Baselines**.

Deployment Health Checks Dashboard and Deployment Overview Dashboard

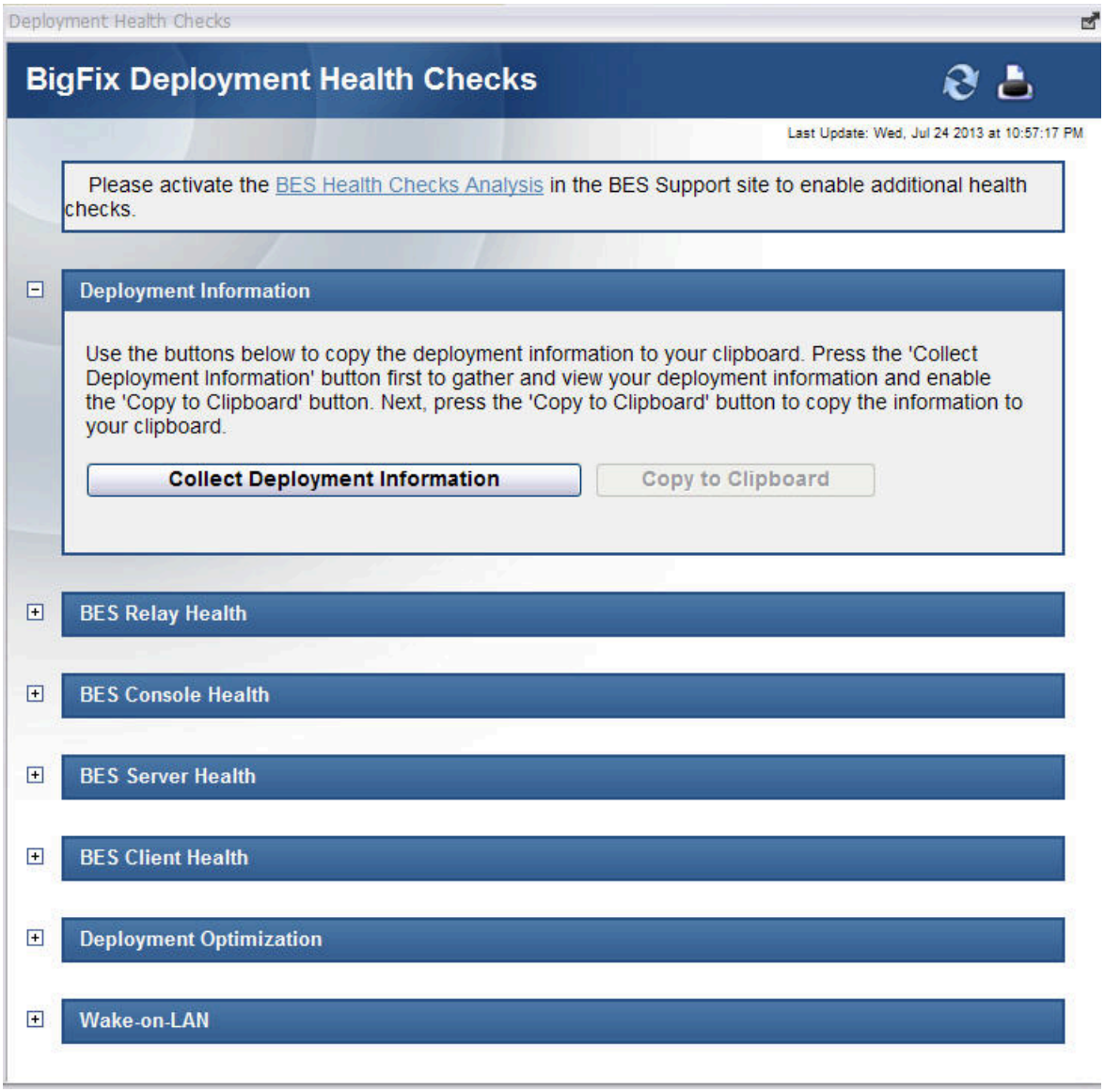
Use the Deployment Health Checks Dashboard and the Deployment Overview Dashboard to manage and monitor the health of your BigFix environment.

The dashboards track important health indicators for Relay Health, Console Health, Server Health, Client Health, and Deployment Optimization. For each of these checks you see:

- A description
- Specific deployment details
- Severity of **High**, **Medium**, or **Low**
- Status of **Passed**, **Warning**, or **Failed**
- Remediation steps

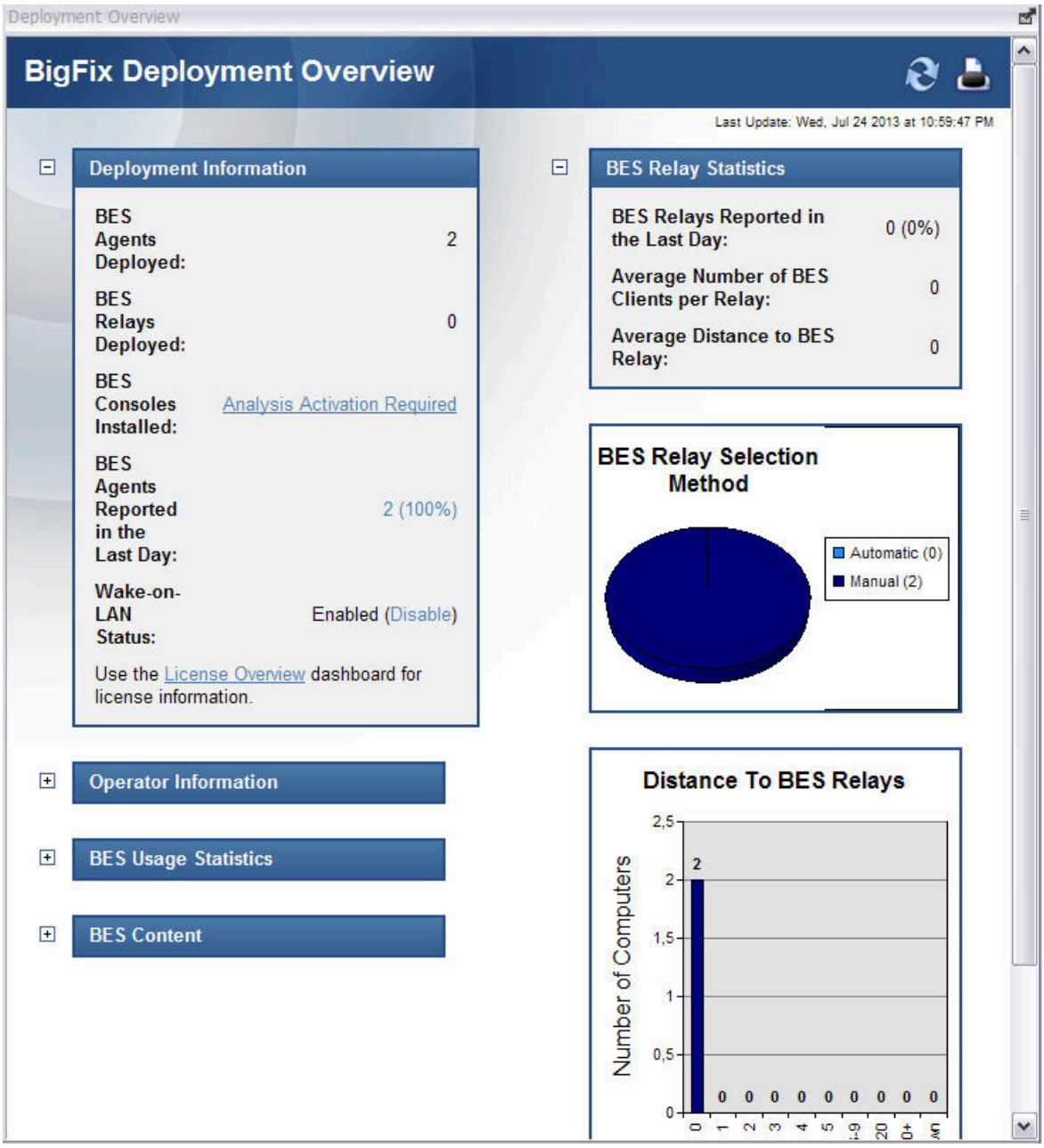
BigFix Console administrators should regularly review this dashboard and remediate any failure as described in the check.
Run the following steps to access the Deployment Health Checks Dashboard:

1. Click the **All Content** domain in the Domain Panel.
2. Select the **Dashboards** icon in the Domain Panel navigation tree.
3. Select **BES Support**.
4. Click **Deployment Health Checks Dashboard**. The dashboard opens.



Run the following steps to access the Deployment Overview Dashboard:

1. Click the **All Content** domain in the Domain Panel.
2. Select the **Dashboards** icon in the Domain Panel navigation tree.
3. Select **BES Support**.
4. Click **Deployment Overview Dashboard**. The dashboard opens.



License Overview dashboard

Use the License Overview dashboard to enable the external sites and to get visibility of your license status compliance.

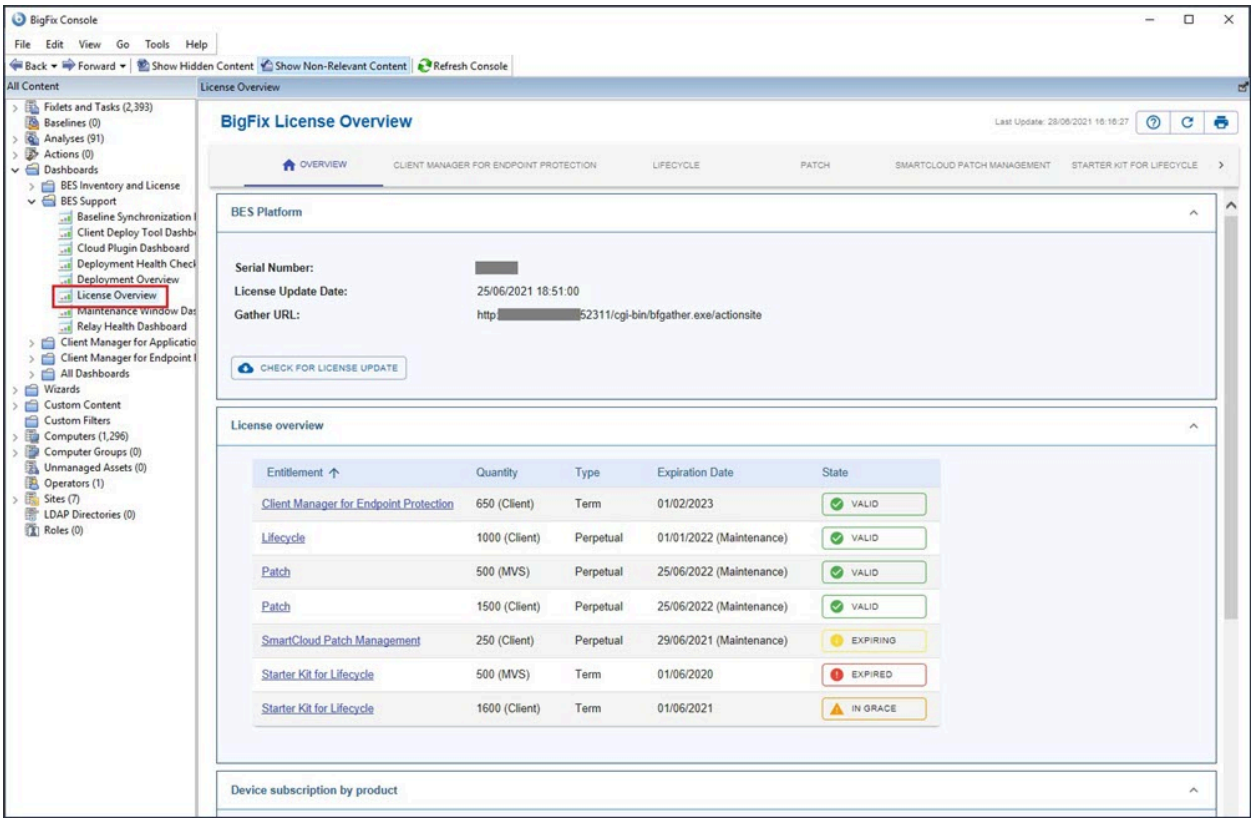
When you enable external sites, content automatically flows from these sites into your environment and is evaluated for relevance on all subscribed computers running the BigFix Client.

The list of available external sites that you see in this dashboard is strictly related to the BigFix license that you purchased. When you buy BigFix, you receive a license serial number that defines which products in the BigFix suite you purchased. This information is used by the product to populate, at installation time, the License Overview dashboard with the references to only the products in the suite that you purchased.

Note: License Overview dashboard went through significant changes in the aim of deep diving the license compliance status, starting from product version 10.0.4. Information available only in 10.0.4 and later are highlighted throughout this section.

The main changes regard the dashboard layout: the previous single view is replaced by a multiple-tab structure.
In particular:

- *Overview* tab: reports a summary of your BES Platform license status as well as a "License overview", a "Device subscription by product" and a "Sites" tables.
- <*Product Name*> tabs: report details about the entitlements associated to a specific product.



Overview Tab

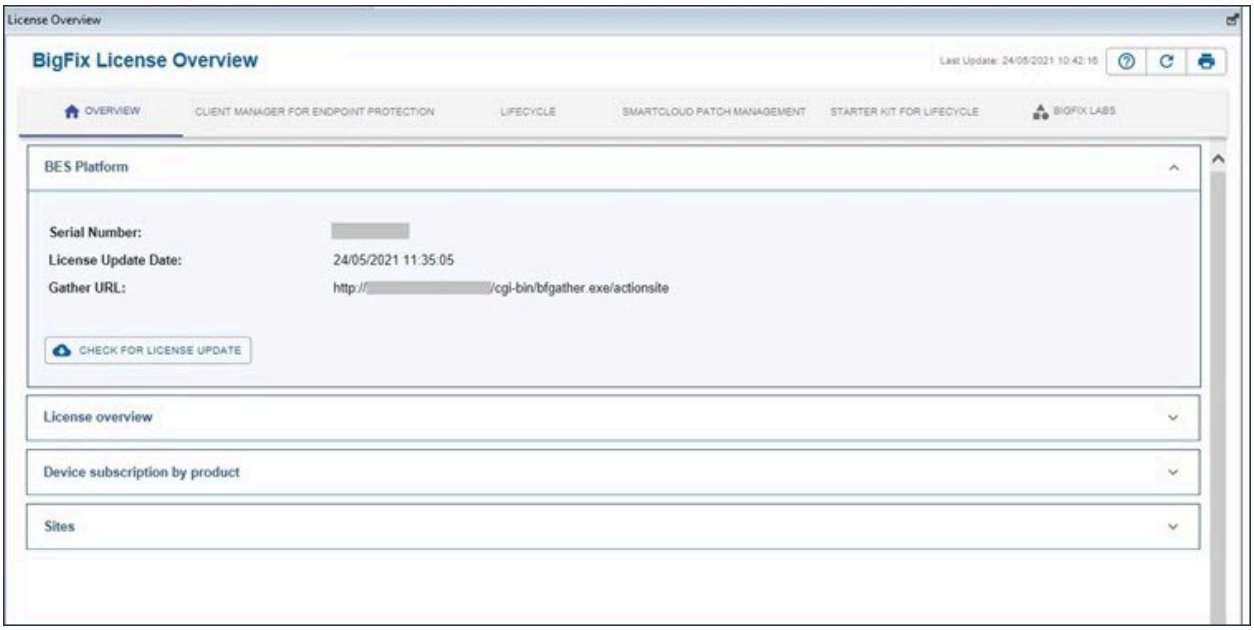
The **Overview** tab is organized in four sections, reporting the following summaries:

- Your *BES Platform* license information
- Your *License overview* status
- Your *Device subscription by product* information
- Your *Sites* subscriptions information

BES Platform

The **BES Platform** section, available in both the old and new version of the dashboard, provides information about your BES Platform license. Here you can find the serial number, the update date and the reference URL for the gather.

It also allows you to check for any license updates.



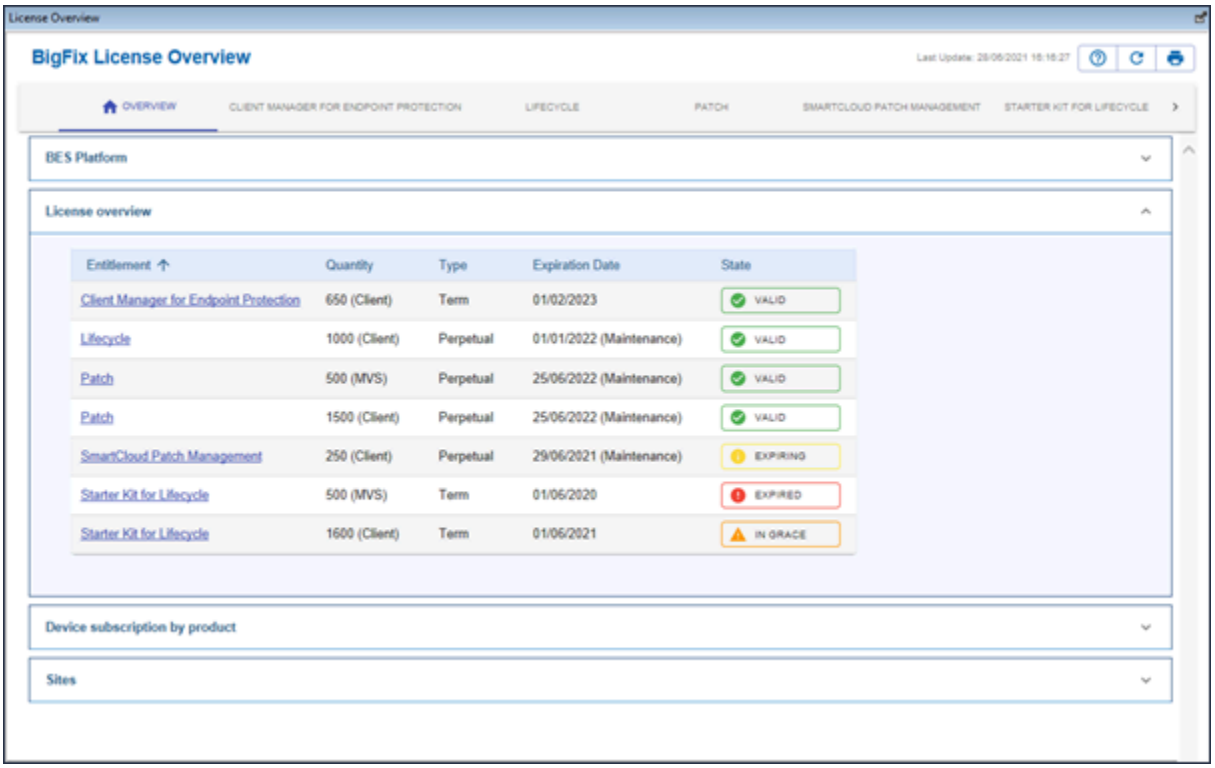
License Overview

Available only if you are running Platform 10.0.4 or later, this section provides you with the status of each entitlement of each product included in the license. The status of each entitlement can be:

- **VALID**: The entitlement is valid for the product.
- **EXPIRING**: The entitlement is about to expire and there are *less than 21 days* left to the expiration date.
- **IN GRACE**: The entitlement has expired, but a temporary grace period is being granted to allow you to renew your license. No enforcement is applied during the grace period.
- **EXPIRED**: The entitlement has expired; enforcement actions are applied, where applicable.

Note:

- For a **Perpetual** entitlement, the expiration corresponds to the expiration date of the most future Maintenance contract for the specific BigFix product.
- For a **Term** entitlement, the expiration corresponds to its expiration date.



After entitlement expiration, a grace period may be granted for customers who are actively working with HCL for renewal. During the grace period, no enforcement action is applied.

Also note that for an evaluation license the grace period is 30 days starting from the expiration date of the "Try and Buy" entitlement.

Starting from version 10.0.4 and for each entitlement state, the BigFix Platform will adopt a specific behaviour based on the entitlement type of a product.

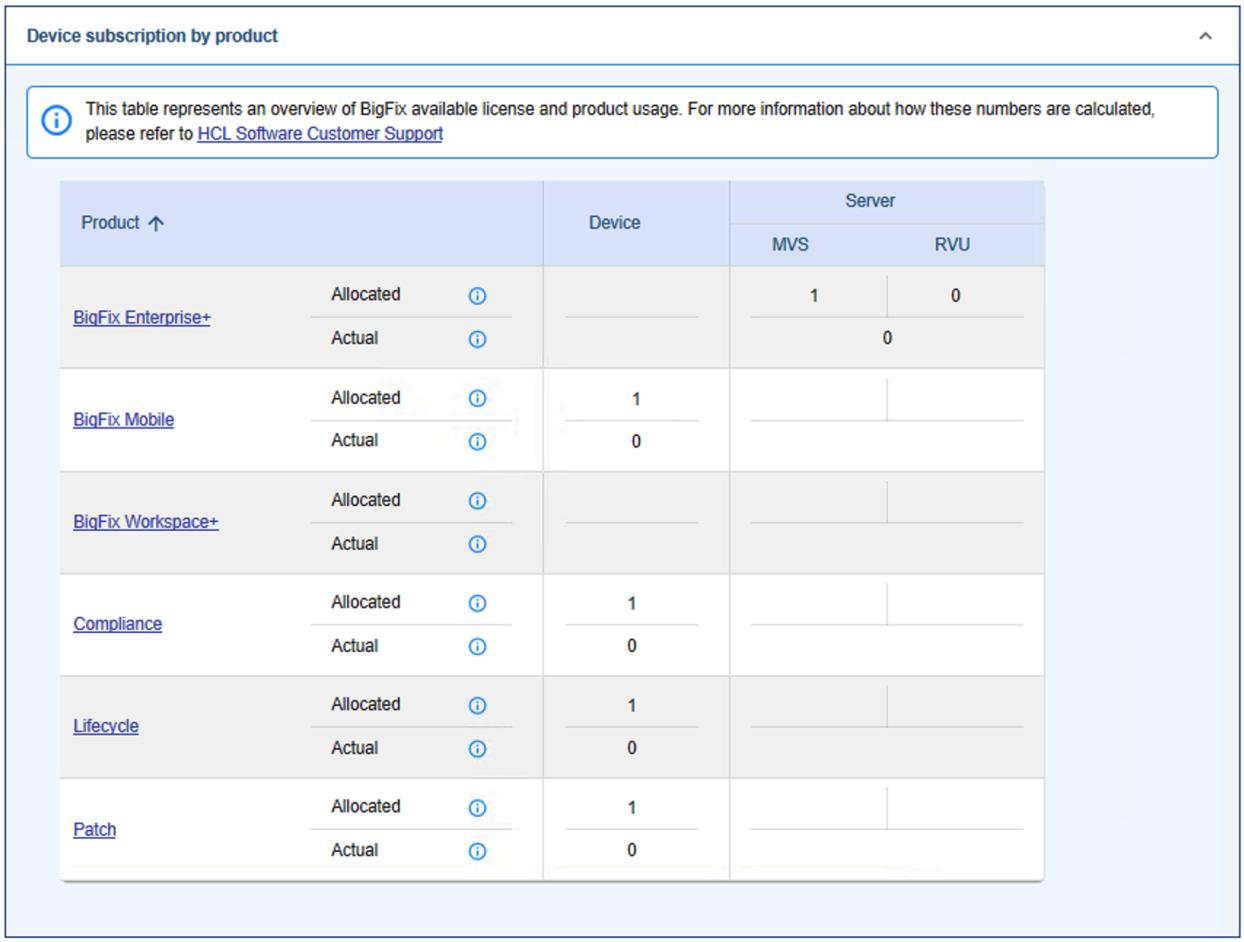
1. **EXPIRING** or **IN GRACE** period:
    - **Term** entitlements: no enforcement is applied. The BigFix Console displays license warnings.
    - **Perpetual** entitlements: no enforcement is applied. The BigFix Console displays license warnings.
2. **EXPIRED** period:

- **Term** entitlements: the BigFix Server stops gathering external site updates, except BES Support. The BigFix Console hides the contents of the external sites (except BES Support). The BigFix Console displays license warnings.
- **Perpetual** entitlements: the BigFix Server stops gathering updates, except BES Support. The BigFix Console displays license warnings.

Device subscription by product

Available only if you are running Platform 10.0.4 or later, this section shows the number of subscriptions by product. A used license corresponds to a device subscribed to the external sites belonging to a product of the license.

Note: This section is only aimed to provide visibility info about the deployment. No enforcements are applied based on these data.



For the counts:

- The ***Available*** information in the "Device" column is the sum of the "MobileCount" for the "BigFix Mobile" product, the "DeviceCount" for the "BigFix Workspace," "BigFix Workspace Package," and "BigFix Workspace Package Plus" products, and the "ClientDeviceCount" for all other products.
- The ***Actual*** information in the "Device" column is the sum of all subscribed computers whose LicenseType is either "Client Device," "Mobile," or "MCM Device." All other proxy devices (including the Cloud type) are excluded from the count.
- The ***Available*** information in the "Server" column is the MVS count and the RVU count for all products.
- The ***Actual*** information in the "Server" column is the sum of all subscribed computers whose LicenseType is "Server."
- The type of license consumed by each device is returned by the global reserved property named **License Type**.
- The count is made on the single product.
- If an external site belongs to several products, each new subscription is associated with the product according to the following priority list:
    - Patch
    - Inventory
    - Remediate
    - Lifecycle StarterKit
    - Lifecycle
    - Compliance
    - BigFix Mobile
    - BigFix Runbook AI
    - BigFix Workspace 2023
    - BigFix Workspace
    - BigFix Workspace US Federal
    - BigFix Workspace+
    - BigFix Enterprise
    - BigFix Enterprise+
- All products not belonging to the *priority list* have lower priority than all.

- When the number of subscriptions reaches the maximum authorized endpoints of a product, each new subscription is associated with the product with the lowest priority.
- In ***Available*** rows, we have the maximum authorized endpoints:
  - For **Perpetual** entitlements, the count is the sum of all the Perpetual items of the same type.
  - For **Term** entitlements, the count is the sum of all VALID and EXPIRING Term items of the same type. Therefore, IN GRACE and EXPIRED Term items *DO NOT* contribute to the license count.
- In ***Actual*** rows, we count the endpoints who reported in the last 30 days.

Server endpoints can be licensed either via MVS or RVU. The numbers in the **Actual** rows are therefore associated with both these types of licenses.

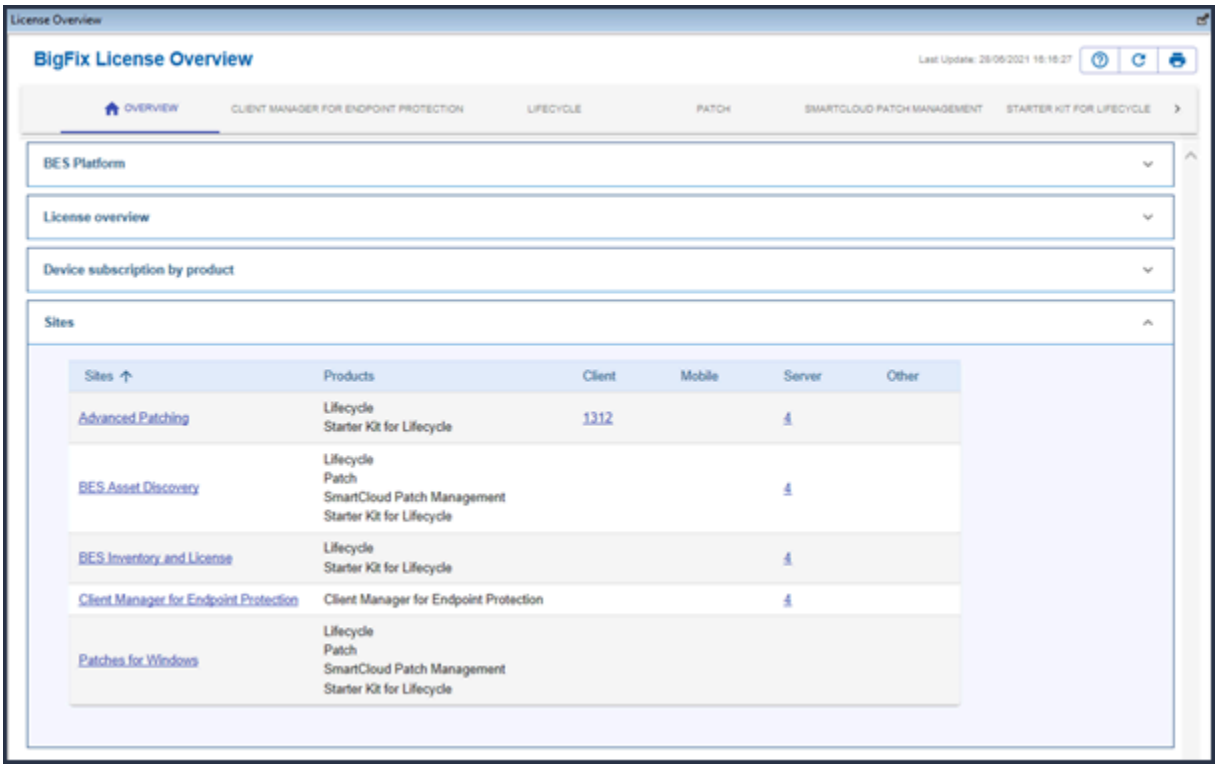
For more information about how these numbers are calculated, and on BigFix license compliance, please refer to the online document (HCL Software Customer Support) referenced in the table itself.

Sites

Available only if you are running Platform 10.0.4 or later, this section shows the number of subscriptions by external site.

The table lists all the subscribed external sites, the referenced products and the number of subscribed Client, Server and Mobile devices. There is also an Other column which collects the number of subscriptions of devices that do not belong to any of the previous categories.

This table is very similar to the one in the previous version of the dashboard, but instead of showing the sites of a single product it shows all the sites that have been enabled. For the table of external sites by product see below in Product Name tabs.



Product Name tabs

These tabs provide information about the status of each product. The information reported in each product tab is the same as reported within the old version of the License Overview dashboard, still available to customers running Platform 10.0.3 or earlier.

Each tab is made up of two sections.

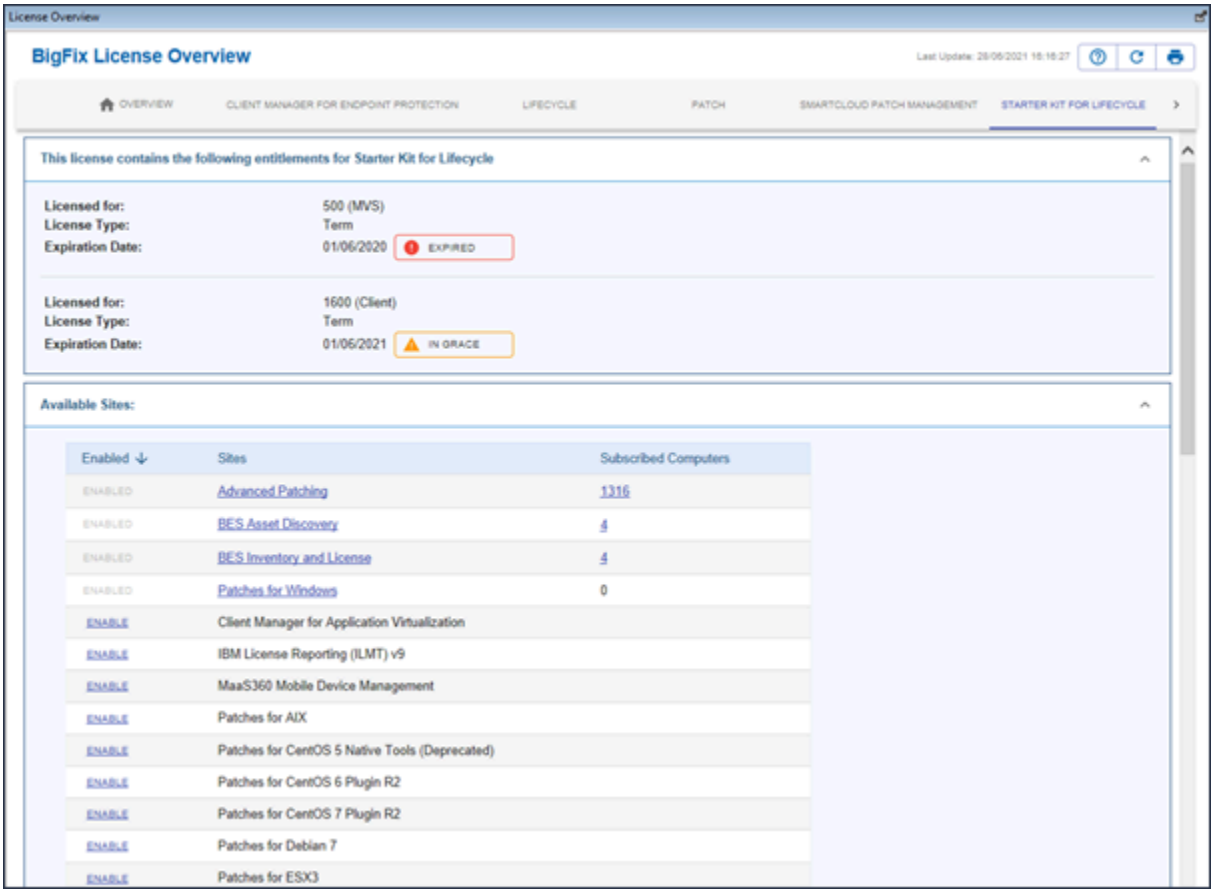
The first section lists all the entitlements for the product. For each entitlement, it indicates:

- The maximum number of devices authorized to subscribe to the external sites.
- The type of the entitlement.
- The expiration date and the status of the entitlement.

The second section consists of a table with all available external sites for the product. The number of subscribed devices is shown for each site.

Except for the BES Support external site, to which all computers are automatically subscribed at installation time, you must use the License Overview dashboard to manually enable any external sites covered by your license.

To do this, you can use the dedicated **Enable** button next to each site.



For example, even though your license may include the Patch product, you would still need to access the License Overview dashboard to enable any available external sites for the Patch product, when you want to start using it.

Run the following steps to access the License Overview dashboard:

1. Click the **BigFix Management** domain in the Domain Panel of the BigFix Console
2. Click on the **License Overview** dashboard. The dashboard opens.
3. Select the desired product by clicking the corresponding tab or the name in the "License overview" table.
4. Scroll down the dashboard to review the external sites that you have already enabled and those that are available but not yet enabled.

For more information about how to use the License Overview dashboard and the information it contains, see Post-installation steps Post-installation steps in the Installation Guide.

Note: : Starting from BigFix Version 10.0.4, License Overview Dashboard also offers the possibility to manage anomalous cases in which there are several sites that refer to the same URL. For more details, see Managing duplicate external sites.

Maintenance Windows Dashboard

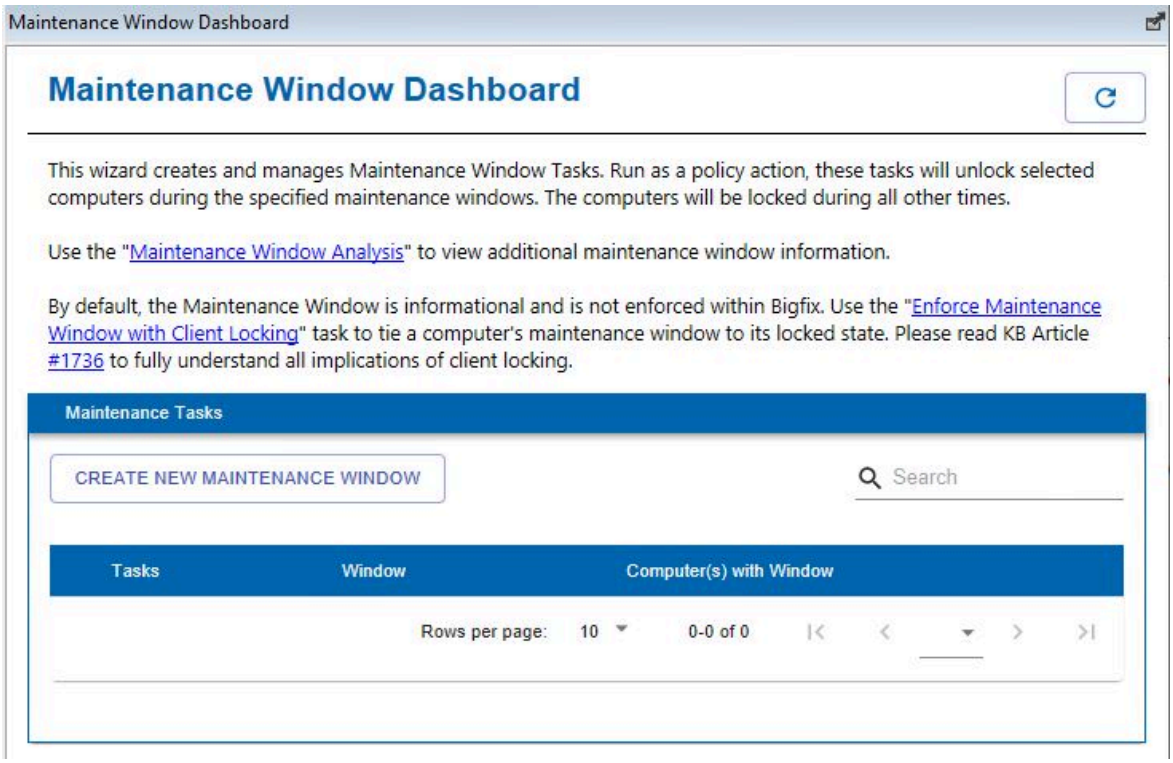
Use the Maintenance Window dashboard to define time periods during which BigFix can run actions; mainly maintenance activities.

Client locking allows computers or groups of computers to be excluded from running actions. Client locking can be useful, for example, if specific development computers must be excluded from changes or updates. It also provides a technique for testing new actions on a limited set of unlocked computers, while keeping the network locked down.

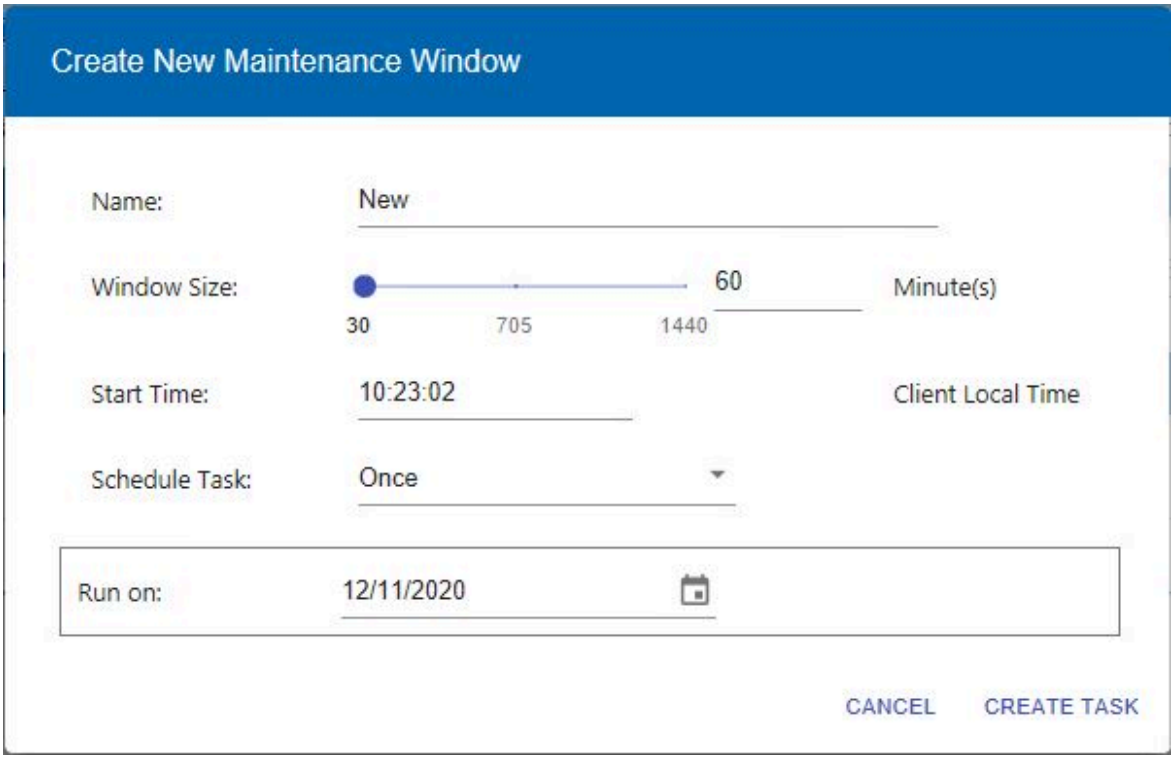
With the Maintenance Window dashboard, you can set and enforce maintenance windows for BigFix Clients. You can use the Maintenance Window dashboard and tasks to change or remove the maintenance window. You can use the Maintenance Window Analysis also to see the current maintenance window for your computers.

Run the following steps to enforce a maintenance window on a computer or on a group of computers:

1. Click the **All Content** domain in the Domain Panel.
2. Select the **Dashboards** icon in the Domain Panel navigation tree.
3. Select **BES Support**.
4. Click **Maintenance Windows Dashboard**. The dashboard opens.



5. Click **Create New Maintenance Window** to set a new Maintenance Window. After you create a maintenance window, you can see it under **Maintenance Tasks**.





Note: If you create a weekly maintenance window with a retroactive starting date (a date that is earlier than the current date), then the Maintenance Window Analysis will return wrong values for the *Next Maintenance Window* property until the first run. Select current or future dates.

6. Use the "Enforce Maintenance Window with Client Locking" task to set a maintenance window on a computer. The computer is unlocked when it is in the maintenance window and locked for the remainder of the time. Each computer can have only one active maintenance window at any time. The "Enforce Maintenance Window with Client Locking" task updates the state and the date of the lock of the client, therefore any locking or unlocking action taken before this date is ineffective. Similarly, this task becomes ineffective if any locking or unlocking actions are taken later on. In this case, you must run this task again.



Note: Alternatively you can lock or unlock a computer, by running the following steps:

   a. Right-clicking on the computer.
   b. Selecting **Edit Computer Settings**
   c. Clicking the check mark to lock or unlock the computer.

7. Click the maintenance tasks to apply the maintenance window to computers.
8. After a maintenance window is set on a computer, it returns true or false in the "Maintenance Window" property.

Relay Health Dashboard

Use the Relay Health dashboard to monitor the status of your relays across the entire network.

From the BigFix console, click **Dashboards > BES Support > Relay Health Dashboard**.

The **Relay Health Dashboard** shows you specific details about the relays of your BigFix environment.

Note: As a prerequisite, activate the analysis named **3346 - Collect BES Relay Health Dashboard Cache Metric** before viewing the data displayed by the Relay Health Dashboard.

When you access the Relay Health Dashboard, you are in the **Overview** tab.

Click the **Settings** icon of the **Overview** tab to specify which tables should be displayed by the **Overview** tab.

The **Overview** tab displays specific information in different tables.

Click the **Settings** icon of each single table to:

- Specify the number of lines displayed by the table.
- Specify the number of tables displayed in a row.
- Set the value which should be considered as a Critical Threshold or a Warning Threshold for the table data. According to these thresholds, the item name in the table is highlighted in yellow if the item is approaching the maximum limit configured, and it is highlighted in red if the item is above the maximum limit configured.

There might also be specific table-related settings which vary from table to table.

Endpoints per Relay

Displays the number of client computers for each relay. The "average value" row shows you how imbalanced the deployment is.

Hierarchy

Displays the relay hierarchy in an histogram. Where 1 means the top-level relay, 2 means the secondary relay, and so on.

Note: This table helps you also identifying any relay loops, if present.

Note: If you have defined a last fallback Relay in your environment and in case the "BES Root Server" property is not returning the real BigFix server name but the FQDN of the last fallback Relay, in order to



display correctly the hierarchy panel, use the `BESAdmin` command to set for the advanced option named `RHDServerHostname` the FQDN of the BigFix server as its value.

Inactive

Displays the relay inactivity period, which means the period since the last report sent by the relay was received. It also displays the **Service Status**. If the service status is stopped, the relay name is highlighted in red.

Relay Cache

Alerts you when the relay cache of a specific endpoint is above a preset threshold, which can be defined in the settings. When clicking the relay name, you open the computer properties. In this panel, you can check the download cache limit configured for that relay to understand why the relay is currently deleting cache files.

Relay Sites Version

Displays which relay might need attention because the sites it is gathering are not up-to-date. A site not up-to-date is not necessarily a symptom of an issue, it could be due to the fact that the clients in the relay chain are no longer subscribed to the site. In the column **Version difference**, it is displayed how many versions behind the root server a specific site version, gathered by the relay, is.

Click the **Relay** tab.

The **Relay** tab displays:

- The relay name.
- The number of client computers attached to the specific relay.
- The maximum distance between the relay and its client computers. The table column **Max Hops** displays 0 when the relay and its client computers are within the same subnet. While it displays not applicable when no client computer is attached to that relay. It displays not applicable even if not all distances are known.
- The relay hierarchy (top-level).

Note: Enter the relay name in the search bar, at the top right of the tab, to easily locate a relay.

Chapter 14. Menus

File Menu

The **File Menu** offers the following commands.

Import	Import .bes files, which can be default Tasks, Actions, Baselines, or other content that you might have created or customized.
Export	Export a Task, Action, Fixlet, Baseline, and so on. that you or another Console user can subsequently import. Exporting provides a useful mechanism for creating customized content. Simply export the content, edit it with any text editor, and then import the customized version.
Preferences...	Set refresh, BigFix Client heartbeat, colorizing, caching, and other persistent Console preferences.
Change Password...	Change the sign-in password for the currently connected user.
Lock Console...	Lock the local BigFix Console instance immediately. This option is particularly useful because it hides the entire console to prevent any other user to see or use it. This option is available starting from BigFix version 11.0.7.
Exit	Quit the program.

Edit Menu

The **Edit Menu** offers the following commands.

Table 3. Edit menu

Command	Description
Cut	Cut text and put in clipboard. This command is for use in the various text boxes that the Console uses for data input.
Copy Text	Copy text and put it in the clipboard.
Copy Text with Headers	Copy text, including any associated headers, and put it in the clipboard.
Paste	Insert the contents of the clipboard. This option is only activated when there is an editable text box on the panel.
Select All	Select all items in the current window. Depending on the window, this can be text from the Work Area or items in the List Panel.
Hiding >	Remove the selected objects, Fixlets, Tasks, Baselines, or Analyses, from the List Panel. The object itself is not actually deleted, and can be retrieved by clicking **Show Hidden Content** in the Console Toolbar. These options only become available when you click objects in the List Panel. Alternatively, you can right-click the objects and select hiding options from the context menu. There are four options **Globally Hide:** This hides the object across all Consoles.

Table 3. Edit menu (continued)

Command	Description
	Globally Unhide: Relist the selected objects (either Fixlets, Tasks, Baselines, or Analyses). To find the object, click the **Show Hidden Content** button. **Locally Hide:** Hide the object on the current Console only; other Consoles still display the object. The object itself is not actually deleted, and can be retrieved by clicking the Show Hidden Content button and selecting it from the navigation tree. **Locally Unhide:** After clicking the Show Hidden Content button, you can choose to unhide locally hidden content with this command.
Create Custom Object Copy...	Create a customized clone of the currently selected object (Fixlet, Task, Baseline, Computer Group, or Analysis). For each copy, you can create a header name and compose a message to describe the associated actions. You can also customize or add relevance expressions to refine the targeting of the Fixlet or Task.
Remove...	Remove a customized object (including a Fixlet, Task, Baseline, Computer Group, Analysis or Site File) from its list. Confirming this choice permanently removes the customized object from the list.

Table 3. Edit menu (continued)

Command	Description
Edit Custom Object...	Edit the Message, Action, Relevance, and Properties of a customized object (Fixlet, Task, Baseline, Computer Group, or Analysis).
Groups >	Manage groups of computers. This item expands to include: **View as Group**: Create an ad-hoc group from a selected set of computers. You can then view the Fixlets, Tasks, Baselines, Actions, and Analyses that pertain to this particular group. **Add to Manual Group...:** Add the selected computers to a named group. You can either attach the computer to an existing group or create a new named group. You must supply a password to propagate the new group name to the selected clients. **Remove From Manual Group:** Remove a computer from the specified group. First, select the group from the navigation tree on the left, then select a computer from the list. You must supply a password to propagate the change.
Stop Action	Stop the selected actions.
Assign User Management Rights...	Opens a display that lets you grant and revoke management rights on a computer-by-computer basis.

Table 3. Edit menu (continued)

Command	Description
Find...	Opens a dialog that prompts you for a search field and search string. You can search for fields that either contain or do not contain the search string. In addition, for objects that can be hidden, such as Fixlets, Tasks, Baselines, or Analyses, you can search based on visibility.

View Menu

The **View Menu** offers the following commands.

Show Hidden Content Allow hidden content, including Fixlet messages, Tasks, Analyses, and so on. to be viewed. Content can be hidden locally (on this Console only) or globally (on all Consoles). To view this content, select this item or click the button in the Console Toolbar with the same name. From the navigation tree, all content becomes visible and you can select hidden items to unhide them if you choose.

Show Non-Relevant Content Allow non-relevant content, such as Fixlet messages and Tasks, to be viewed. Typically the BigFix operates by displaying only those items that are relevant to your network. Thus, out of the thousands of available Fixlets, for example, only a few are brought to your attention for remediation. When an item has been remediated across your entire network, it is no longer relevant and is no longer shown. This menu item allows you to examine these items, which can be useful if you want to clone or repurpose one for your own uses.

Show Sta- Display the number of relevant messages and the connected database in the status bar at the bottom of the Console window. Select this menu item to toggle its state.

tus Bar	
Refresh	Fetch the latest information from the BigFix database. Typically, your information is updated automatically based on a schedule determined by your administrator (and by your choice in the Preferences dialog). Because refreshing causes a database access, use it with restraint.

Go Menu

The **Go Menu** allows you to quickly select Domains and to change the focus area of the Console.

It offers the following commands:

All Content	Open the top-level Domain that contains a combination of all Domains.
Other Domain Names	Open the specified Domain. The next few entries in this menu include the various Domains you created, depending on the specific Fixlet sites you are subscribed to.
Current List	Move the focus of the Console to the List Panel at the top right of the Console.
Current Document	Move the focus of the Console to the current document in the Work Area at the bottom right of the Console.

Tools Menu

The **Tools Menu** offers the following commands.

Take Custom Action...	Run a custom command, targeted to any subset of BigFix Client computers.

Create New Fixlet...	Create a custom Fixlet message, complete with targeting and actions.
Create New Task...	Create a custom Task, similar to a Fixlet message, but used by the Console operator to install software, update settings, or establish other local policies.
Create New Baseline...	Create a custom Baseline, allowing you to establish a grouping of Tasks, Fixlet messages, and other Baselines that can be applied with a single click to any grouping of computers.
Create New Analysis...	Create a custom analysis, based on the specified properties of the BigFix Client computers.
Create New Automatic Computer Group...	Create an automatically defined grouping of computers, based on various client properties, such as name, CPU, IP Address, and so on.
Create New Manual Computer Group...	Manually create a computer group which you can populate from any computer list.
Add External Site	Start a new Subscription to a Fixlet site. This command opens a browser window for you to select a masthead file, typically with an extension of .efxm.

Masthead...	
Add Files to Site...	Add text, utility, domain, or dashboard files to the sites you author.
Add LDAP Directory...	Add an existing Lightweight Directory Access Protocol (LDAP) or Active Directory (AD) domain to the Console.
Create Custom Site...	Create a custom site containing your own content. You can create custom Fixlets, Tasks, Analyses, and so on.
Create Repository Site...	Starting from 11.0.7, you can create an external repository site.
Create Operator...	Create a local operator with password protection.
Add LDAP Operator...	Add a Console operator from the list of users on your existing LDAP Server.
Create Role...	Create a Role with associated permissions over computers and sites. Roles can also include LDAP Groups, allowing you to add multiple potential users at once.
Create Custom Filter...	Create a named filter that allows you to find specific custom content, based on various properties. The objects available to filter include Fixlet messages, Tasks, Analyses, Computers, and more.

Manage Properties...	Create and manage properties to retrieve from your Clients, using Relevance clauses. These properties are included in the column headers on client listings. There is a default set of properties, but you can add or delete them. Properties are used to filter or select subsets of Clients for Fixlet action deployment.
Manage Tokens...	Starting from 11.0.6, you can create and manage tokens to be used when authenticating to REST APIs, IEM CLI and BigFix Explorer.
View Recent Comments	View the list of comments made by the Console operators, sorted from most recent to oldest. This list includes all comments, regardless of the underlying object.
Launch Web Reports...	Provide access to data reports, which are collected from various BigFix Servers and aggregated into a set of HTML reports summarizing the history and status of Fixlet messages and actions across extended networks of computers.

Help Menu

The **Help Menu** offers the following commands.

Contents	Provide integrated help.
Visit support.bigfix.com	Launch a browser to view the support site.
Console Improvement Program	Participate in the Console Improvement Program to enhance the BigFix Console. This program allows us to automatically collect anonymous usage metrics and statistics during your Console working session.

About BigFix Console...	Display the version number of the program, along with a URL for support.

Chapter 15. The Dialogs

About the BigFix Console

The **About** dialog displays the version of the BigFix Console.

It also includes a URL for technical support.

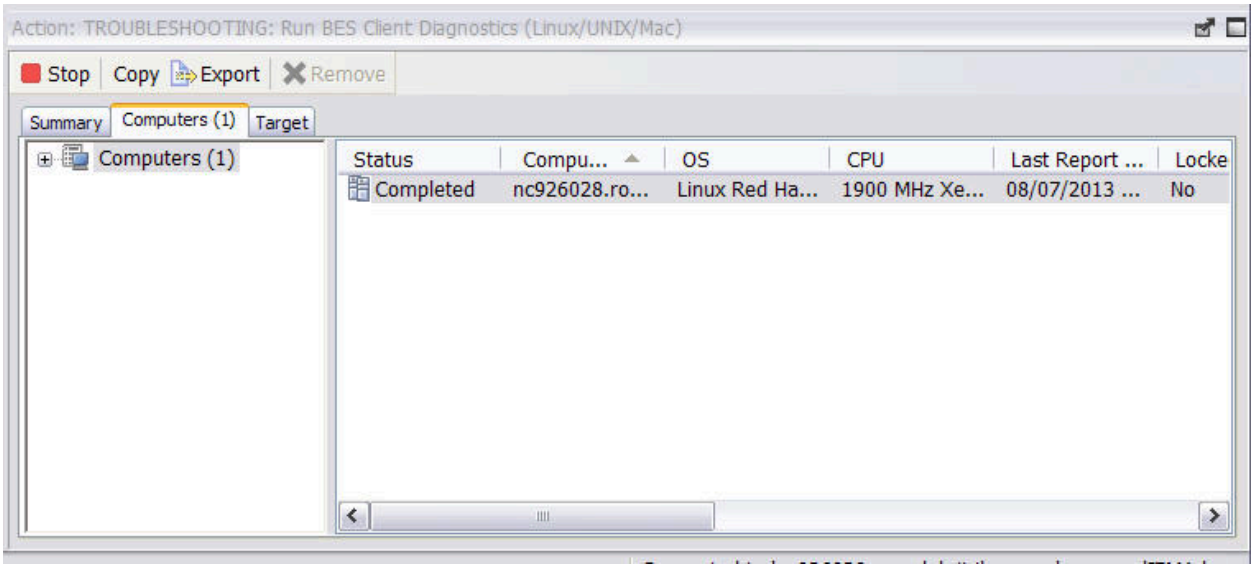


This dialog is available by selecting:

- **Help > About BigFix Console**

Action: Computers

The **Computers** tab of the **Action** document shows the number of computers affected by the specified action along with the current status of each.



To view this information for a specific action:

1. Click the **Action** icon in the navigation tree.
2. Select that specific action in the List Panel. Information about the action is displayed in the Work Area.
3. Select the **Computers** tab in the Work Area.

In the **Computers** tab there is a navigation tree on the left where you see the number of computers affected by the specified action and you can filter list by narrowing down for easier analysis. A filtered list shows the computers targeted by the action, along with the current status of each. The list can be sorted by clicking the appropriate header. You can view more detailed information about a targeted computer by double-clicking the computer in the list.

The **Targets** tab shows the set of computers that was originally targeted by the action, the **Computers** tab, instead, shows:

- The status of the action on each of the selected targets, regardless of whether they responded or not, if the action was originally targeted to specific computers.
- The status of the action on the target that actually responded, if the action was originally targeted by properties.



Note: The **Computers** tab is renamed **Reported Computers** tab if the targeting method selected in the **Target** tab of the **Take Action** dialog was set to **Dynamically targeted by properties**.

The deployed action progresses through a series of well-defined stages on a given computer. These are the statuses of the action on a computers across the various stages:

Cancelled

The user has canceled the action.

Constrained

The action has been constrained by a Relevance statement set in the **Execution** tab of the **Take Action** dialog.

Download Failed

The action failed to complete the download.

Error

The action has resulted in an error.

Evaluating

The action is still evaluating its relevance.

Failed

The action has failed to run correctly.

Fixed

The action has completed, resolving the issue.

Invalid Signature

The action cannot run due to an invalid signature.

Locked

The computer is locked and cannot run the action.

Not Relevant

The action is not relevant on this client.

Not Reported

The action has not reported its success or failure.

Offers Disabled

Offers cannot be presented on the specified client, so the action will never run.

Pending Downloads

The action is waiting for downloads.

Pending Login

The action is waiting for the user to log in for a user-assisted action.

Pending Message

The action is waiting for the user to accept the action message.

Pending Offer Acceptance

The action is waiting for the user to accept the offer.

Pending Restart

The action is waiting for a client computer restart.

Postponed

The action has been postponed by the client.

Running

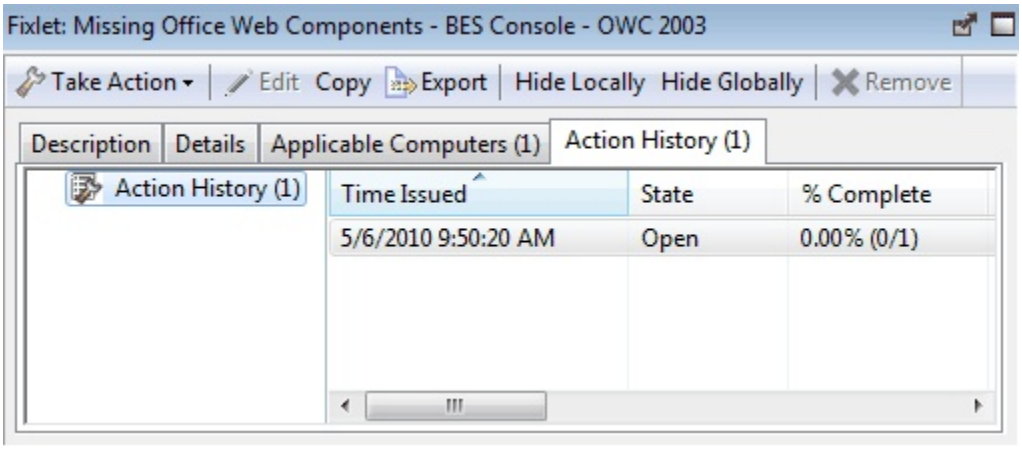
The action is currently running.

Waiting

The action is waiting for a user response.

Action History Tab

The **Action History** tab lists the deployment history of the actions associated with the selected **Fixlet**, **Task**, or **Baseline** document.

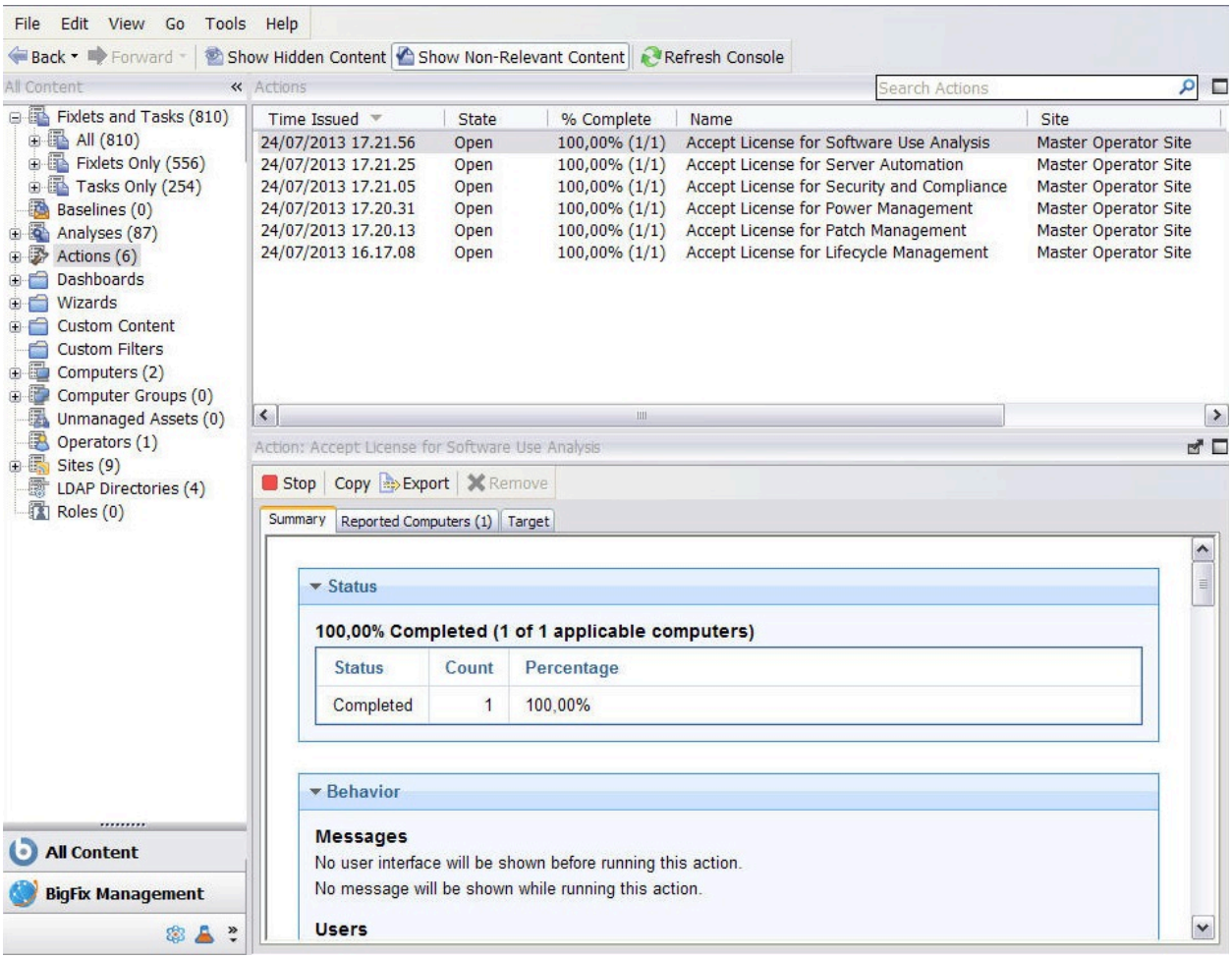


To see something in this dialog, you must have issued an Action. The Action History list can be sorted by clicking the headers, which include the **ID, Time Issued, State, % Complete** (based on the number of Clients reporting success), **Name, Site, Issued By**, and **Type**.

This dialog is available by selecting a Fixlet, Task, or Baseline icon from the Domain Panel navigation tree, clicking an item from the List Panel, and clicking the **Action History** tab in the Work Area below the list.

Action List and Document

This is the main panel about actions. It displays in the List Panel all the actions that were deployed in the content site and shows in the Work Area the **Action document** containing the details of the action highlighted in the list.



At the top of the Action document you find a description of the action. Below that is a toolbar presenting you with options to **Stop, Copy, Export,** or **Remove** the action. For more information about these commands, see Running commands on actions (on page 44).

There are three tabs in an Action document. They are:

- **Summary:** An HTML display of various action attributes, including Status, Behavior (Message, Users, Execution, Post-Action), Relevance, Success Criteria, and Action Script. At the bottom of the page is a text box for entering a comment. For more information about this tab and its content, see Action: Summary *(on page 186)*.
- **Computers:** It shows the number and the list of relevant computers affected by the specified action along with the current status of the action on each of them. A filter in the left panel allows you to narrow down the list of computers in the right panel.

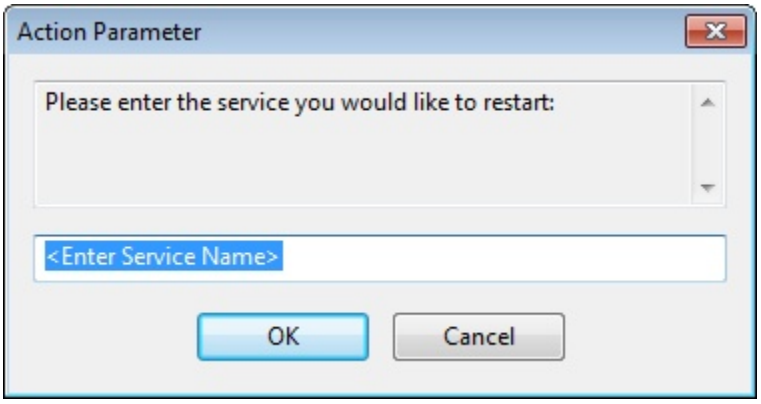
For more information about this tab and its content, see Action: Computers *(on page 173)*.

- **Target:** Shows what subset of computers was originally targeted by the action. For more information about this tab and its content, see Action: Target *(on page 189)*.

Action Parameter

This dialog box makes a request for extra information required by certain Actions or group of Actions before execution.

Typically there is a prompt with a text box for you to supply a parameter.

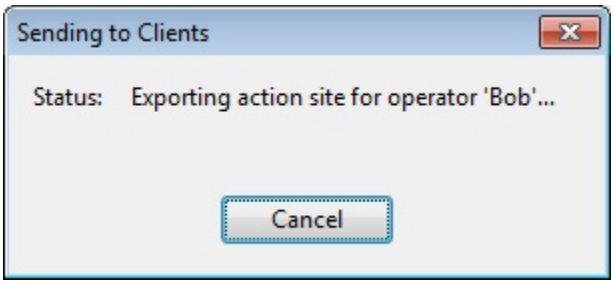


Click **OK** to continue the Action deployment. This typically opens the Take Action dialog, where you can further specify deployment options.

An **Action Parameter** dialog is opened only when you click an Action link in a Fixlet that requires extra information before final targeting.

Action Progress Report

This dialog box shows the progress of an action as it is applied across the Fixlet network.



First, it shows the progress of any downloads (patches, updates, and so on.). If there are files to download, it displays the name of the downloaded file, the total number of bytes, the current amount downloaded, the transfer rate, and the estimated time to completion.

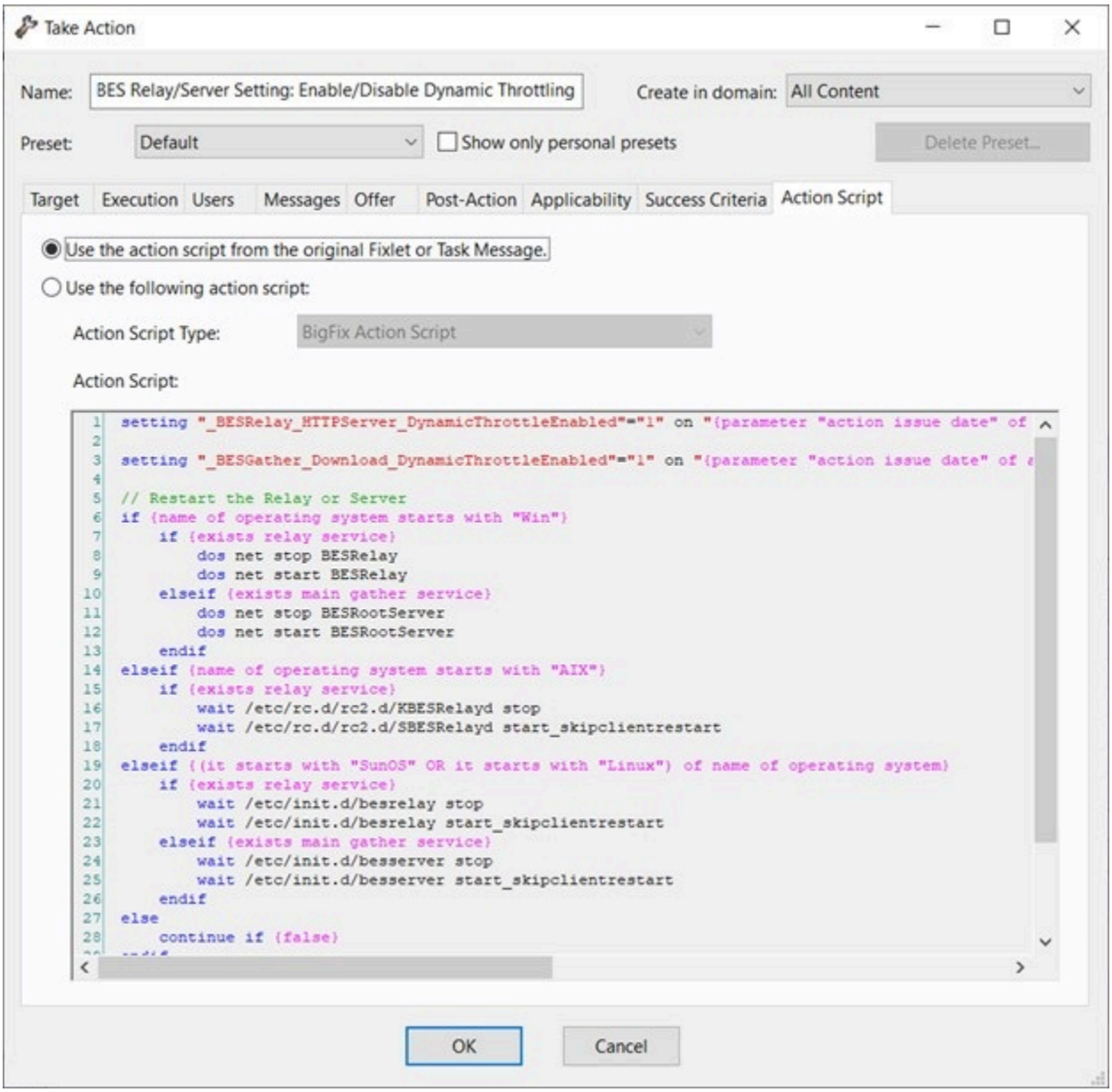
The Actions can go through several states as they are collected, evaluated, and run by the clients. These states include:

- **Running:** The Action is currently running.
- **Evaluating:** The Action is still evaluating its relevance.
- **Failed:** The Action has failed to run correctly.
- **Cancelled:** The user has canceled the Action.
- **Download Failed:** The Action failed to complete the download.
- **Locked:** The computer is locked and cannot run the action.
- **Offers Disabled:** Offers cannot be presented on the specified client, so the Action will never run.
- **Waiting:** The Action is waiting for a user response.
- **Pending Downloads:** The Action is waiting for downloads.
- **Pending Restart:** The Action is waiting for a restart from the Client computer.
- **Pending Message:** The Action is waiting for the user to accept the Action message.
- **Pending Login:** The Action is waiting for the user to log in for a user-assisted Action.
- **Pending Offer Acceptance:** The Action is waiting for the user to accept the offer.
- **Constrained:** The Action has been constrained by a Relevance statement set in the Execution tab of the Take Action Dialog.
- **Postponed:** The Action has been postponed by the Client.
- **Invalid Signature:** The Action cannot run due to an invalid signature.
- **Not Relevant:** The Action is not relevant on this Client.

- **Not Reported:** The Action has not reported its success or failure.
- **Error:** The Action has resulted in an error.
- **Fixed:** The Action has completed, resolving the issue.

Action Script Tab

In general you are recommended to use the action script provided with the Fixlet or task, however, sometime it might be useful to align the action script to your environment and business needs. The **Action Script** tab of the **Take Action** dialog allows you to modify the action script.



To access this tab:

1. Select a Fixlet message or a task from any list.
2. Click an action button.
3. In the **Take Action** dialog, select the **Action Script** tab.

There are two buttons in this dialog:

Use the action script from the original Fixlet or task message

This is the default for most Fixlet actions, and is the recommended option.

Use the following action script

You can select one of the following options and either modify the existing script or enter a new script in the text area. Select the type of action script that you want to use for this script:

BigFix Action Script

This is the BigFix standard scripting language for actions. For more information about the action language, see https://developer.bigfix.com/action-script/the *Action Script Language* section in the BigFix Developer web site (*https://developer.bigfix.com*).

AppleScript

This is Apple's scripting language for controlling computer resources.

sh

The action is a shell script to be run by a Linux or a UNIX or a bsd shell.

PowerShell

Starting from version 10.0.4, BigFix gives you the possibility to run PowerShell scripts too.

You can run on a selected Windows Client the script that you write in the **Action Script** text box. The script runs on the PowerShell installed by default by your Windows operating system in the `C:\Windows\System32\WindowsPowerShell\v1.0` directory, if available, or in `C:\Windows\SysWOW64\WindowsPowerShell\v1.0`.

The script is executed by default using the **-ExecutionPolicy Bypass** option. To avoid using this option, you can use the `_BESClient_PowerShell_DisableExecPolicyBypass` client

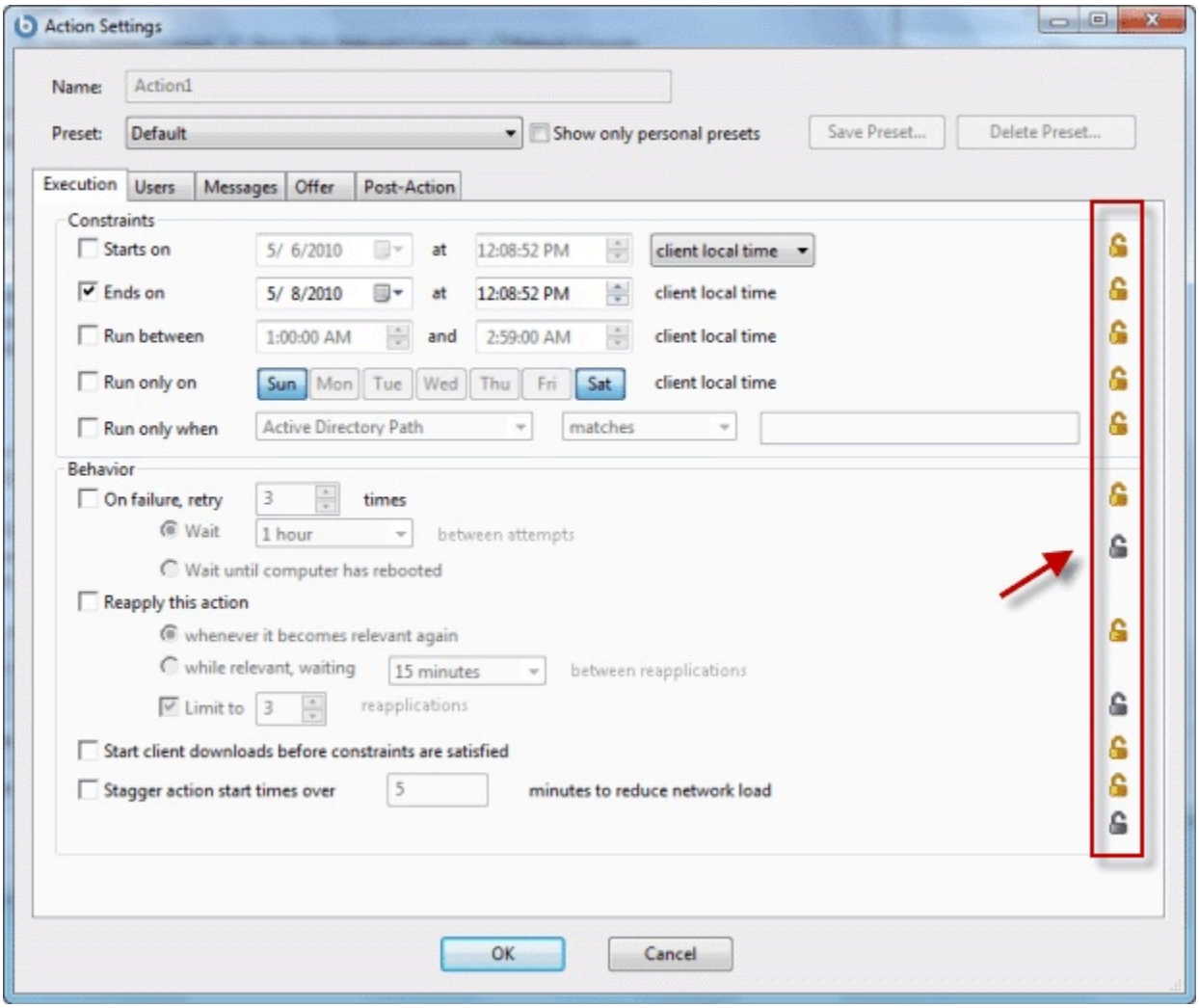
setting described in the Miscellaneous section of the List of settings and detailed descriptions page.

Since they are executed in hidden mode, PowerShell scripts requiring user interaction or showing pop-up windows or dialog boxes are not supported and might cause the action to remain in running status or the script to display an error in the log file.

Note: By default, actions cannot be undone. Make sure to test your action on a small scale before you deploy it in your entire network.

Action Settings

The **Action Settings** dialog lets you apply lockable Action Settings to a new or customized Fixlet message, Task, or Baseline.



Using the lock icons to the right of the screen, you can lock the individual items under each of the tabs of this dialog to force the action to be run with the selected constraints.

- At the top of this dialog is the **Name** of the Action. Depending on the context it might be editable, if you want to rename it or add extra information to it.

Below the Name box are some buttons that allow you to save or re-use your Action values:

- **Preset:** This is a pull-down menu with the names of your existing presets, if any. Click one to automatically fill out your Action settings.
- **Show only personal presets:** Check this box to limit the presets to your own personal presets.
- **Save Preset:** After creating custom settings for an Action, you can save them for later re-use.
- **Delete Preset:** Select a preset and then click this button to delete it.

This body of the dialog contains several tabs, including:

- **Execution:** This tab allows you to set constraints on the Action, including starting and ending dates and run windows. You can also set up retry counts (in case the Action fails or reverts) and allow the deployment to be distributed over a period of time to minimize the network load.
- **Users:** Allows you to specify whether or not you require a logged-on user (or specified group of users) to be present before running the Action.
- **Messages:** Specify informative messages to be displayed on the targeted Clients, along with options for user interaction.
- **Offer:** This tab allows you to convert this Action into an Offer, which triggers the display of an HTML user interface on select Clients. The user has the option to select these Offers from a list.
- **Post-Action:** Specify a follow-up behavior for the Action, such as a restart or shutdown, including appropriate warning messages.

To lock or unlock any of the items under these tabs, simply click the lock icons to the right.

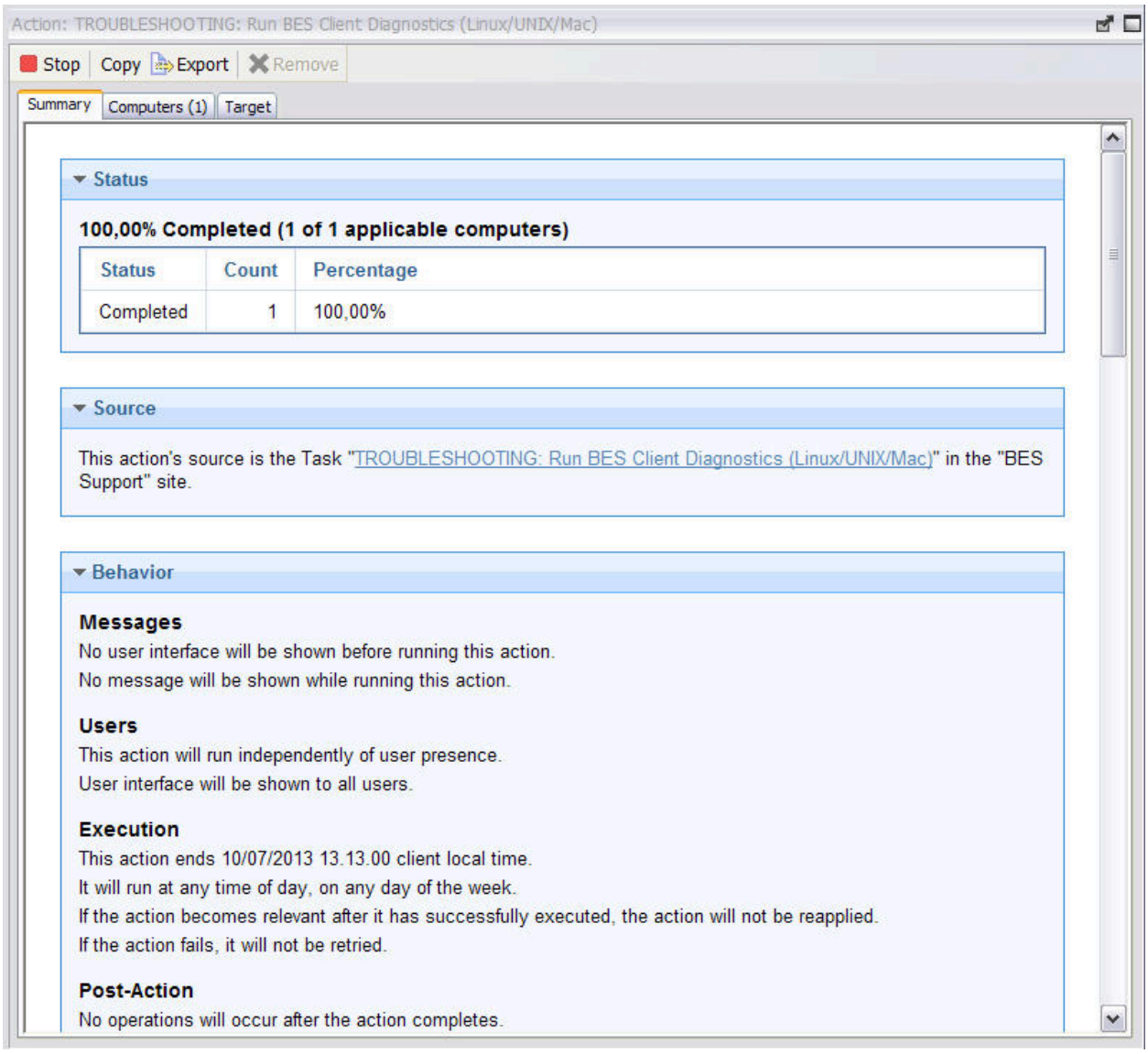
When you have finished specifying your Action settings, click **OK**. Before the Console can issue the Action, you must enter your password . When you do, a progress dialog opens to keep you informed about the deployment.

This dialog is available when you create or customize a Fixlet message, Task, or Baseline. For Tasks and Fixlet messages, select the **Actions** tab, check the box next to **Include action settings locks,** and click the **Edit** button to see this dialog. When creating or customizing a

Baseline, click the **Components** tab, check the box next to **Use custom action settings,** and click the **set action settings** link.

Action: Summary

The **Summary** tab of the **Action** document shows various attributes of the selected action. These settings were created when the action was initially specified.



To view this information for a specific action:

1. Click the **Action** icon in the navigation tree.
2. Select that specific action from the List Panel. Information about the action is displayed in the Work Area.
3. In the Work Area, click the **Summary** tab.

In the Summary tab you see the following information:

Status

It shows the number of applicable targets grouped by completion status of the action. This status can be **not reported**, or are **Waiting**, or **Running**, or **Completed**.

Source

If this action was originated by a Fixlet, this section contains a link to the Fixlet and the name of the content site involved.

Behavior

It displays action settings including:

Messages

Describes any messages to be displayed either before or during the execution of the specified action.

Users

Lists the requirements for user intervention in the action. Allows a user interface to be presented to select user groups.

Execution

Contains information about the execution of the action, including ending time, reapplication, and what happens if the action fails.

Post-Action

Provides information about what happens, including restarting or shutting down after the application of the action.

Details

This section displays information about the action run and the relevance expressions and the action scripts it used:

ID

The ID of the action. This is the unique identifier for that action run.

Domain

The name of the domain hosting this action.

Type

Either single or multiple action, depending on how the action was issued. For more details, see Taking actions *(on page 33)*.

State

The overall state of the action as it deploys. An action opened cannot be removed unless it is stopped or expires.These are the possible states:

open

The action is active on one or more computers. It remains open until its expiration date elapses, or an operator stops it. You cannot remove an action that is open.

stopped

The action was stopped by an operator. It remains stopped until its expiration date elapses or it is removed.

expired

The action has passed its expiration date. When an action expires, the targets stop evaluating. Hence, for the expired actions, the target status is

a snapshot of last status reported by clients at the expiration time.

Issued

The date of issuance and the operator who issued the action.

Relevance

This is a full listing of the relevance statement that determines the targeting of this action. For information about the Relevance language, see https://developer.bigfix.com/relevance/the *Relevance Language* section in the BigFix Developer web site (*https://developer.bigfix.com*).

Action Script

This is a listing of the script that is run if this action is relevant to the client computer. For information about the action language, see https://developer.bigfix.com/action-script/the *Action Script Language* section in the BigFix Developer web site (*https://developer.bigfix.com*).

Success Criteria

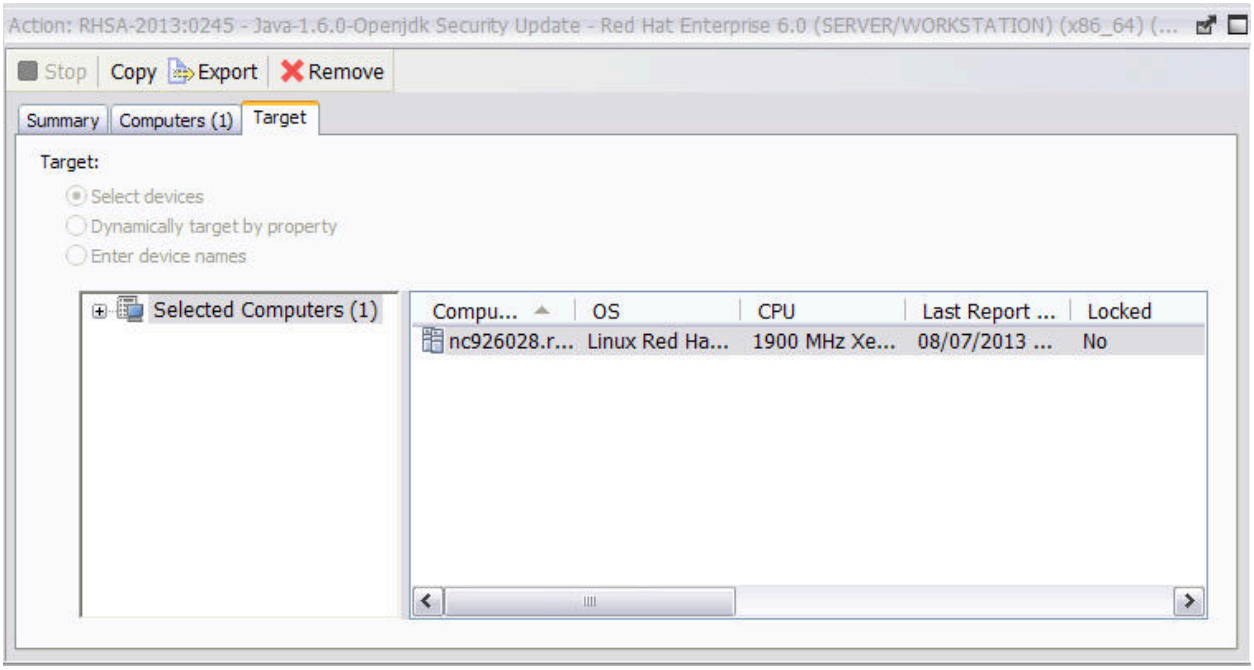
The criteria used to determine the successful conclusion of the action.

Comments

This is a text box that allows you to view or attach a comment to the action. This messages can be seen by all operators having access to the content site that the action belongs to.

Action: Target

The **Target** tab of the **Action** document presents a read-only display of the computers targeted by the specified action.



To view this information for a specific action:

1. Click the **Action** icon in the navigation tree.
2. Select that specific action in the List Panel. Information about the action is displayed in the Work Area.
3. Select the **Targets** tab in the Work Area.

The dialog shows which computers are currently targeted by the Action. The original targeting was set when the action was deployed in the **Target** tab of the Take action *(on page 332)* dialog. Depending on the targeting method, indicated by three read-only radio buttons at the top of this dialog, the this list of computers can be static or dynamic.

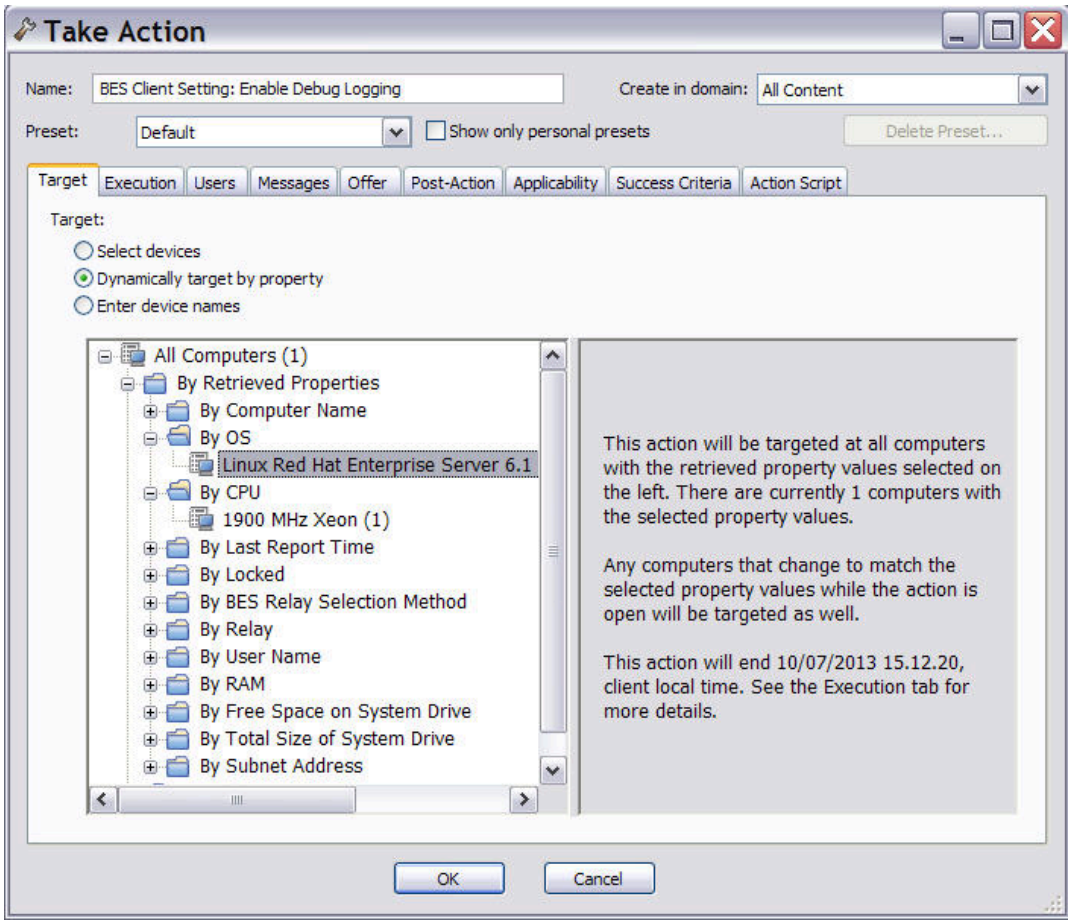
Note: You must select at least one target computer (by name or property) in the **Select devices** view, and at least one property in the **Dynamically target by property** view.

Selected devices

If this option was specified, the computers in the list are those relevant to the action, those that satisfied the relevance expression set in the **Applicability** tab of the Take action *(on page 332)* dialog. This is the default behavior.

Dynamically targeted by properties

If this option was specified, the action selects any BigFix Client computer with the retrieved property specified, for example any computer with Linux Red Hat Enterprise Server 6.1 installed.



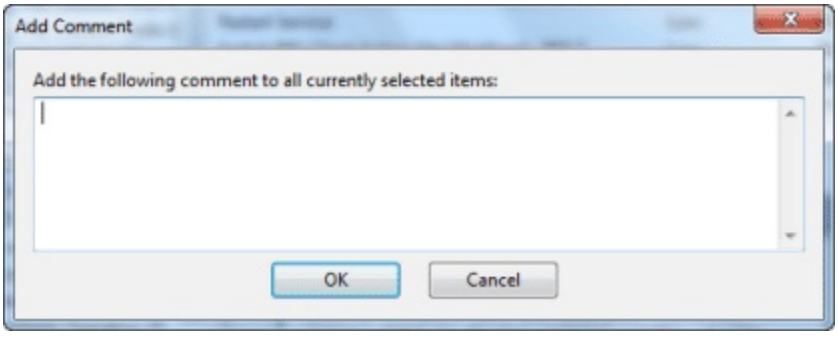
This search runs when the Take action is triggered, then it is evaluated again on timely basis until the action expires. The action expiration time was set in the **Execution** tab when the Take action was triggered. If new computers satisfying the property are found, they are added to the list of targets and the action is run on them too. when this targeting method is selected, The **Computers** tab is renamed **Reported Computers**.

Enter device names

Use this option to specify a list of target computers for this action. Enter a list of computers, where each computer name should be separated by a new line.

Add Comment

The **Add Comment** dialog lets you attach an explanatory comment to Fixlet messages, Tasks, Baselines, Actions, Computers, Computer Groups, and Analyses.

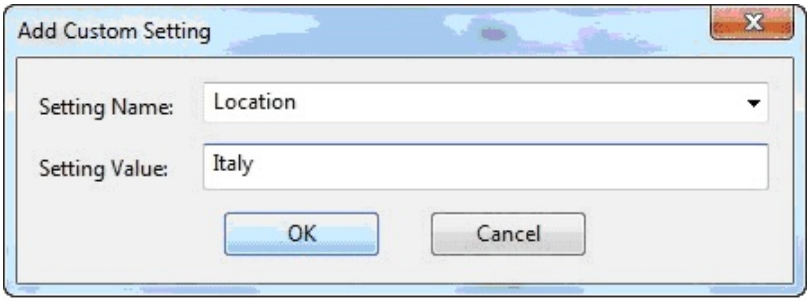


The comment you enter here is displayed in the Description or Summary tab when you open one of the associated items in the workspace.

This dialog is available by right-clicking an item from the List Panel and selecting **Add Comment** from the context menu.

Add Custom Setting

This dialog box lets you create a custom Name/Value setting that applies to the selected computer.



Type a name for the variable in the first input box, and type the value of the variable in the second box. This can be useful for naming or otherwise attaching text or numeric values to a computer or set of computers.

Note: Setting names on BigFix V9.5 UNIX and linux agents cannot contain any of these three characters:

```
"]" (right square bracket), "\" (backslash), "=" (equals)
```

If you use any of these characters in a setting name, the Add Setting will appear to succeed but the setting will be either missing or corrupt. It is also possible that neighboring settings might be affected adversely.

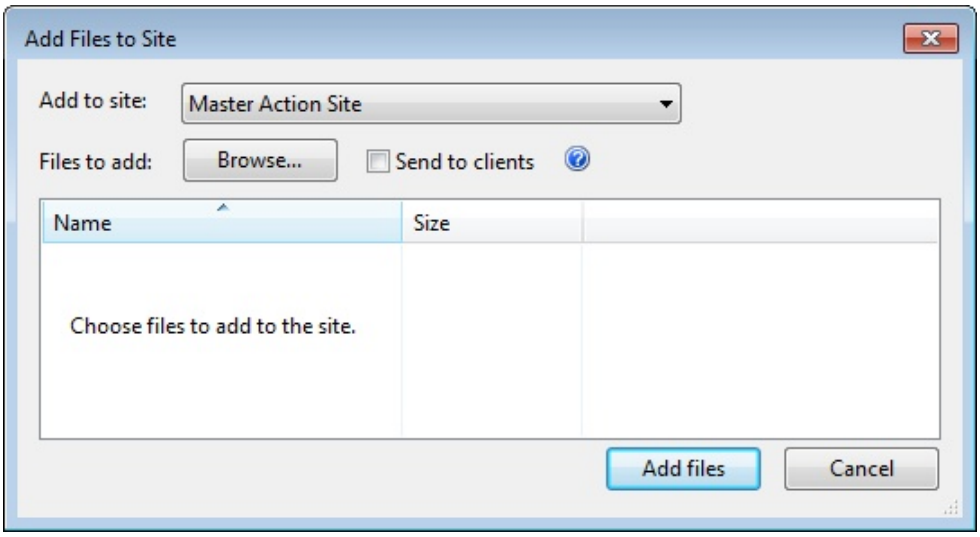
If settings containing these characters exist on a BigFix V9.2 agent, they will be missing or corrupt when upgrading to a BigFix V9.5 agent.

This dialog is available from the Edit Computer Settings dialog. Right-click a computer from any listing, select **Edit Computer Settings** from the pop-up menu, and then click the **Add** button.

Add Files to Site

This dialog lets you add files to any site that you can author.

These can be anything from simple text files to functional dashboards.



Select a site from the **Add to site** pulldown, **Browse** for the files to add, and then click **Add files**.

To distribute the files to every client, click the **Send to clients** box.

For more information, see **Adding Files to Sites**.

This dialog is available by selecting **Tools > Add Files to Site...**

Add LDAP User

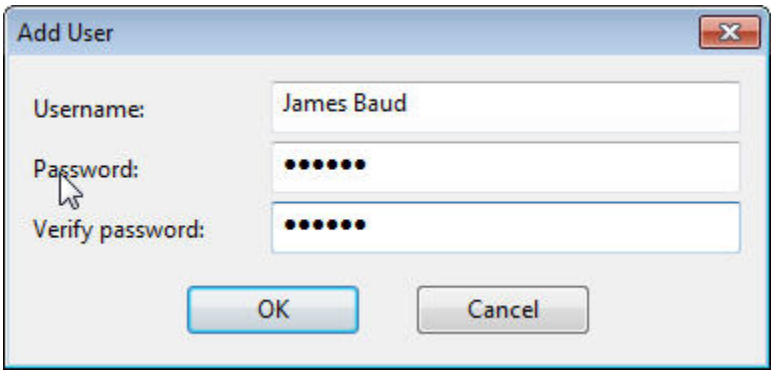
You can add LDAP users through the Console.

Select or search for the user's name. Click **Add**.

This dialog is presented when you select **Tools > Add LDAP Operator**.

Add User

Local users can be added through the Console with password protection.

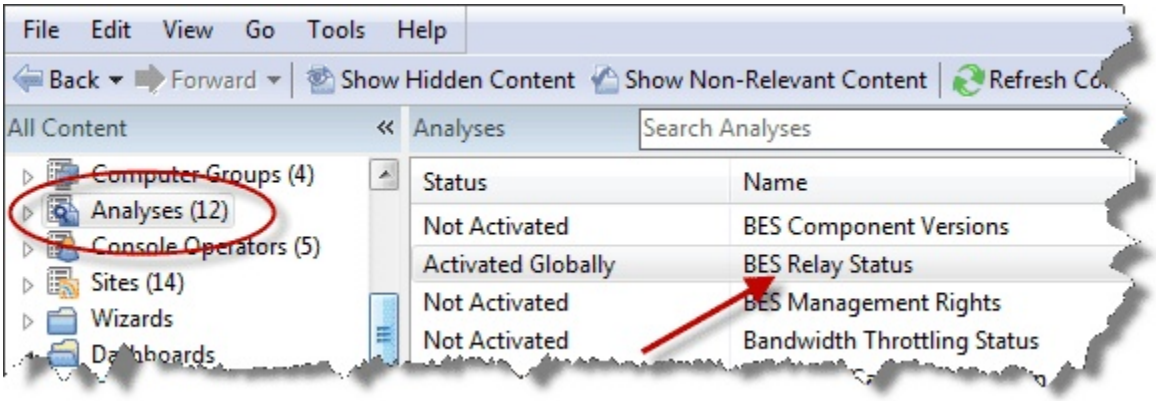


Enter the user's name and password plus verification. Click OK.

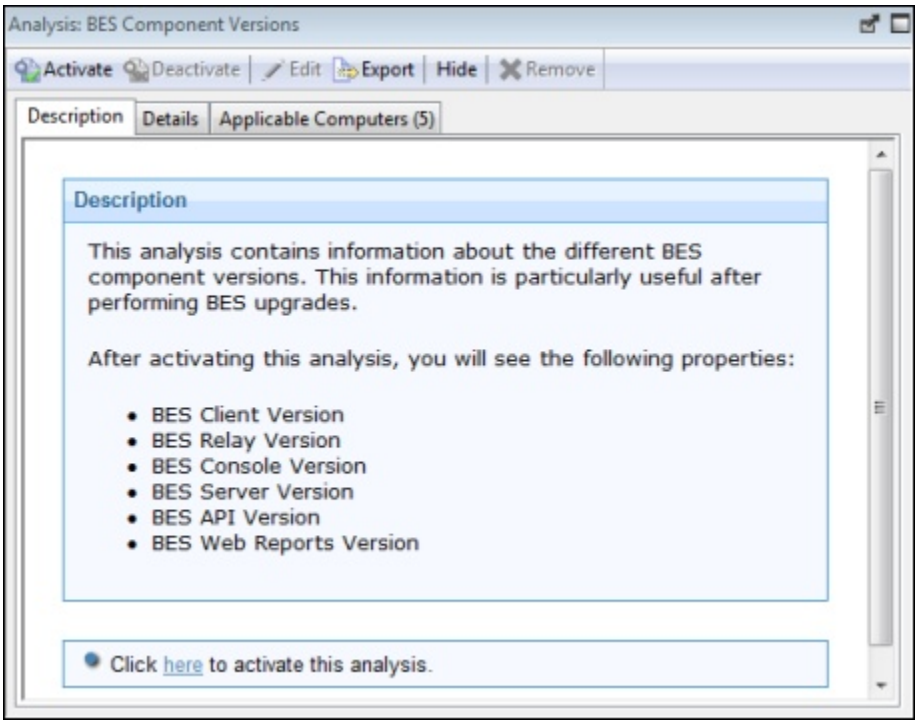
This dialog is presented when you select **Tools > Create Operator**.

Analysis List and Document

A list of Analyses is displayed when you click **Analyses**, or any of its child nodes, from the Domain Panel navigation tree.



An **Analysis document** is displayed in the Work Area of the Console when you click an item from this list.



At the top of the Analysis document is the name of the analysis. There is a toolbar at the top of the window, with the following choices:

- **Activate:** Start the specified Analysis. This option is only available if the Analysis is currently deactivated.
- **Deactivate:** Stop the specified Analysis. This option is only available if the Analysis is currently activated.
- **Edit:** Make changes to this Analysis. This option is only available if this is a custom Analysis.
- **Export:** Save a copy of this Analysis to import it into a different Console or deployment or to edit it in an external editor.
- **Hide Globally:** Hide this Analysis from all Consoles.
- **Hide Locally:** Hide this Analysis from the local Console only.
- **Remove:** Delete the Analysis. This option is only available for custom Analyses.

There are several tabs in an Analysis document. They include:

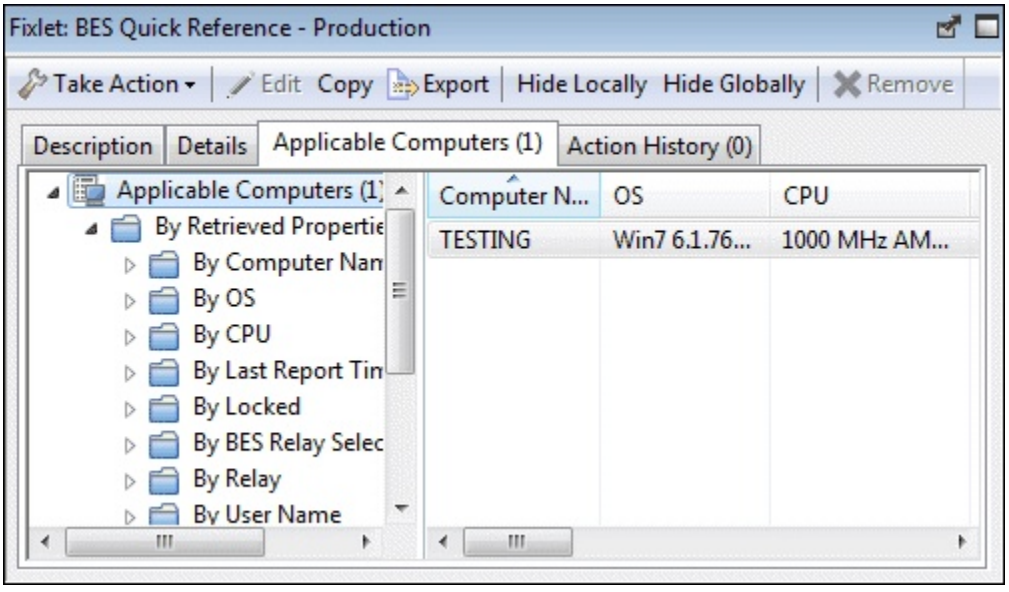
- **Description:** An HTML page describing the Analysis, along with a link to activate or deactivate the Analysis.
- **Details:** An HTML page listing the various Analysis attributes, including Properties and Relevance. At the bottom of the page is a text box for entering a Comment attached to the Analysis.
- **Results:** A dialog displaying the results of the Analysis. This tab is only visible for an activated Analysis.
- **Applicable Computers:** A list of the Clients where this Analysis is applicable. This is a typical filter/list panel for computers; click a filter in the left panel to narrow down the list of computers in the right panel.

To display an Analysis list, click the **Analyses** icon (or any of its child nodes) in the Domain Panel navigation tree.

An **Analysis document** is opened whenever you open an item in an Analysis list.

Applicable Computers Tab

The **Applicable Computers** tab displays all the networked computers that are affected by the currently selected **Fixlet**, **Task**, **Analysis,** or **Baseline** object.



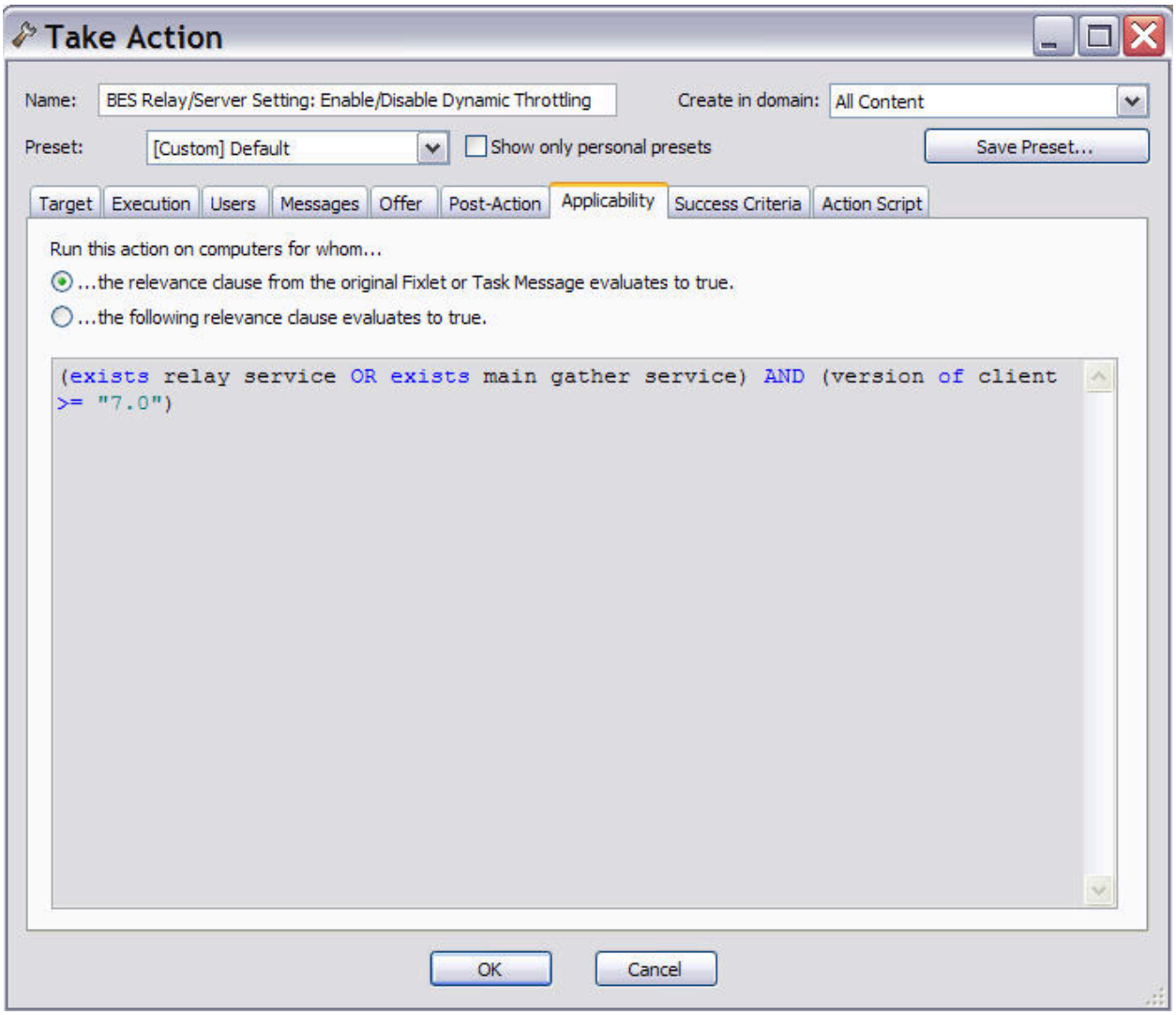
This is a /list view with a filter panel on the left, allowing you to narrow down the displayed list of computers. To do this, open a retrieved property or group from the left panel and select a value to filter the list.

Like other lists in the Console, you can sort it by clicking the column headers. You can add or remove header properties by right-clicking in the header row.

This dialog is available by opening a Fixlet, Task, Analysis, or Baseline from the List Panel and clicking the **Applicable Computers** tab in the Work Area below.

Applicability tab

In the **Applicability** tab you can specify the criteria to use to judge the relevance of a Fixlet action.



This tab is available from several different dialogs:

- Take action *(on page 332)*
- Take multiple actions *(on page 335)*
- Edit Computer Settings *(on page 261)*

It is strongly recommended that you use the original Relevance expression, but you might want to customize it to better suit your needs. Select:

...the relevance clause from the original Fixlet or Task Message evaluates to true.

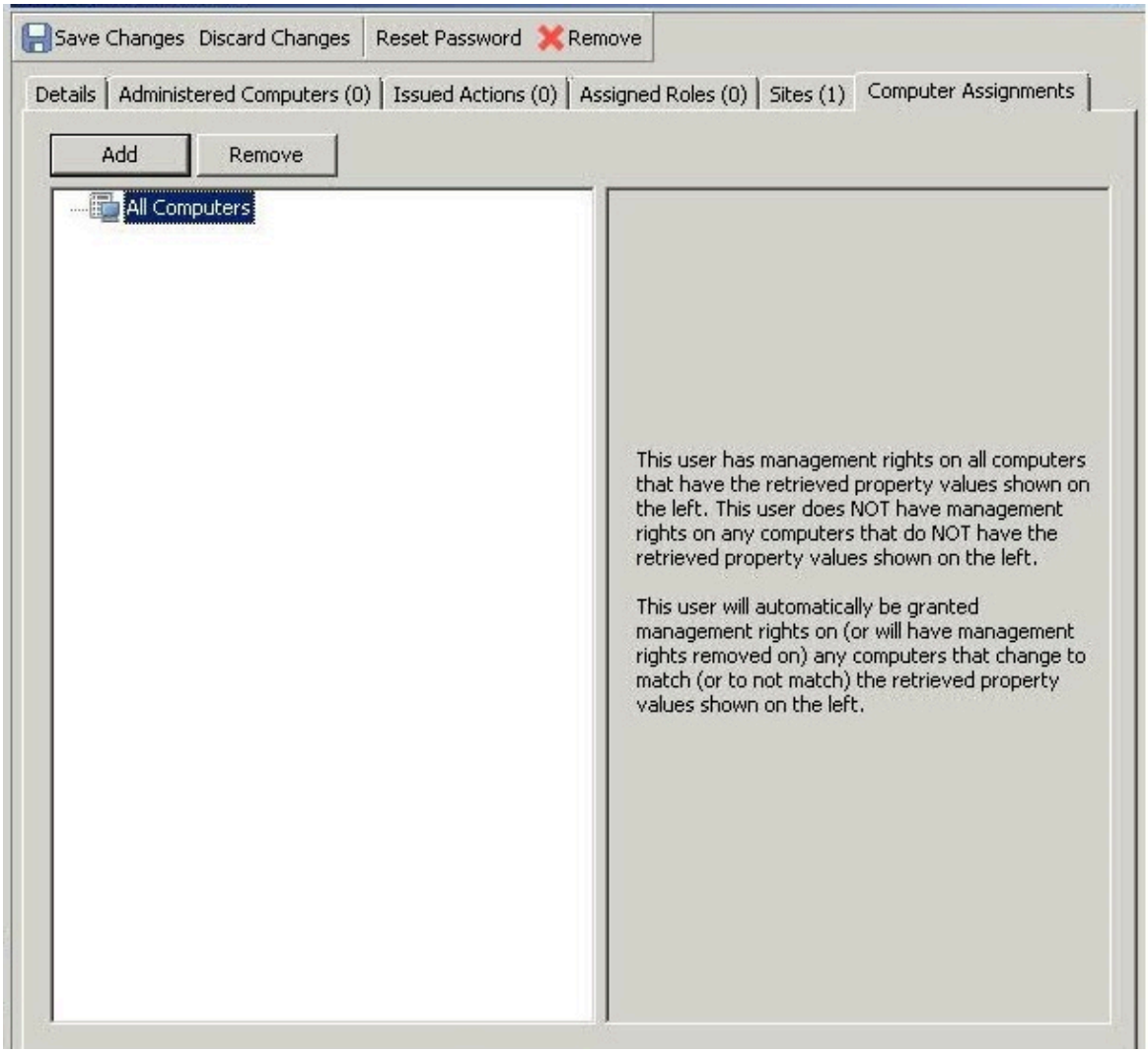
To confirm the relevance expression set in the default action.

...the following relevance clause evaluates to true.

To modify the existing relevance expression or to specify a new relevance expression to suite your needs.

Assign User Management Rights

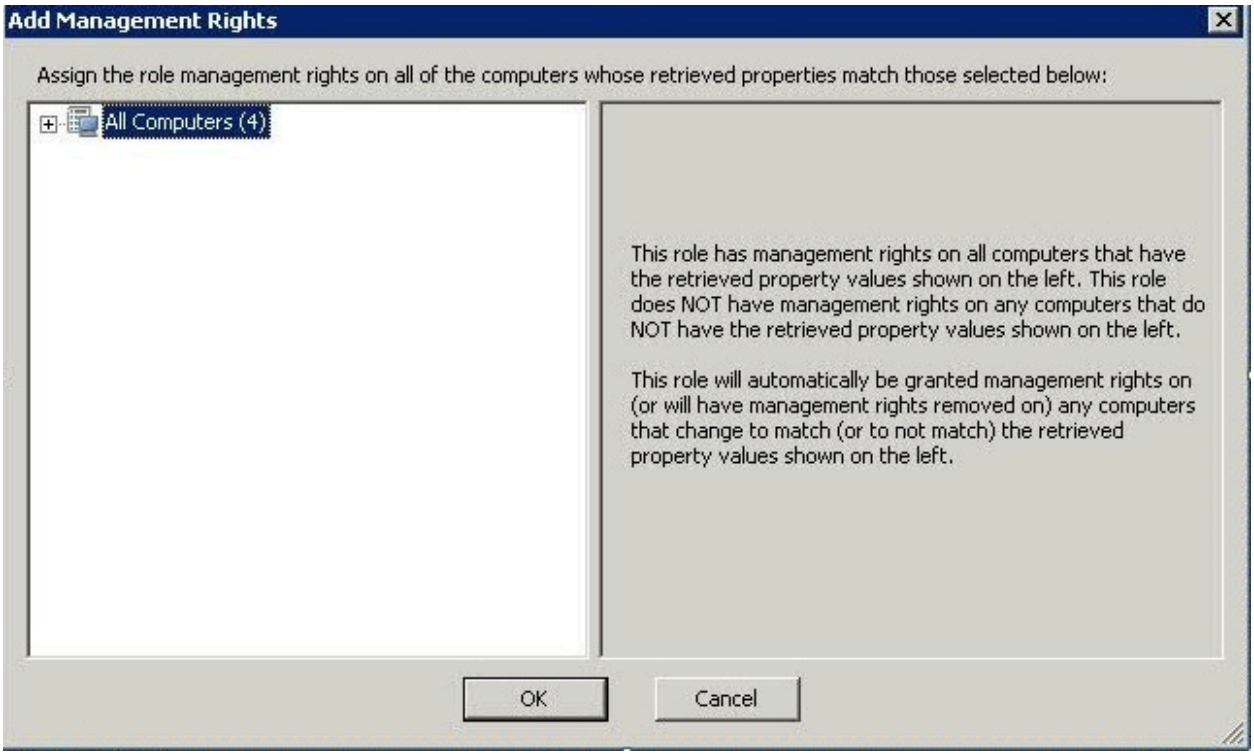
The **Computer Assignments** dialog lets you choose which computers an operator can manage.



This dialog displays the current set of computers that can be managed by the selected Console operator and lets you add or delete computers from that set. It is available by selecting **NMO Operators** from the Domain Panel navigation tree, selecting **Computer Assignments**, and clicking **Add** or **Remove** to open the Management Rights dialog. You must have logged in with Administrator rights to view this tab. There are two buttons in this dialog:

- **Add:** Add new computers to the set of computers that the operator can manage. This opens a standard filter/list box of the computers on your network. Use the values of the retrieved properties to filter down the group of computers for this operator. The use of retrieved properties, including custom properties, makes it simple to group computers. For example, you might want to group computers by their operating system or cpu type. Or you might create a special computer setting, like department or location, and use that to group management rights to the selected operator. Or there might be computers using particular applications that you want to assign to specialists in your organization.
- **Delete:** This button lets you remove computers from the set of computers that the operator can manage. It opens a dialog that lets you choose which retrieved property filters you want to delete. (If a single filter was defining the rights, when you select Delete, it does so without opening this dialog.)

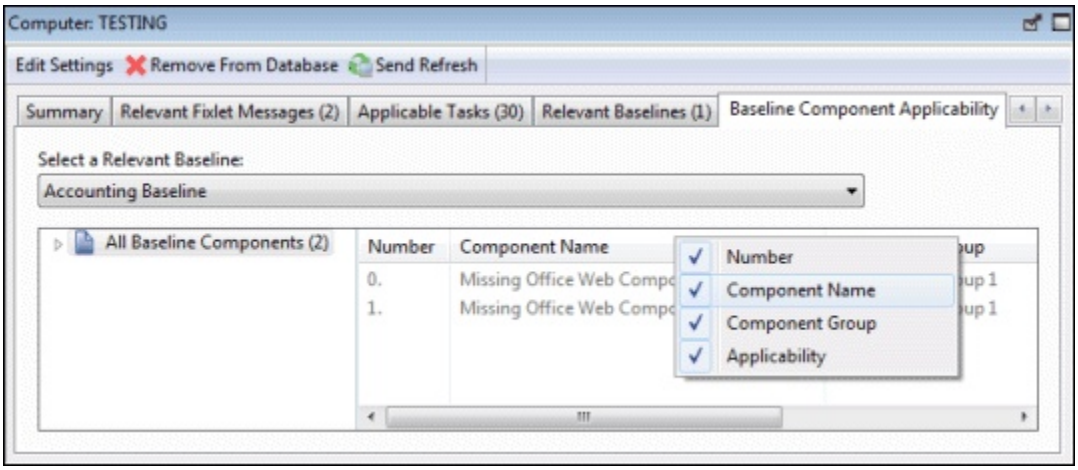
After clicking **Add** or **Delete**, you open the Management Rights dialog.



In this dialog you can assign or revoke to the role, management rights on all of the computers whose properties match the selected ones. Click **OK** to accept, or **Cancel** to refuse.

Baseline Component Applicability Tab

The **Baseline Component Applicability** tab of the **Computer** document displays a list of Baseline Components that are applicable to the selected computer.



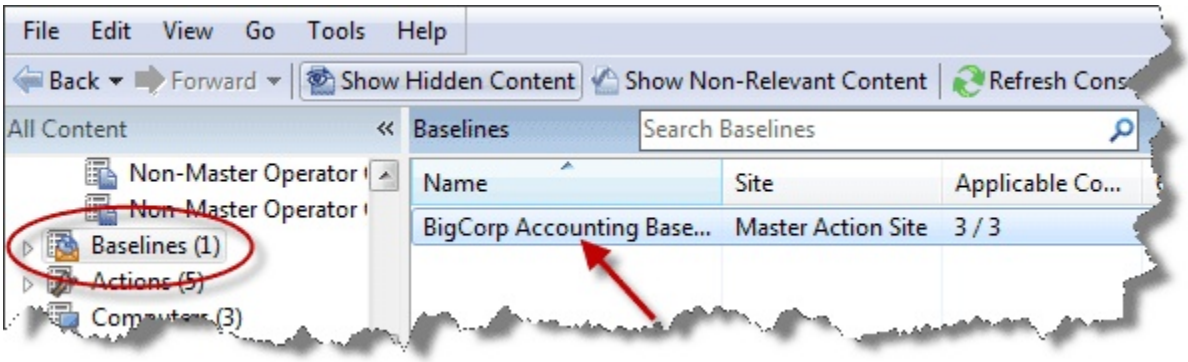
The components are listed by their number as defined in the Baseline, the name of the component, the group it is associated with, and whether or not it is relevant to the specified computer. Right-click the header to see what fields are available to display and sort by.

This dialog is available by selecting **Computers** from the Domain Panel navigation tree, clicking a computer from the List Panel, and clicking the **Baseline Component Applicability** tab.

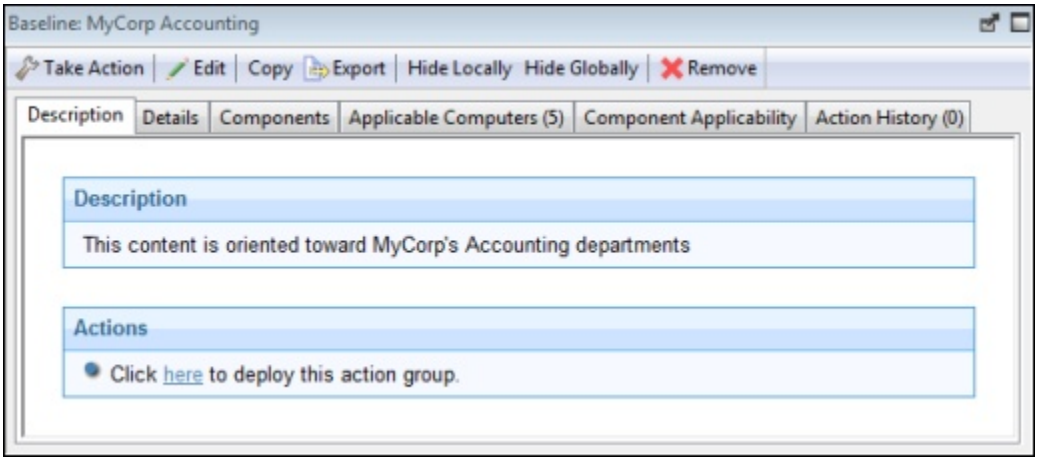
Note: If the relevance of a component of a baseline changes, the baseline goes out of synchronization and the message "Source Fixlet differs" is displayed close to the component in the BigFix Console. When it happens, the **Applicability** of the component of the baseline is unknown. The **Applicability** of a component is also unknown when the component belongs to a site to which the computer is not subscribed.

Baseline List and Document

A list of Baselines is displayed when you click **Baselines**, or any of its child nodes, from the Domain Panel navigation tree.



A **Baseline** document is displayed in the Work Area of the Console when you click an item from this list.



At the top of the Baseline document you find the Baseline name and a toolbar containing several tools:

- **Take Action:** Click this button to run the default Actions in this Baseline Group.
- **Edit:** Open the Edit Baseline dialog to make changes to this Baseline.
- **Copy:** Open the Create Baseline dialog to make and edit a copy of this Baseline.
- **Export:** Save this Baseline to import into another Console or deployment or to edit it in an external editor.
- **Hide Locally:** Hide this Baseline from the Local Console.

- **Hide Globally:** Hide this Baseline from all Consoles. It can be retrieved later by clicking the **Show Hidden Content** button on the Console toolbar.
- **Remove:** Delete this Baseline from the database.

There are several tabs in a Baseline document. They include:

- **Description:** An HTML page describing the Baseline and a set of Actions (implemented as links) that are designed to address the problem described.
- **Details:** An HTML page describing the Properties and Relevance clauses behind the Baseline. At the bottom of the page is a text box to enter a comment to attach to the Baseline.
- **Components:** Lists the Fixlet messages and Tasks that have been grouped into this Baseline.
- **Applicable Computers:** Shows which subset of computer components this Baseline targets. This tab also indicates the current count of Applicable Computers for instant viewing.
- **Component Applicability:** Lists the numbered components of the Baseline. In the Applicable Computer column, displays the number of computers where the Baseline component is applicable and following the slash, the total number of computers where the Baseline is applicable.
- **Action History:** Shows the history of any Actions that have been invoked by this Baseline. This tab also indicates the current count of executed Actions for easy viewing.

To display a Baseline list, click the **Baseline** icon (or any of its child nodes) in the Domain Panel navigation tree.

A **Baseline document** opens whenever you click an item in a Baseline list.

Change Password

The BigFix Console allows you to change the password if you have the correct authorization. Enter the current password, then enter and validate the new password.

Note: This dialog is not available if you are using NT Authentication.

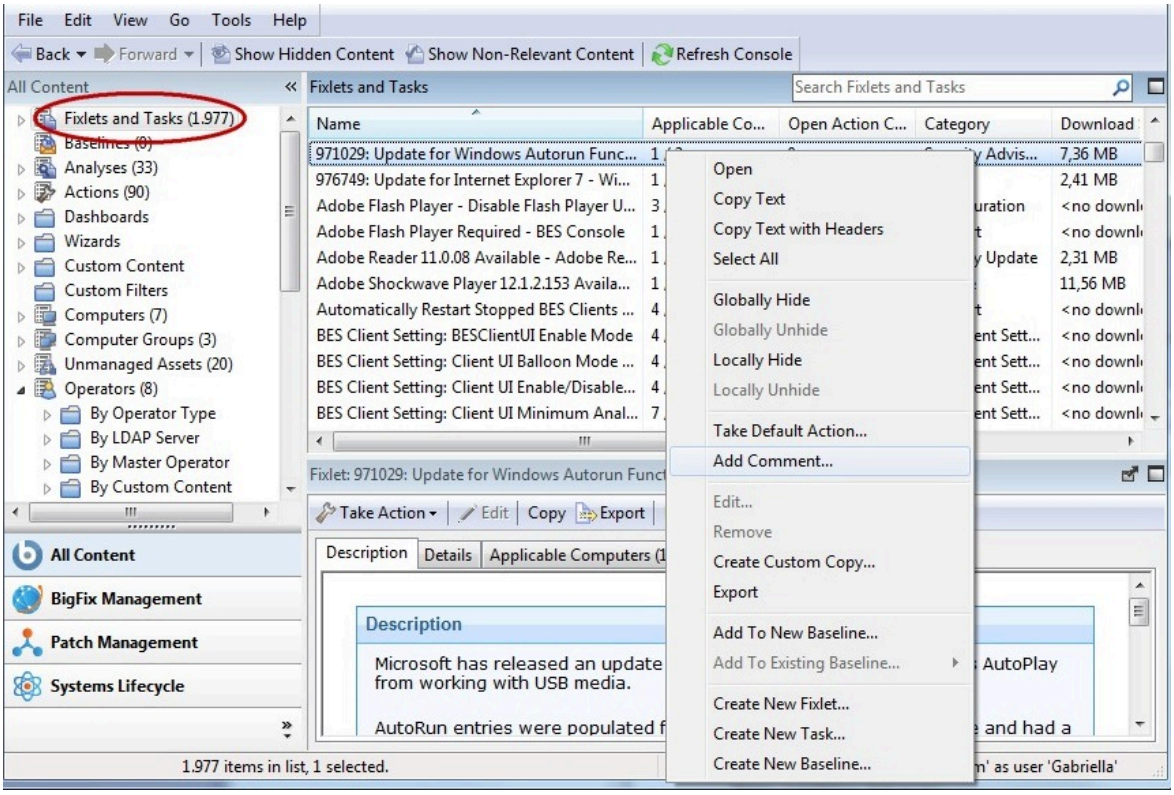
This dialog is available when you select **File > Change Password.**

Comments

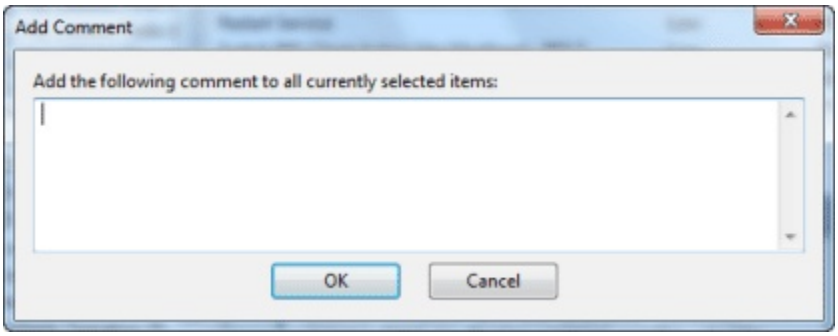
BigFix Console Operators can make comments on most of the BigFix objects, including Fixlets, Tasks, Actions, Computers, and so on.

These comments can be created whenever an object like a Fixlet is selected and displayed in the main window. Here is how to create a comment for a Fixlet message:

1. Click the **Fixlets and Tasks** icon in the Domain Panel navigation tree.
2. Right-click a Fixlet and select **Add Comment**.



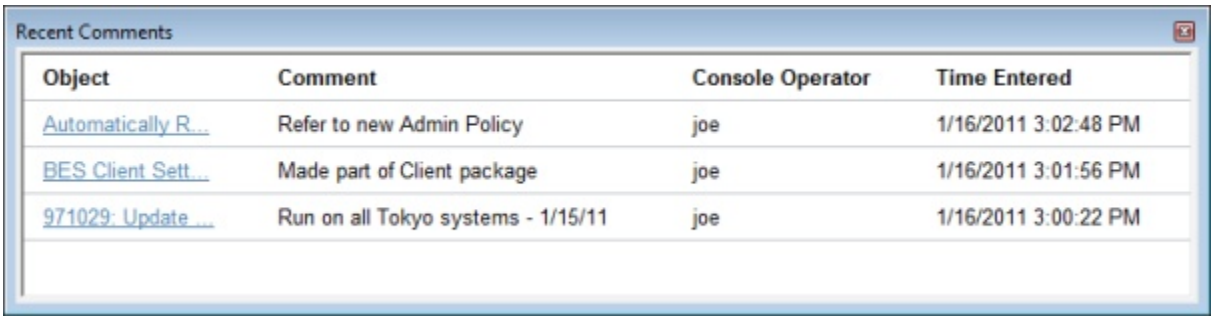
3. Type your comment into the dialog box that opens.



4. Alternatively, you can double-click a Fixlet message, select the **Details** tab, and enter your comment at the bottom of the page.

Similarly, you can attach comments to Tasks, Actions, Computers, and Analyses. These comments can include keywords or operating notes. You might want to have special information about certain computers, or usage pointers for special Tasks. This is a free-form field, so you can make up your own rules for commenting.

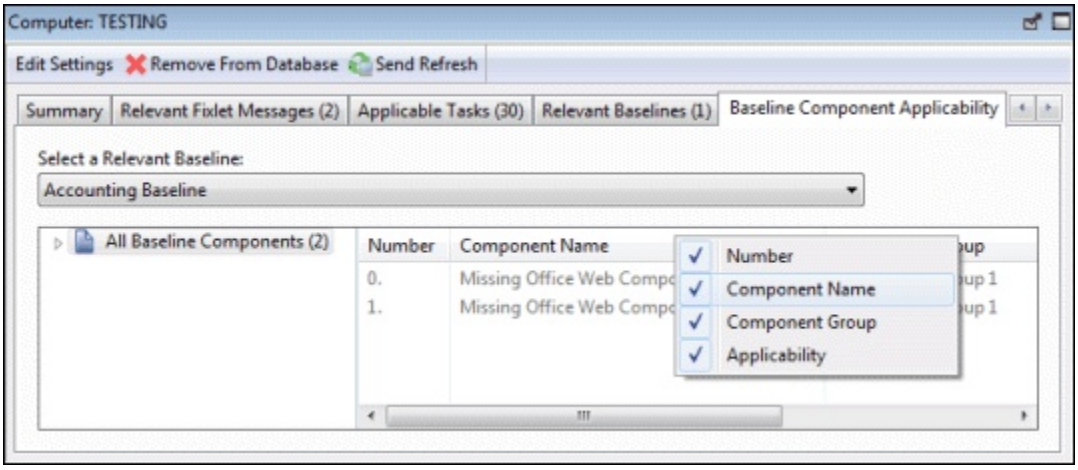
To view an aggregated list of all comments, select **View Recent Comments** from the **Tools** menu.



This dialog lists all the comments created to date, sorted by time-stamp, with the most recent comments at the top. The name of the Console Operator responsible for the comment is listed next to the description. Each comment contains a link that opens the original object in the main window, allowing you to view the description and other aspects of the object.

Component Applicability Tab

The **Component Applicability** tab of the **Baseline** document displays a list of how many computers have been targeted by the specific component.



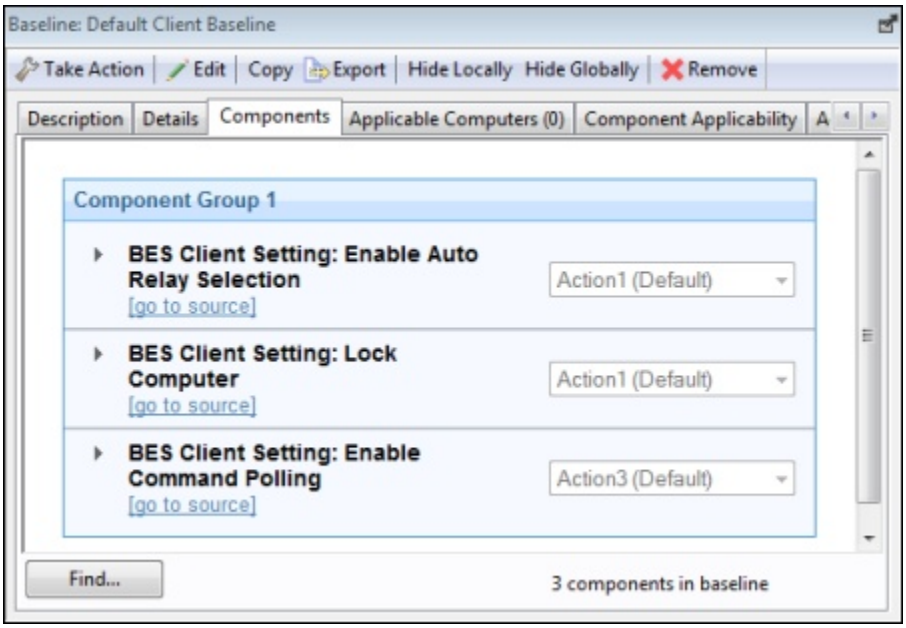
The components are numbered, corresponding to their order under the Components tab.

Following the number is the name of the component and then the Applicable Computer Count. This column is composed of multiple numbers in a form like '35/50 (4 unknown)'. The first number is the count of computers where the component is applicable, the second is the total number of computers targeted by the Baseline.

This dialog is available by choosing the **Baseline** icon in the Domain Panel navigation tree, opening an item from the resulting List Panel, and clicking the **Component Applicability** tab.

Components Tab

The **Components** tab of the **Baseline** document displays a list of all the component Fixlet messages and Tasks that have been grouped into this particular Baseline.



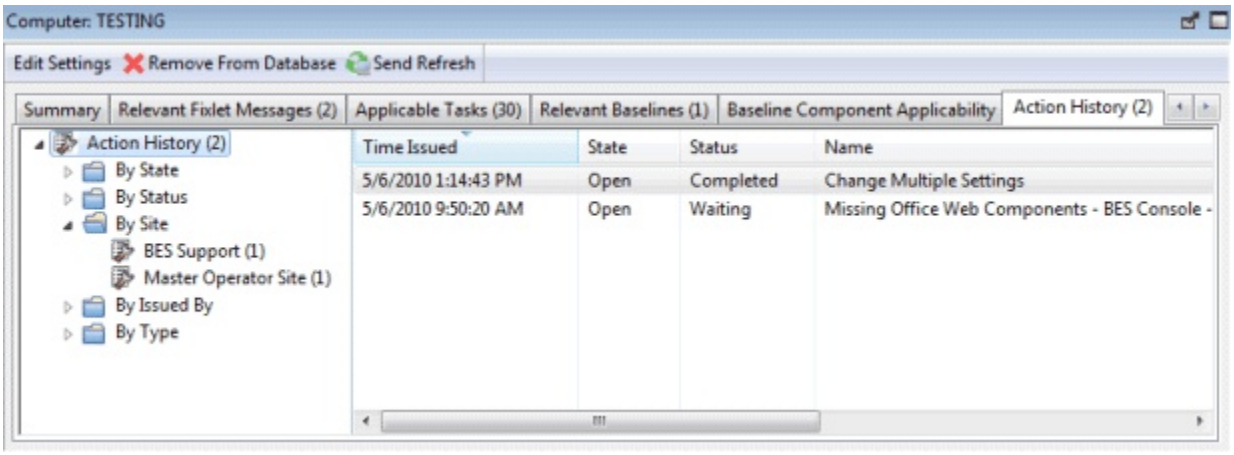
Click the links beneath each component to view the source Fixlet or Task, or to see the actual code behind the Relevance statements and Action scripts.

The components of a Baseline are copies of the original Fixlet or Task, not pointers. As such, if the underlying Fixlet or Task changes, the Baseline might become out of sync with the original. If this happens, the message **Source Fixlet differs** is shown in the component listing.

This dialog is available by choosing the **Baseline** icon in the Domain Panel navigation tree, opening an item from the resulting List Panel, and clicking the **Components** tab.

Computer: Action History

The **Action History** tab provides a listing of all the actions that have been deployed on the specified computer.



Note that unlike the general action list for all computers available from the main Actions Tab, this list contains only actions targeted to the selected computer.

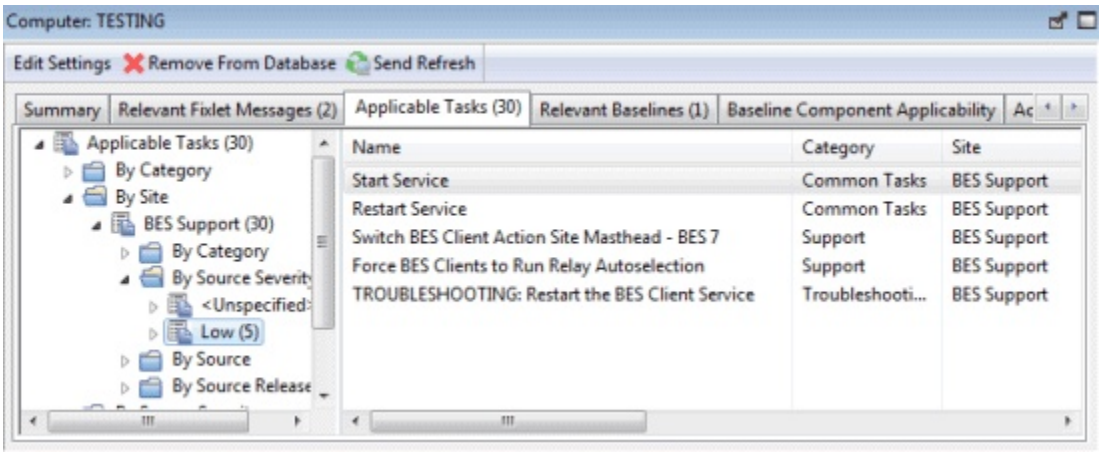
The Action History list has options similar to any Action List Panel.

To view more information about a particular action, double-click it. This opens the corresponding **Action document** in the Work Area.

This dialog is available by choosing the **Computers** icon from the Domain Panel navigation tree and then clicking a computer from the list. Then click the **Action History** tab in the Computer document window.

Computer: Applicable Tasks

The **Applicable Tasks** tab of the Computer document lists all the Tasks that are relevant to the selected computer.



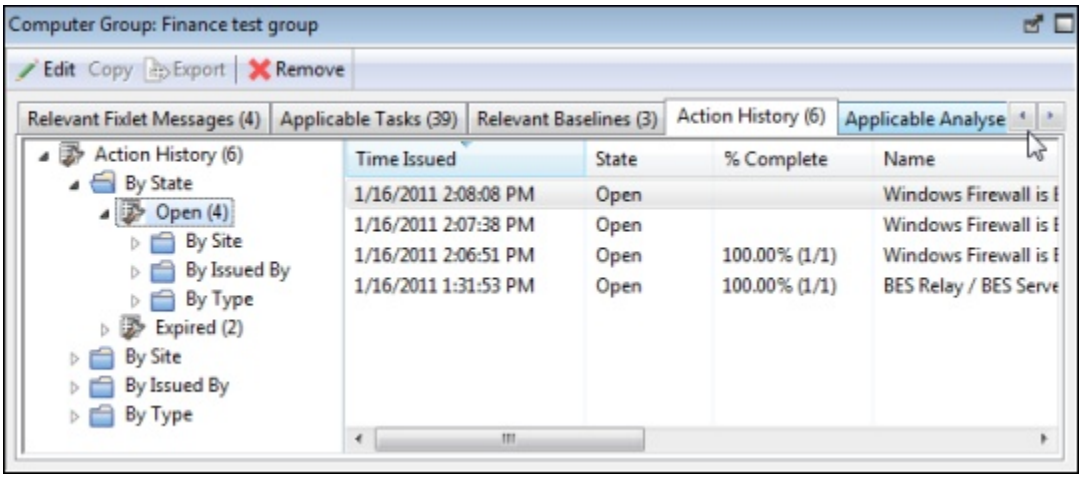
This filter list is updated in real-time, refreshing its display as Tasks are reevaluated. You can filter the list by clicking items in the left pane, and sort the tasks by clicking the appropriate headers.

This dialog has the same options as any Task List Panel.

This dialog is available by clicking the **Computers** icon in the Domain Panel navigation tree and then clicking a computer from the resulting List Panel. Then click the **Applicable Tasks** tab in the Computer document window.

Computer Group: Action History

The **Action History** tab of the **Computer Group** document provides a historical listing of all the actions that target any member of the specified computer group.



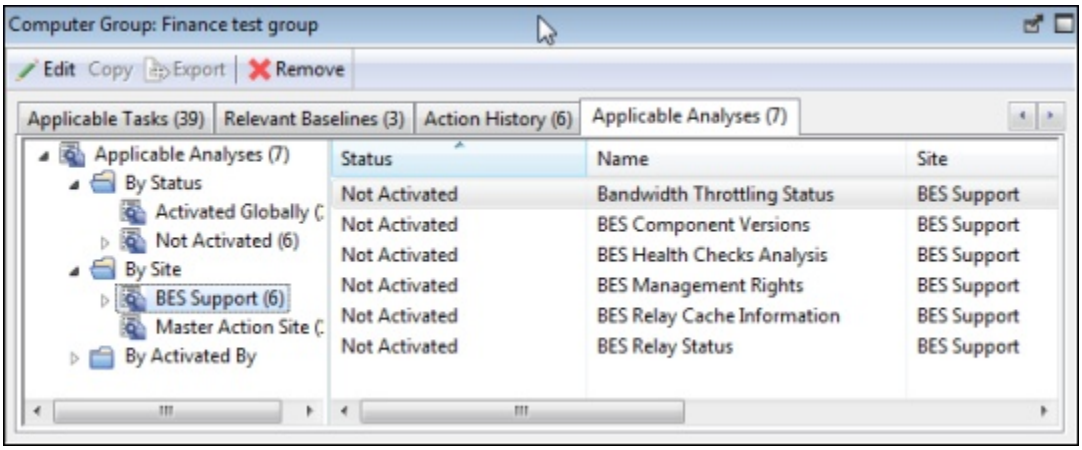
This dialog has the same options as any Action History List Panel, but contains only those Actions that are targeted to the selected Computer Group.

To view more information about a particular Action, double-click it. This opens the corresponding **Action document** in the bottom panel.

This dialog is available by clicking the **Computer Groups** icon in the Domain Panel navigation tree and clicking a Computer Group from the resulting List Panel. Then click the **Action History** tab in the Computer Group Work Area.

Computer Group: Applicable Analyses

The **Applicable Analyses** tab of the **Computer Group** document provides a listing of all the Analyses applicable to this group and allows you to filter them.



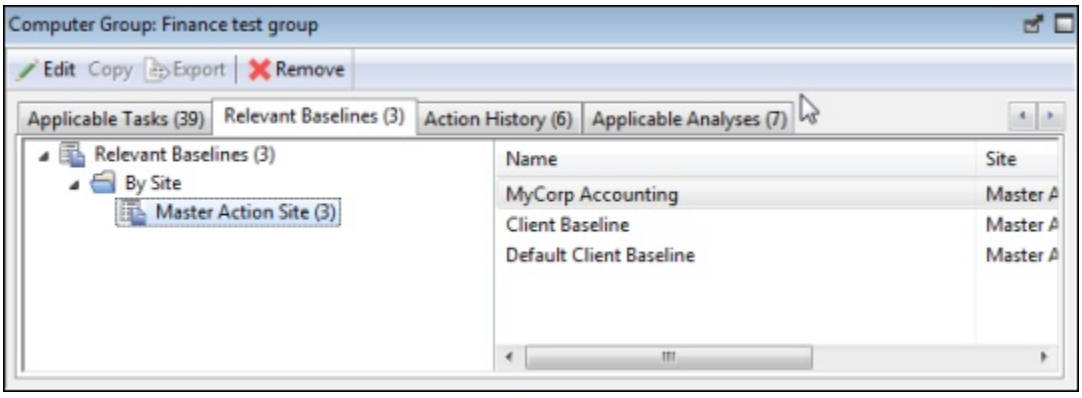
This dialog has the same options as any Analyses List Panel.

To view more information about a particular Analysis, click it. This opens the corresponding **Applicable Analyses document** in the bottom panel.

This dialog is available by clicking the **Computer Groups** icon in the Domain Panel navigation tree and clicking a Computer Group from the resulting List Panel. Then click the **Applicable Analyses** tab in the Computer Group document window.

Computer Group: Relevant Baselines

The **Relevant Baselines** tab of the **Computer Group** document provides a listing of all the Baselines that have been deployed on the specified Computer Group.



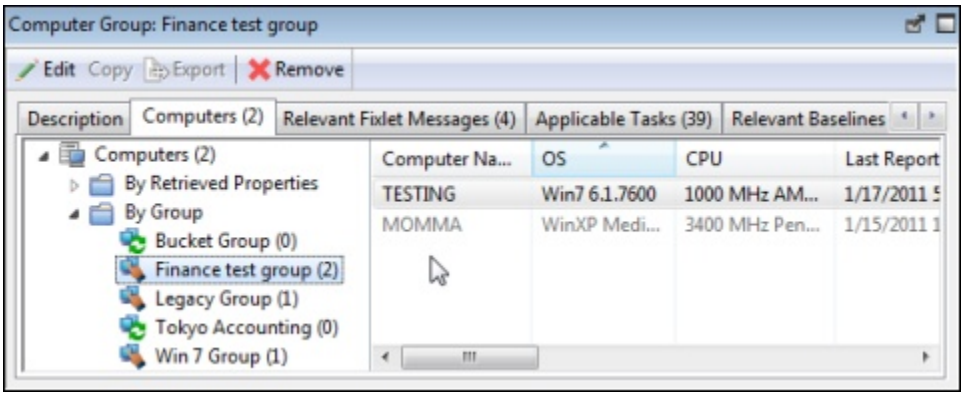
This dialog has the same options as any Baseline List Panel, but contains only Baselines targeted to the selected Computer Group.

To view more information about a particular Baseline, double-click it. This opens the corresponding **Relevant Baseline document** in the Work Area.

This dialog is available by clicking the **Computer Groups** icon in the Domain Panel navigation tree and clicking a Computer Group from the List Panel. Then click the **Relevant Baselines** tab in the Computer Group Work Area.

Computer Group: Computers

The **Computers** tab of the **Computer Group** document provides a listing of all the computers that have been manually selected to be a part of the specified Computer Group.



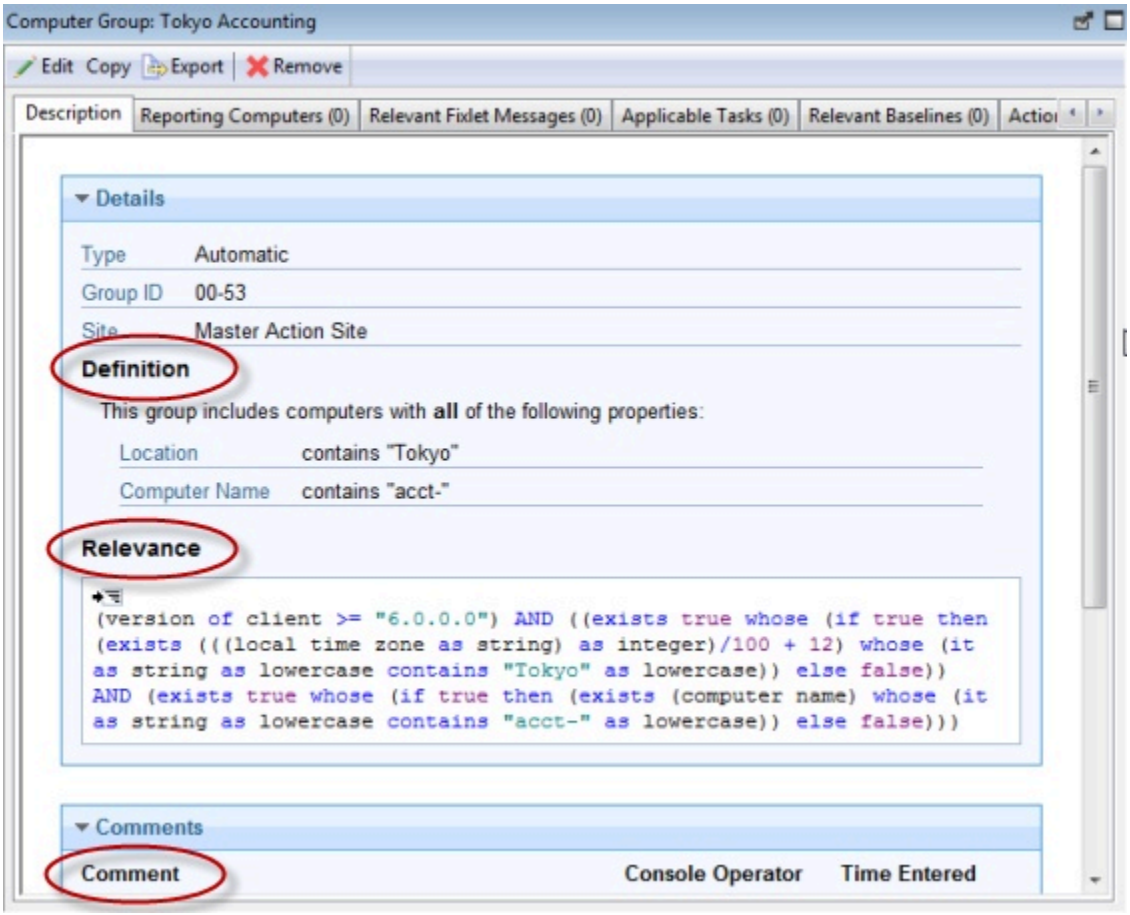
This dialog is displayed only for Manual Computer Groups. It has options similar to other Computer lists, but contains only computers belonging to the selected Manual Computer Group. Note that the number of reporting computers is available in the tab itself, for viewing at a glance.

To view more information about a particular Computer, double-click it. This opens the corresponding **Computer document** in the bottom panel.

This dialog is available by clicking the **Computer Groups** icon in the Domain Panel navigation tree and clicking a Manual Computer Group from the List Panel. Then click the **Computers** tab in the Computer Group Work Area.

Computer Group: Description

The **Description** tab of the **Computer Group** document provides information about a selected Computer Group. Below is the dialog for an Automatic Computer Group.



It contains different information depending on whether the group is Automatic or Manual:

Automatic Computer Groups contain several sections:

- **Group Definition:** This is a listing of the properties that specify the inclusion of a computer into the group. Each is a clause of the form <property> <relationship> <value>. For example, **OS contains "win"**, creates an Automatic Computer Group consisting of Windows machines.

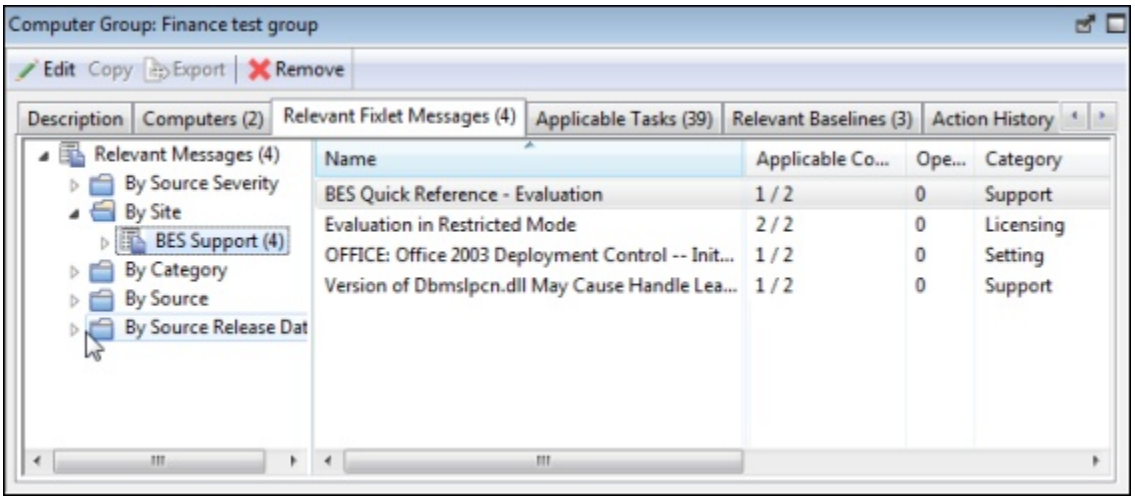
- **Targeting Relevance:** This is the full Relevance expression that implements the property evaluation described above. Click **show indented relevance** to see a formatted version of the expression.
- **Comments:** This is a text box to enter a comment that is attached to the Computer Group for other operators to view.

Manual Computer Groups only contain a **Comment** box. The information you enter here is attached to this Computer Group and become available to other Console operators.

This dialog is available by clicking the **Computer Groups** icon in the Domain Panel navigation tree and clicking a Computer Group from the List Panel. Then click the **Description** tab in the Computer Group document window.

Computer Group: Relevant Fixlet Messages

The **Relevant Fixlets** tab of the **Computer Group** document provides a listing of all the Fixlet messages that have been targeted to the specified Computer Group.



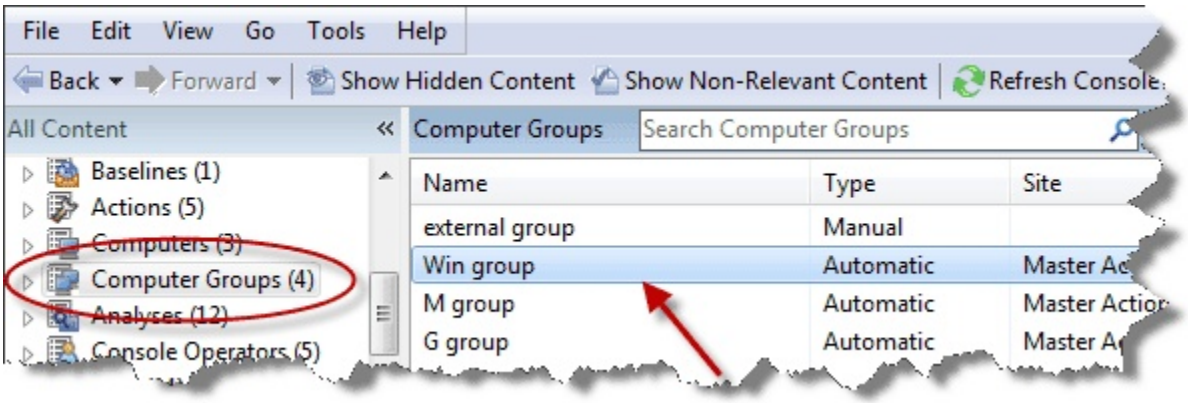
This dialog has the same options as any Fixlet List Panel, but contains only those Fixlet messages targeted to the selected Computer Group.

To view more information about a particular Fixlet message, double-click it. This opens the corresponding **Relevant Fixlet message** document in the Work Area.

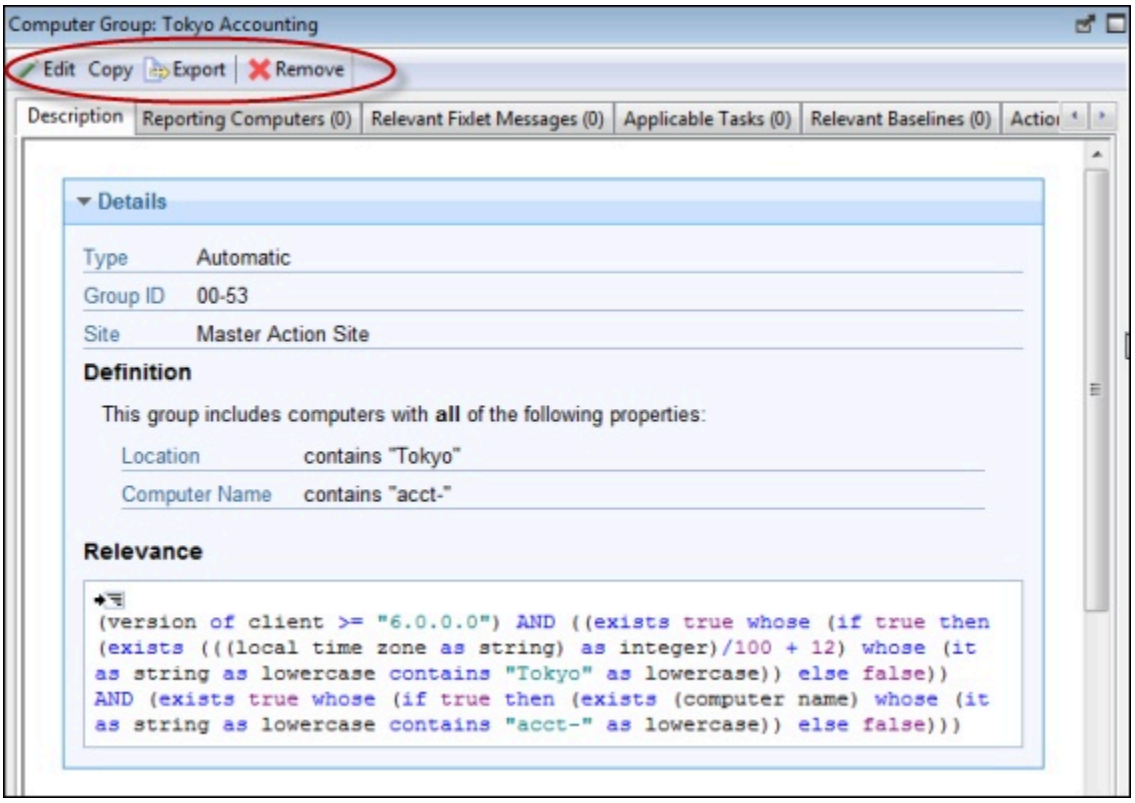
This dialog is available by clicking the **Computer Groups** icon in the Domain Panel navigation tree and clicking a Computer Group from the List Panel. Then click the **Relevant Fixlets** tab in the Computer Group Work Area.

Computer Group List and Document

A list of Computer Groups is displayed when you click **Computer Groups**, or any of its child nodes, from the Domain Panel navigation tree.



A **Computer Group document** is displayed in the Work Area of the Console when you click any item from this list.



At the top of the Computer Group document is the name of the group. Under that is the Computer Group toolbar. It includes:

- **Edit:** Open up a dialog that allows you to edit the criteria for this group.
- **Copy:** Create a copy of this group and edit it.
- **Export:** Save this group for editing by an external editor.
- **Remove:** Delete this group from the list.

There are several tabs in a Computer Group document, and they might differ according to the group type. They include:

- **Description:** For an Automatic group, this tab displays the Group Definition (as a list of property-associated Relevance expressions), the Targeting Relevance clause that implements the group definition, and a comment box. For a Manual group, this tab displays a comment box only.

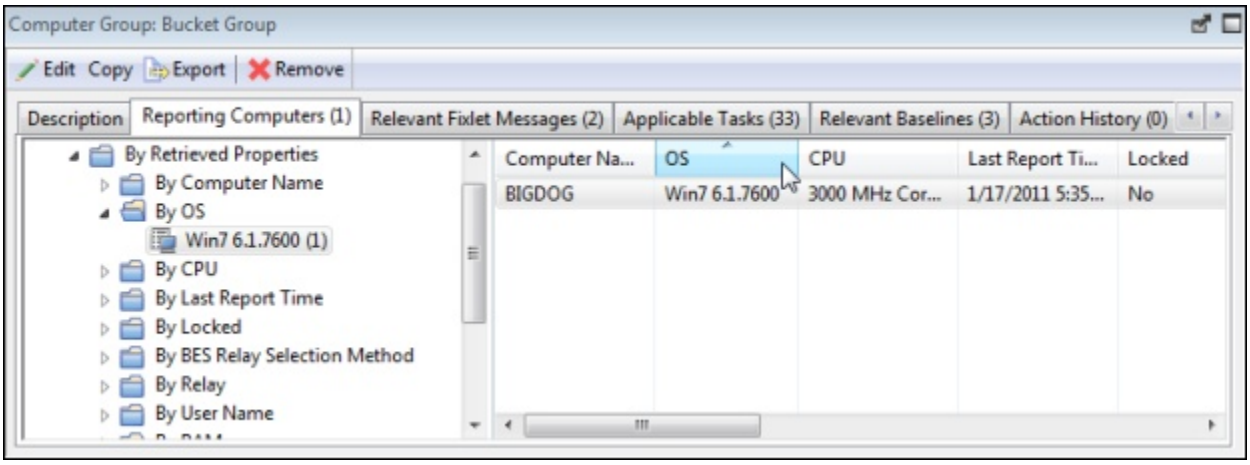
- **Reporting Computers:** Only displayed for Automatic groups, this tab is a list of the computers that are currently considered members of the group, based on properties and Relevance. This is a filter/list panel, allowing you to narrow down the list by selecting from the filtering folders on the left side.
- **Computers:** Only displayed for Manual groups, this tab is a list of the computers that have been manually selected to be members of the group. This is a filter/list panel, allowing you to narrow down the list by selecting from the filtering folders on the left side.
- **Relevant Fixlet Messages:** Lists all the Fixlet messages that apply to this Computer Group.
- **Applicable Tasks:** Lists all the Tasks that apply to this Computer Group.
- **Relevant Baselines:** Lists all the Baselines that apply to this Computer Group.
- **Action History:** Lists all the Actions that target any member of this computer group.
- **Applicable Analyses:** Lists all the Analyses and allows you to filter them by Computer Group.

To display a Computer Group list, click the **Computer Groups** icon (or any of its child nodes) in the Domain Panel navigation tree.

A **Computer Group document** is opened whenever you click an item in a Computer Group list.

Computer Group: Reporting Computers

The **Reporting Computers** tab of the **Computer Group** document provides a listing of all the computers that have been automatically chosen to be a part of the specified Computer Group because of their property values.



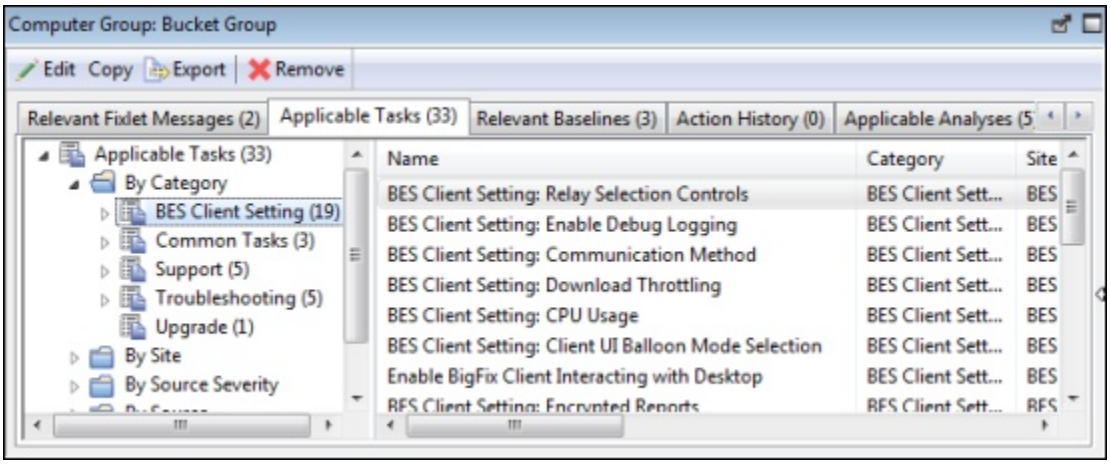
This dialog is displayed only for Automatic Computer Groups. It has the same options as any Computer List Panel, but contains only computers reporting to the selected Computer Group.

To view more information about a particular Reporting Computer, double-click it. This opens the corresponding **Computer document** in the Work Area.

This dialog is available by clicking the **Computer Groups** icon in the Domain Panel navigation tree and clicking an Automatic Computer Group from the List Panel. Then click the **Reporting Computers** tab in the Computer Group Work Area.

Computer Group: Applicable Tasks

The **Applicable Tasks** tab of the **Computer Group** document provides a listing of all the Tasks that are applicable to one or more computers in the specified Computer Group.



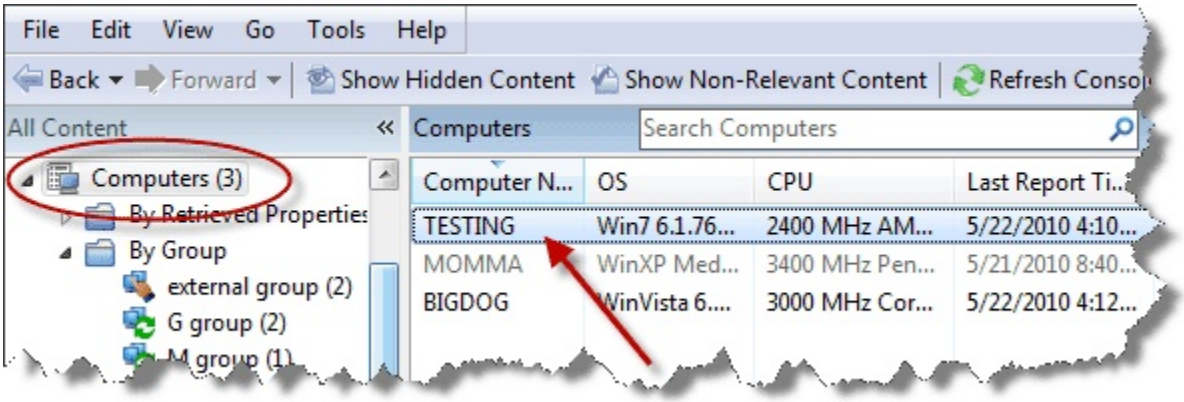
This dialog has the same options as any Task list. Click any header to sort the list.

To view more information about a particular Task, double-click it. This opens the corresponding **Task document** in the Work Area.

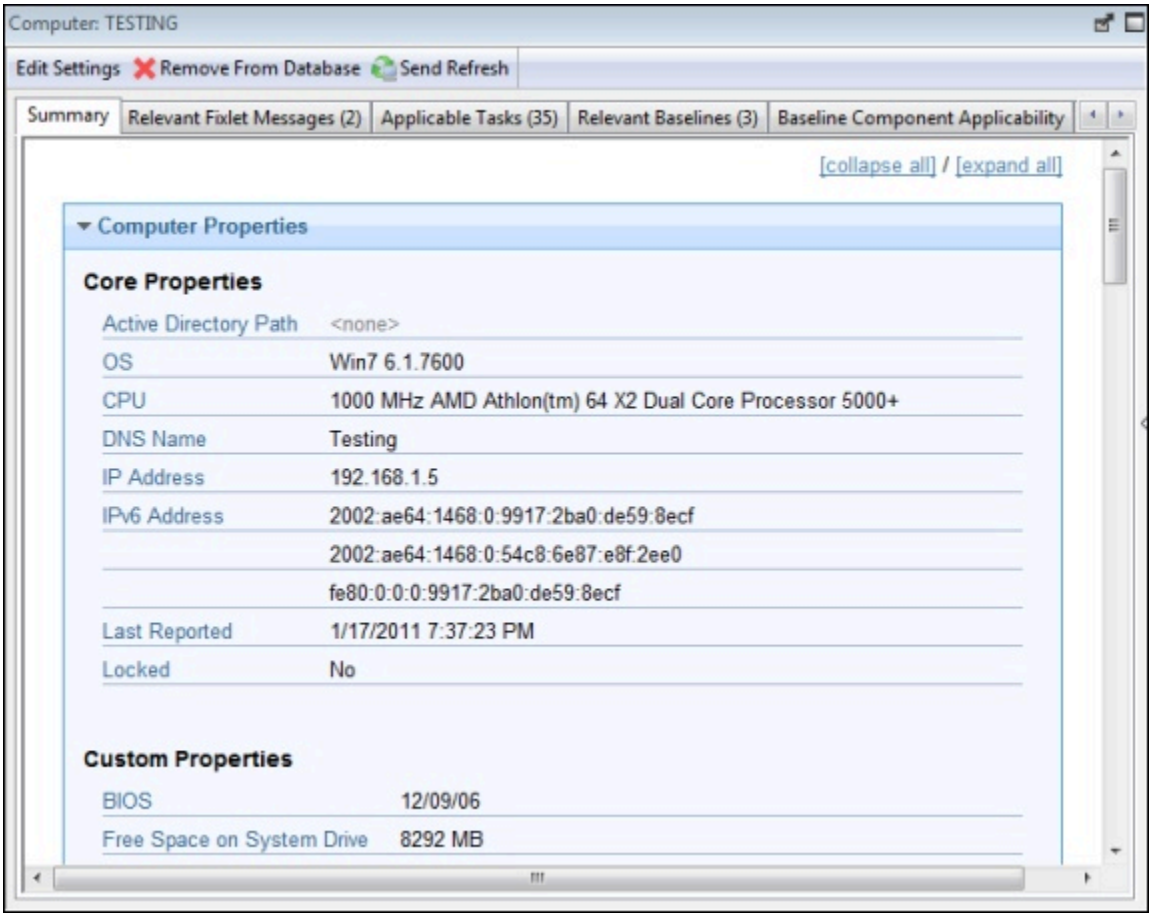
This dialog is available by clicking the **Computer Groups** icon in the Domain Panel navigation tree and clicking a Computer Group from the List Panel. Then click the **Applicable Tasks** tab in the Computer Group Work Area.

Computer List and Document

A list of Computers is displayed when you click **Computers**, or any of its child nodes, from the Domain Panel navigation tree.



A **Computer document** is displayed in the bottom window of the Console when you click any item from this list. Click the **Summary** tab to see essential information about this computer.



Here you find the name, information about the processor, and operating system. Scroll down to see more information, including how many Fixlet messages are relevant to this computer and how many actions are open.

There are several tabs in a Computer document. They include:

- **Summary:** Displays a list of properties that are being retrieved from this computer, as well as the Client Relay Status, Group Memberships, Custom Sites, Settings, and Comments.
- **Relevant Fixlet Messages:** A list of the Fixlet messages that are currently relevant on this computer. These can be narrowed down using the filter tree in the left panel, then

sorted by clicking the column headers. The current number of relevant messages is indicated in the tab itself, so you can see it at a glance.

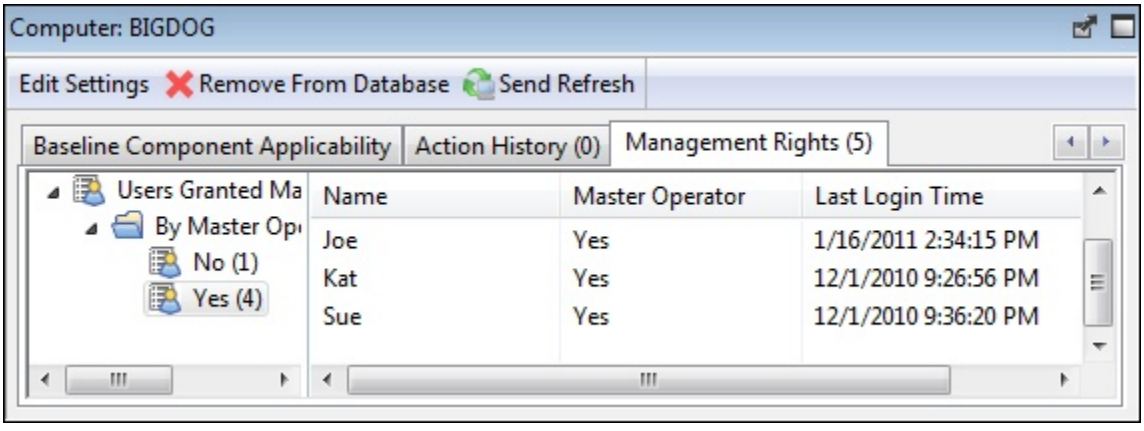
- **Applicable Tasks:** Lists the Tasks that apply to this computer. The current number of tasks is indicated in the tab.
- **Relevant Baselines:** Lists the Baseline items (Fixlets and Tasks) that have been assigned to this computer. The current number of baselines is indicated in the tab.
- **Baseline Component Applicability:** Shows which components of specified Baselines are applicable to this computer.
- **Action History:** Shows which Actions have been applied to this computer. The current number of Actions is indicated in the tab.
- **Management Rights:** Displays the names of the authorized operators for this computer. The current number of operators is indicated in the tab.

A computer list is displayed when you click the **Computers** icon (or any of its child nodes) in the Domain Panel navigation tree.

A **Computer document** is opened whenever you click an item in any list of Computers.

Computer: Management Rights

The **Management Rights** tab of the **Computer** dialog lists the operators who are currently granted management rights to apply actions to the specified computer.



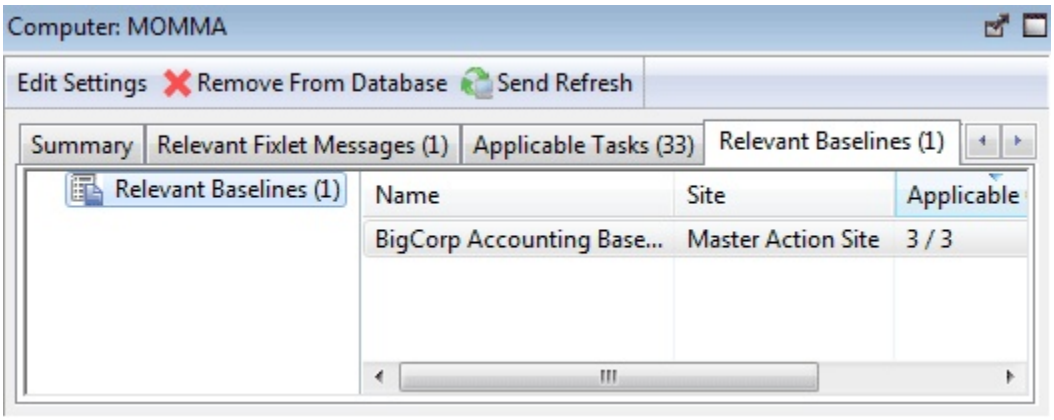
You can filter this list by using the filter tree in the left panel. The list has three headers that you can use to sort the list:

- **Name:** The name of the Console operator who has been granted rights.
- **Master Operator:** A Yes or No flag that indicates if the rights manager is also a Master Operator.
- **Last Login Time:** The last time this operator logged in to the BigFix System

This dialog is available by clicking the **Computers** icon in the Domain Panel navigation tree and then clicking a computer in the resulting List Panel. Then click the **Management Rights** tab in the Work Area below.

Computer: Relevant Baselines

The **Relevant Baselines** tab of the Computer document lists all the Baselines that are applicable to the selected computer.



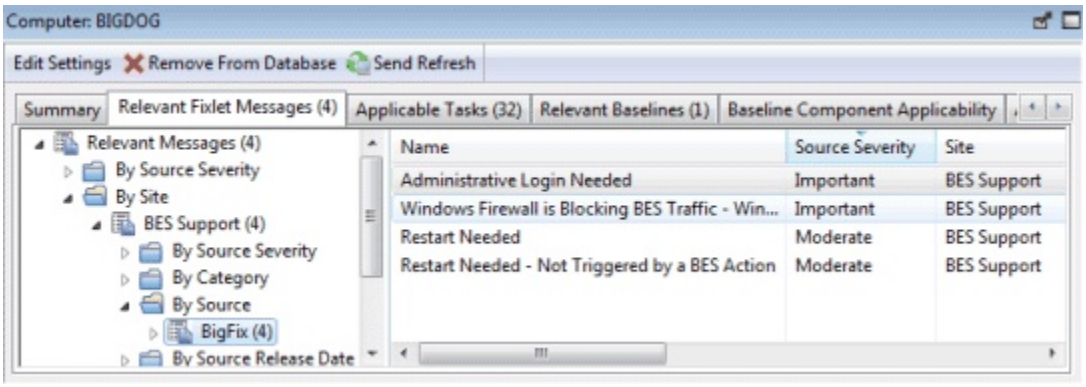
This filter/list is updated in real-time, refreshing its display as Baselines are reevaluated. The number of Baselines that are currently relevant is listed in the tab itself for easy viewing. Because Baselines contain content such as Fixlets that are targeted to computers based on relevance, different Baselines might apply to different computers, depending on current applicability.

This dialog has the same options as any Baseline List Panel, and can be sorted by the same headers. You can open and view individual Baselines by double-clicking them from this list.

This dialog is available by clicking an item in any Computer list. Then click the **Relevant Baselines** tab in the Computer Work Area.

Computer: Relevant Fixlet Messages

The **Relevant Fixlet Messages** tab of the Computer document lists all the Fixlet messages that are relevant to the selected computer.



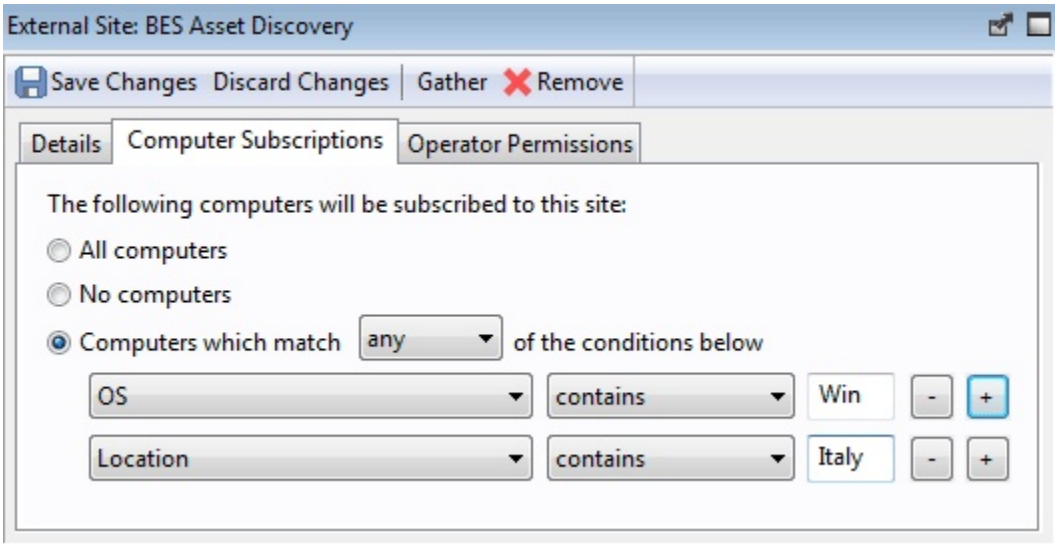
This filter list is updated in real-time, refreshing its display as Fixlet messages are reevaluated. The number of Baselines that are currently relevant is listed in the tab itself for easy viewing.

This dialog has the same options as any Fixlet List Panel and can be sorted by the same headers.

This dialog is available by clicking the **Computers** icon in the Domain Panel navigation tree and clicking a computer from the List Panel. Then click the **Relevant Fixlet Messages** tab in the Computer Work Area.

Computer Subscriptions Tab

The **Computer Subscriptions** tab of the Sites document lets you establish criteria for subscribing Clients to the specified site.

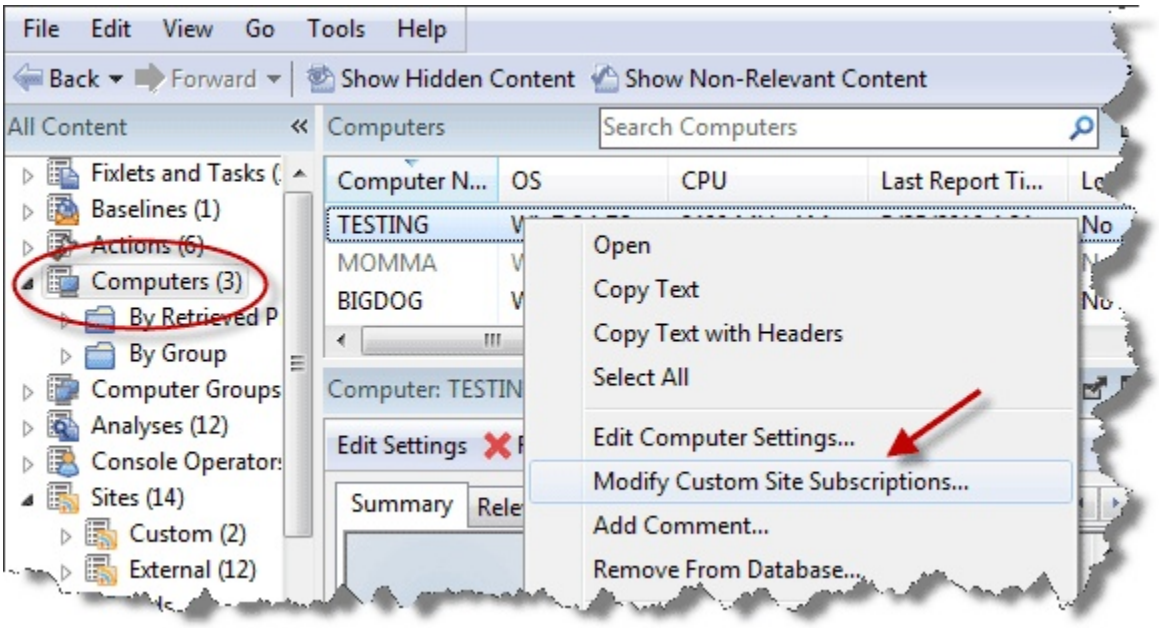


There are three buttons available for external sites.

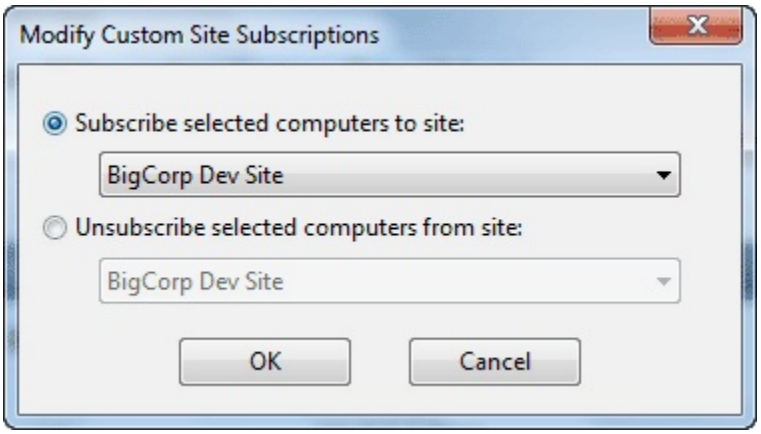
- **All computers**. Subscribe all available clients to the specified site.
- **No computers**. Do not subscribe any clients to the site.
- **Computers which match...** Set criteria for subscription based on client properties. This is a flexible technique to subscribe only those computers that satisfy the properties you specify in a property / operator / value trio. You can select **any** or **all** from the pull-down menu to OR or AND the criteria together. Use the plus button to add another criterion and the minus button to delete one.

For custom sites, there is another button.

- **Computers subscribed via ad-hoc custom site subscription actions.** With this option all computers start out unsubscribed. To subsequently subscribe a computer, you must display the list of computers (click **Computers** from the Domain Panel navigation tree) and then right-click the set of computers you want. From the context menu, select **Modify Custom Site Subscriptions**.



From the resulting dialog, select sites to subscribe or unsubscribe.

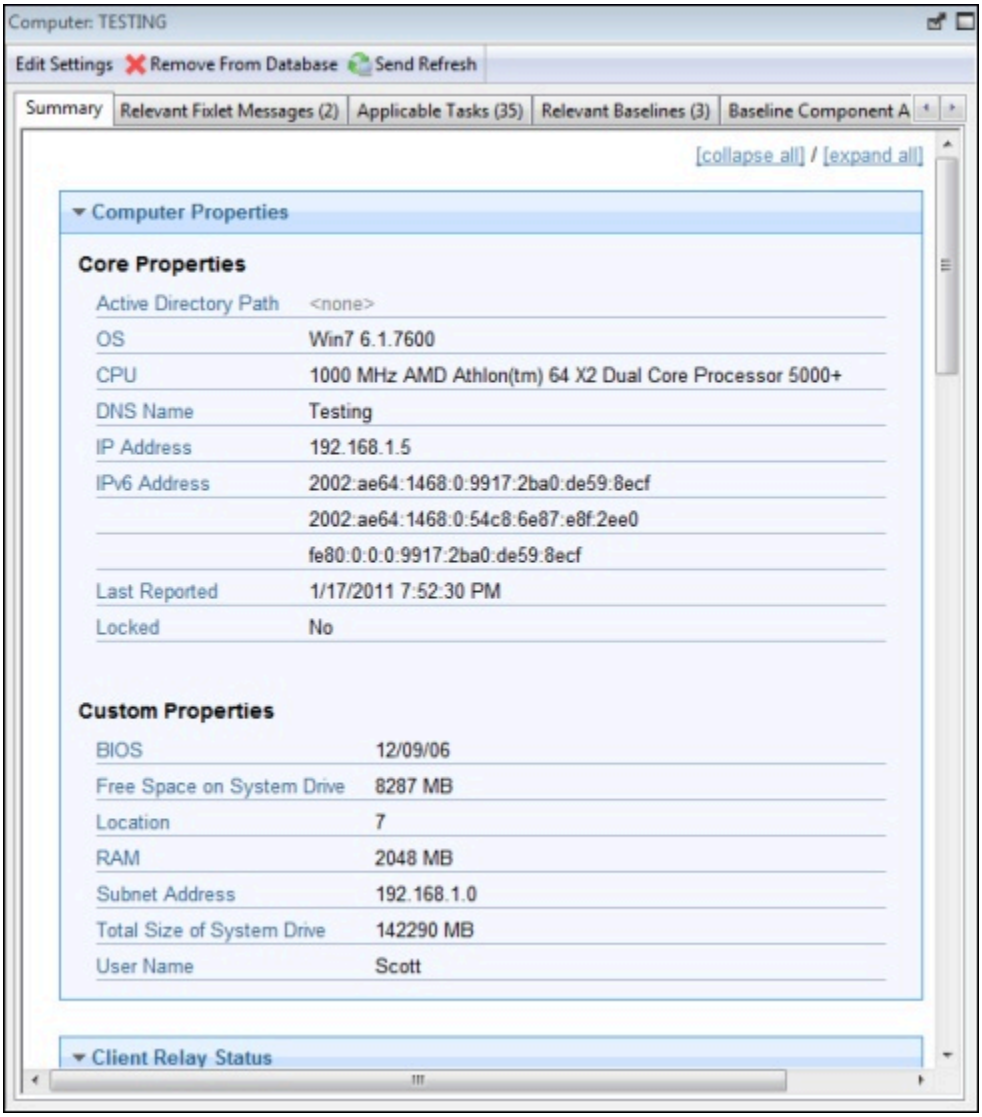


Only those sites where the ad-hoc option has been set are available for subscription in the pull-down menu. Note that this dialog also allows you to unsubscribe computers from an ad-hoc grouping.

This dialog is available by clicking the **Sites** icon in the Domain Panel navigation tree, clicking an item from the resulting List Panel, and then clicking the **Computer Subscriptions** tab.

Computer: Summary

The Computer **Summary** tab lists several items of interest, including Properties, Relay status, Grouping, Custom Sites, Settings, and more.



The **Properties** section of the Summary lists various properties of the given computer, derived from Relevance Expressions. These properties help you define subsets, sorting fields, reports, and grouping criteria for the various client computers under your administration.

Note: The BigFix Console summary displays no more than 1000 lines for multi line properties.

The default properties include, but are not limited to:

Core Properties

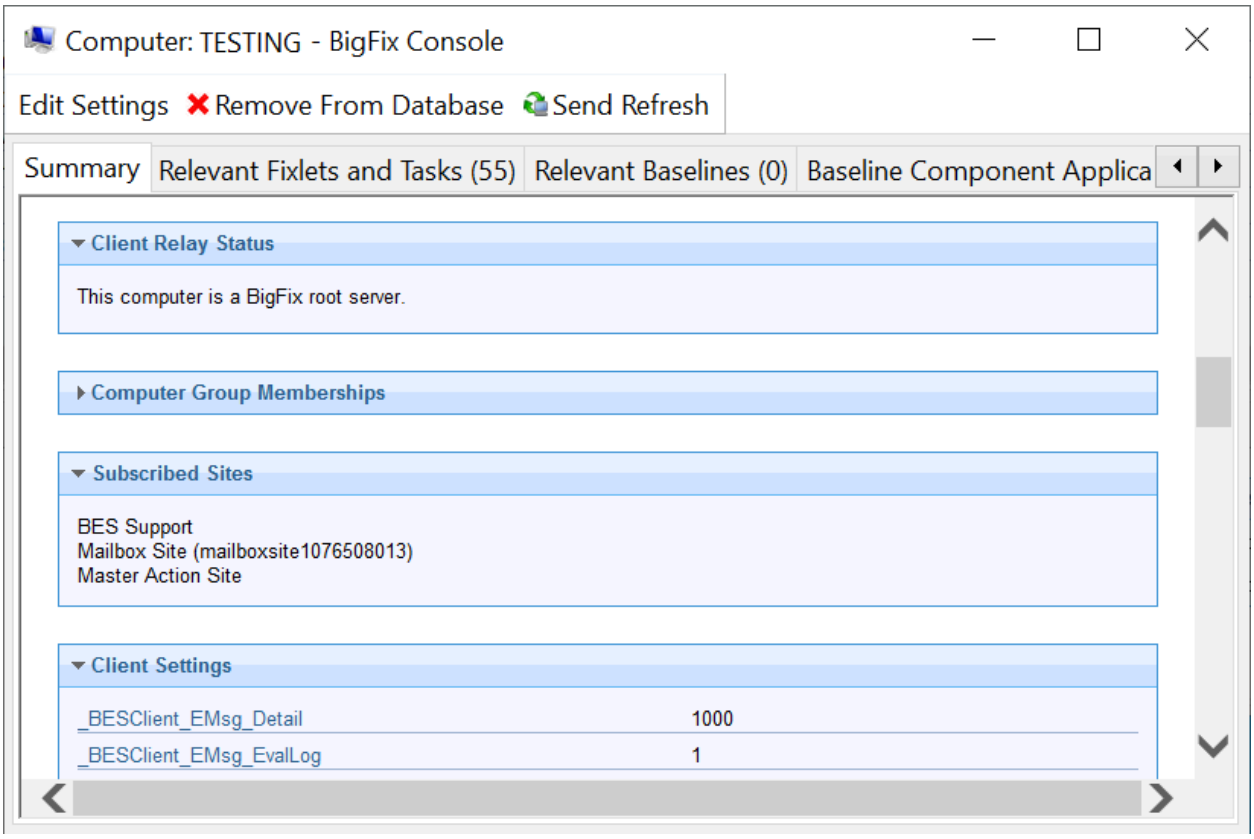
- **Active Directory Path:** The position of the BigFix Client within the Active Directory hierarchy.
- **OS:** The operating system of the given computer.
- **CPU:** The speed and type of CPU.
- **DNS Name:** The name of the computer.
- **IP Address:** The current IP Address of the computer.
- **IPv6 Address:** The version 6 IP Addresses of the computer
- **Last Reported:** The time that the computer last reported.
- **Locked:** The locked status (Yes or No) of each computer.

Custom Properties

- **BIOS:** The version and date of the Basic Input/Output System.
- **Free Space on System Drive:** How much space is available on drive C of the given computer.
- **RAM:** The amount of RAM in the given computer.
- **Subnet Address:** The subnet IP Address of the given computer.
- **Total Size of System Drive:** The total size of the drive containing the operating system on the given computer.
- **User Name:** The name of the BigFix Client user.

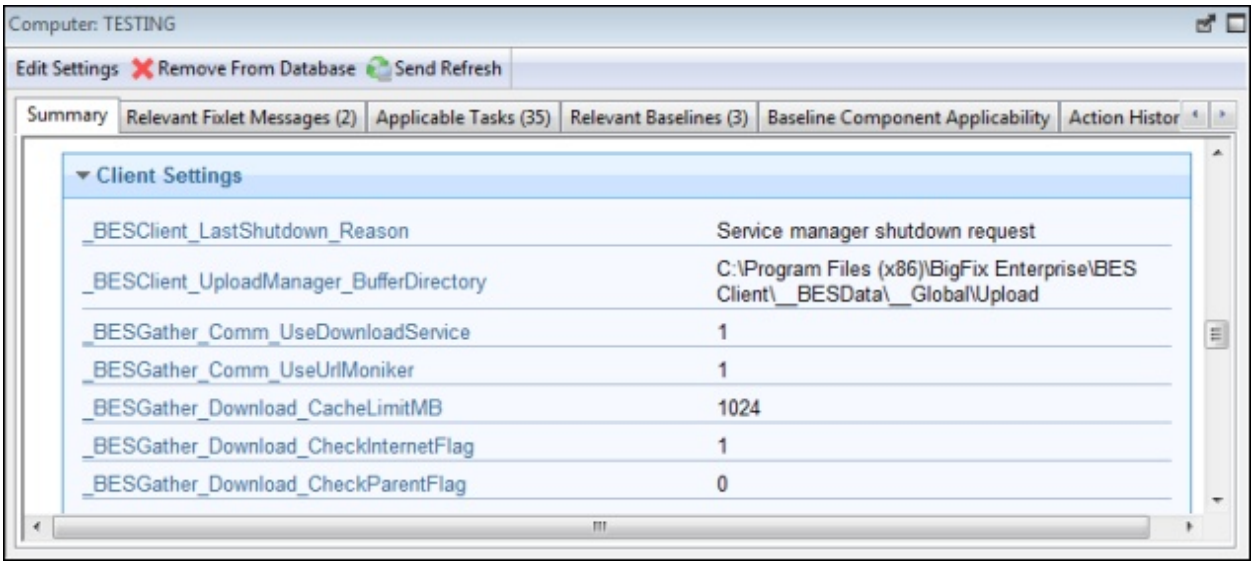
You can find out more about these predefined properties in the sections on computer properties and Relevance Expressions.

Scroll down to see the other sections of the Computer Summary.



- **Client Relay Status** identifies the status of the chosen computer as a Server, Relay, or Client.
- **Computer Group Membership** lists any groups, automatic or manual, that this computer is a member of.
- **Subscribed Sites** lists any Sites that this computer is subscribed to, including external sites, operator sites, and custom sites.

The following sections contain a list of **Settings** for this computer, including Client, Relay, Server, Gather, and WebReport settings and the **versions** of the BigFix software running on this computer.

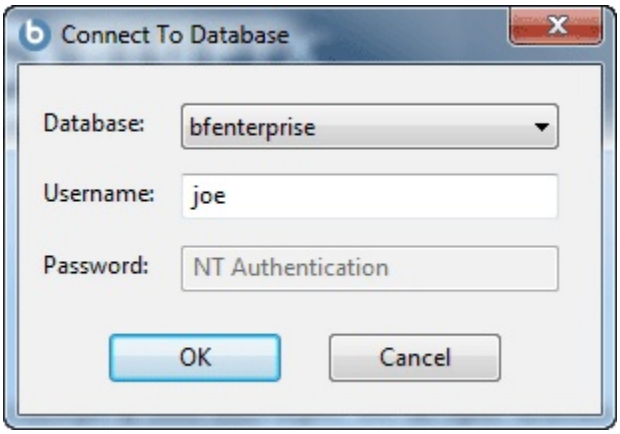


At the bottom of the page is a text box where you can enter **comments** that to be attached to this computer for future reference.

This dialog is available by clicking the **Computers** icon in the Domain Panel navigation tree and clicking a computer from the right-hand List Panel. Then click the **Summary** tab in the Computer Work Area.

Connect to Database

The **Connect to Database** dialog opens when you start the BigFix Console.



It lets you select which Database you want to manage.

Database: Select a database from the pull-down menu.

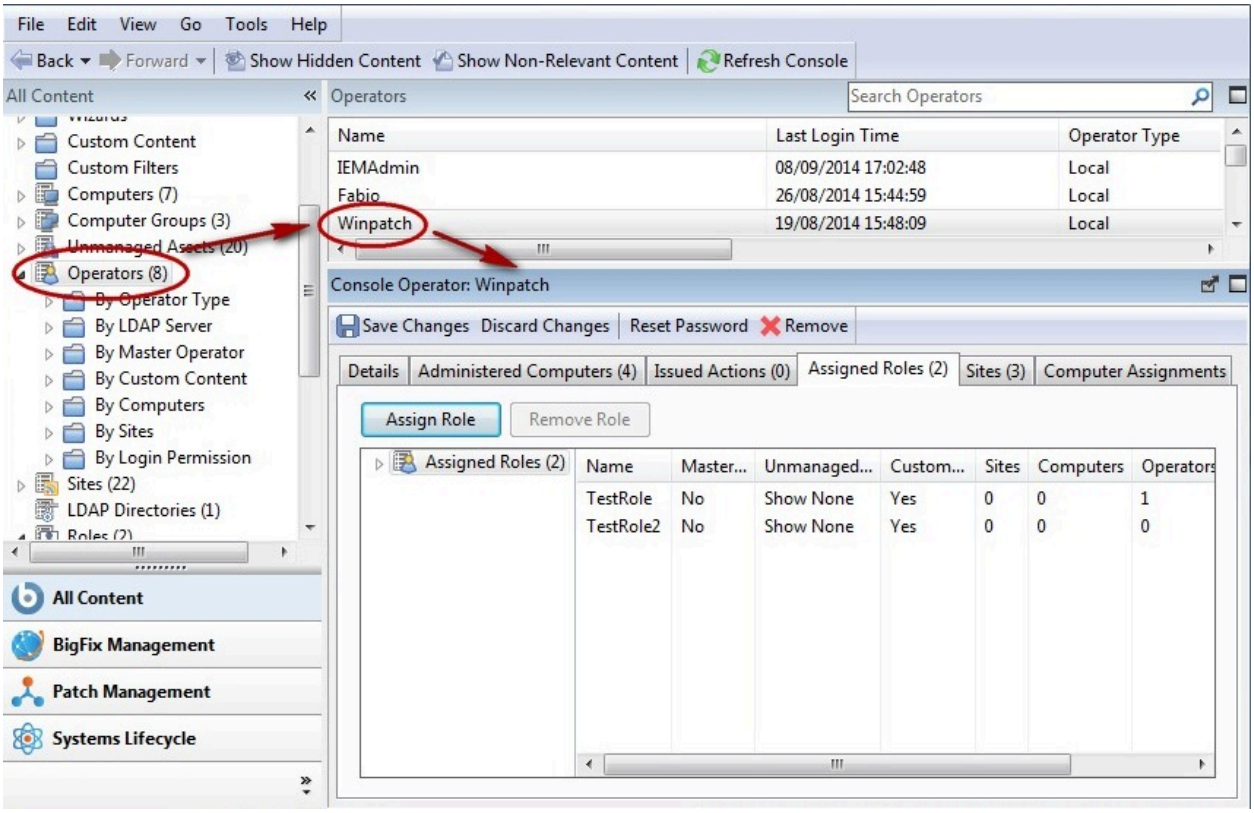
Username: Enter the user name that allows you to access the database. The set of allowed users is maintained by the BigFix Site Administrator using the BigFix Administration Tool.

Password: Enter the password that corresponds to the user name above. In some cases, NT will authenticate for the user. If this is the case, the password box is grayed out.

This dialog is available when launching the BigFix Console.

Console Operator: Assigned Roles Tab

The Assigned Roles tab of the Operators window allows you to associate roles with the specified Console operator.



Click **Assign Role** to bring up a dialog with your currently unassigned roles listed for selection. You can also delete roles from this operator by selecting them from the list and clicking **Remove Role**.

Make sure to click **Save Changes** before you dismiss this window.

This dialog is presented when you select someone from the Operator list or when you create an operator from scratch with one of the Operator creation commands available in the **Tools** menu.

Console Operator: Details Tab

The Details tab of the Operators window lets you define the permissions for each operator.

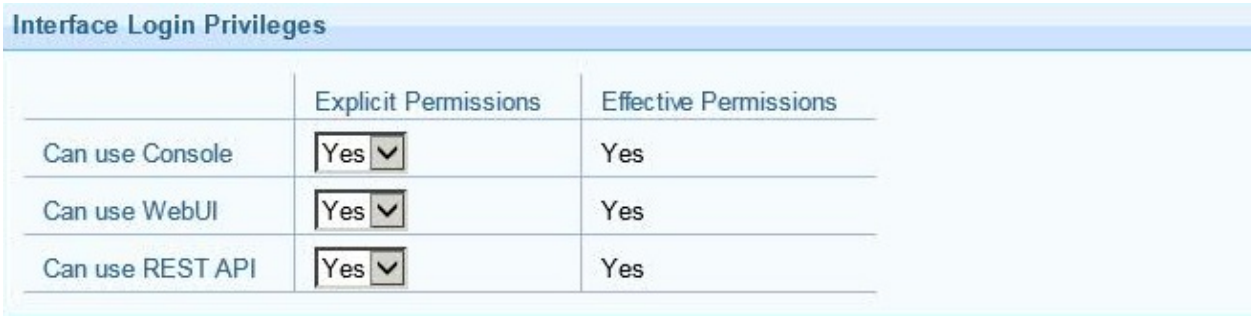
Select an operator from a list and then click the Details tab.



You also decide to influence the ability of the operator to trigger restart and shutdown as Post-Action or to include them in BigFix Action Scripts.



Depending on the configuration that you set for a specific operator for shutdown and restart, the radio button in the Take action panel might be disabled for that operator. This configuration has no effect on actions with type other than BigFix Action Script.
You can also set permissions to access the BigFix user interfaces.



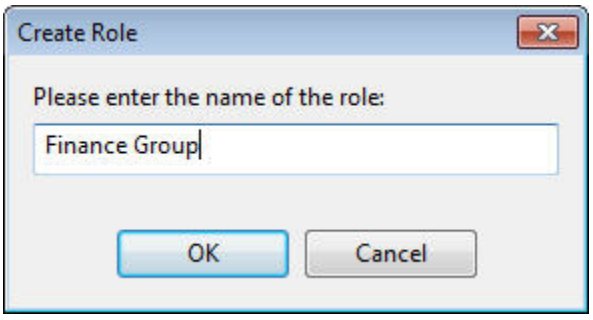
Make sure to click **Save Changes** before you dismiss this window.

This dialog is presented when you select someone from the Operator list or when you create an operator from scratch with one of the Operator creation commands available in the **Tools** menu.

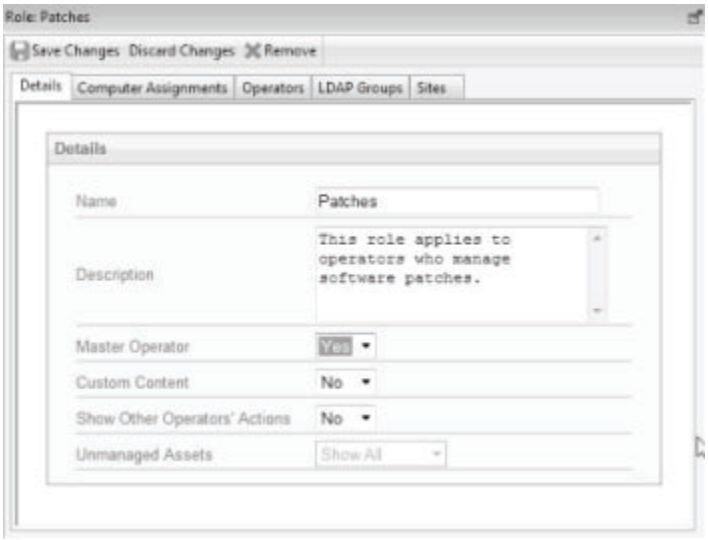
Create Role

This dialog allow you to add Roles to the Console that can then be shared by other Operators.

To start specifying a role, select **Tools > Create Role** and enter a name for the role.



The rest of the definition happens through a tabbed document interface.



Set the basic permissions for the role through the **Details** tab. Decide which computers will be associated with this role using the **Computer Assignments** tab. You can select specific users who will assume this role through the **Operators** tab. You can also add entire groups of users with the **LDAP Groups** tab. Finally, you can assign specific sites to be the purview of this role with the **Sites** tab.

This dialog is presented when you select **Tools > Create Role**.

Help for the BigFix Console

Show the help files for the BigFix Console.

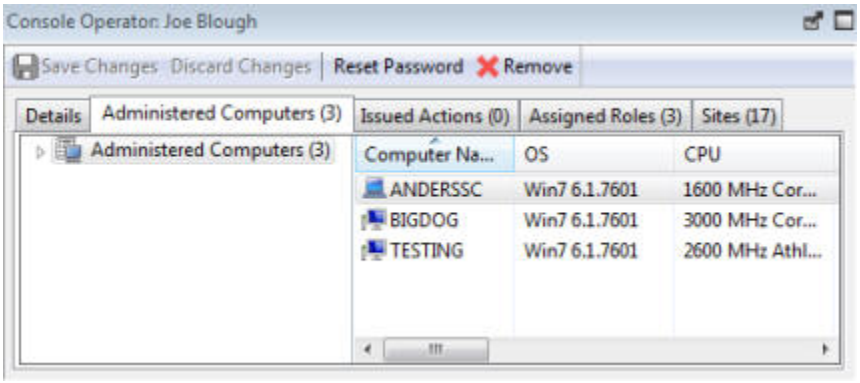
These online files provide a tutorial, a description of the program, and a full-text search capacity.

This dialog is available by selecting:

- **Help > Contents**

Console Operator: Administered Computers

The **Administered Computers** tab of the **Console Operator** document displays a filter/list of all the computers administered by the selected operator.



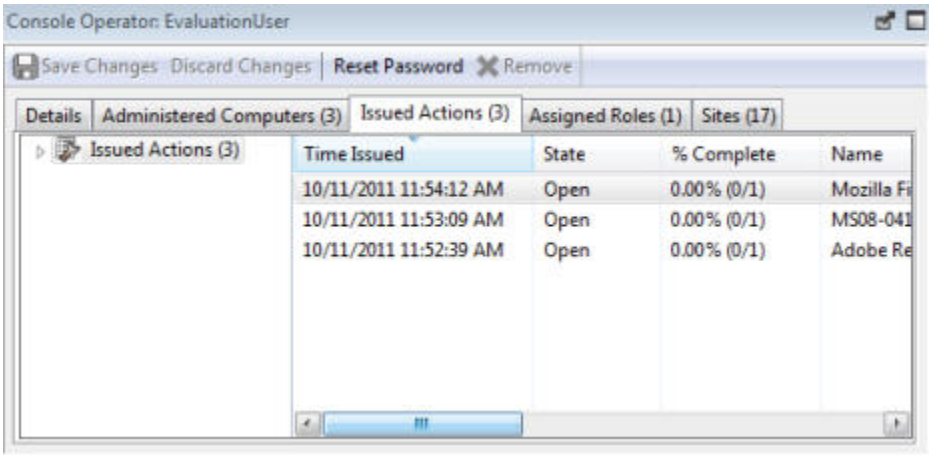
Note that the number of computers is displayed in the tab itself for viewing at a glance. As with any Computer List Panel, you can filter and sort it by retrieved properties and groups. This means you can use your own custom-created properties or groupings to parcel out administrative rights. You might use a retrieved property, for example, to match up specific applications to experts in your organization. Or you could connect departmental IT managers to their own domains, automatically.

This list is similar to other computer lists in the Console, but it is specific to the selected operator, letting you focus on one person at a time.

This dialog is available by clicking an operator from any Console Operator list and selecting the **Administered Computers** tab.

Console Operator: Issued Actions

The **Issued Actions** tab of the **Console Operator** document displays a filter/list of all the Actions that have been deployed by the selected operator.



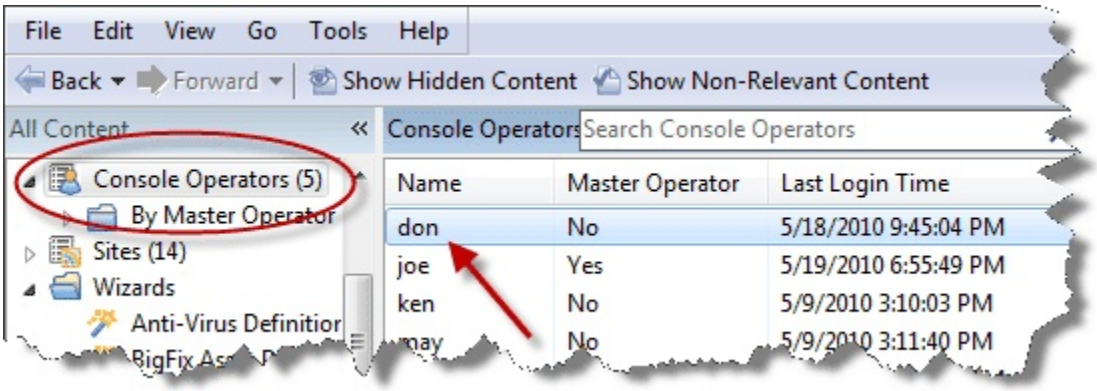
At the top of the dialog is the name of the operator. As with any Action list, you can filter and sort it by various properties, including State (open, expired) and Site. The current number of issued actions for this operator is displayed in the tab itself for easy viewing.

This list is similar to other Action lists in the Console, but it is specific to the selected operator, letting you focus on one person at a time. This interface also allows you to stop an action if it hasn't completed. Right-click the action you want to stop and select **Stop Action** from the pop-up menu.

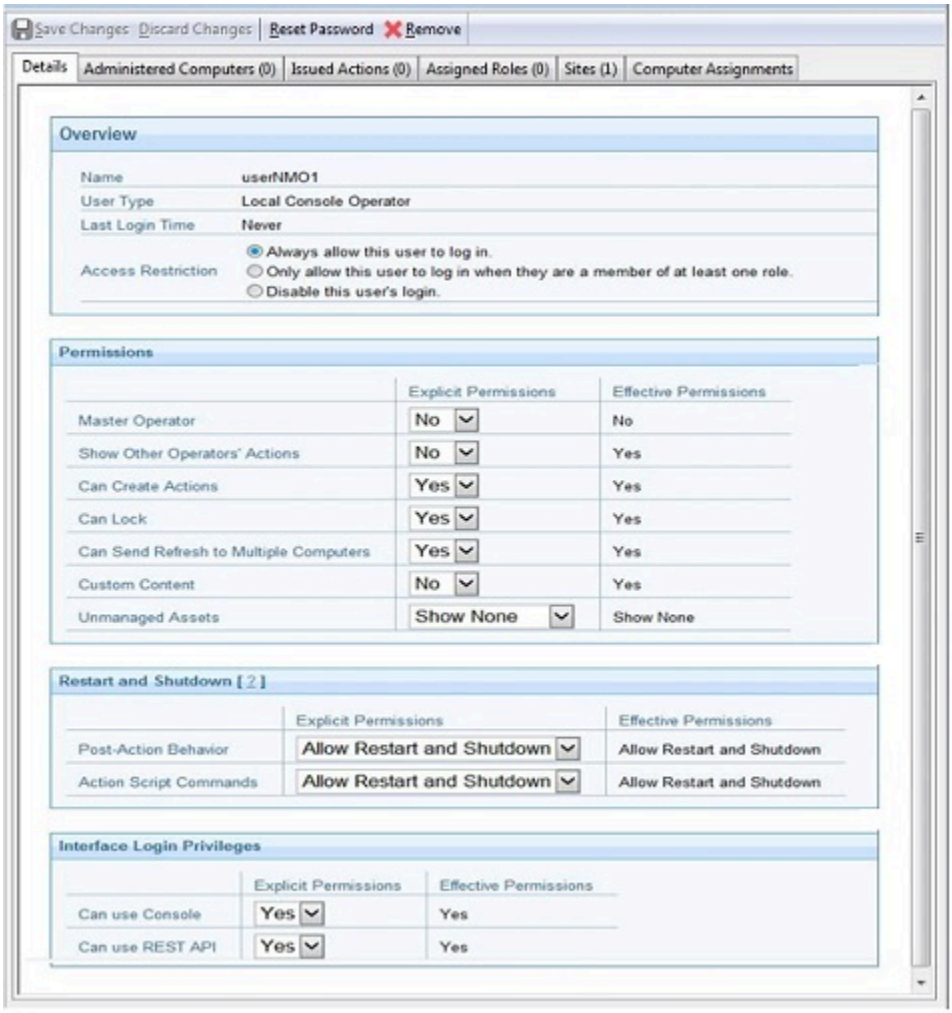
This dialog is available by clicking an operator from any Console Operator list and selecting the **Issued Actions** tab.

Console Operator List and Document

A list of Operators is displayed when you click **Console Operators**, or any of its child nodes, from the Domain Panel navigation tree.



A **Console Operator document** is displayed in the Work Area of the Console when you click any item from this list.



At the top of the Console Operator document is the name of the operator. The tabs underneath display at a glance how many computers are being administered by this operator and how many actions this operator has issued.

The tabs in a Console Operator document include:

- **Details:** A window outlining the permissions for this operator, including master operator, showing other operator actions, permissions to create action, to lock computers, to send refreshes to computers, to manage custom content and list unmanaged assets.

  You also decide to influence the ability of the operator to trigger restart and shutdown as Post-Action or to include them in BigFix Action Scripts. Depending on the configuration that you set for a specific operator for shutdown and restart, the radio button in the Take action panel might be disabled for that operator. This configuration has no effect on actions with type other than BigFix Action Script.

  You can also set permissions to access the BigFix Console and REST API.
- **Administered Computers:** A typical filter/list window containing all the computers under this operator's administration.
- **Issued Actions:** Shows what Fixlet actions have been applied by this Console Operator.
- **Assigned Roles:** Lists those roles associated with this operator.
- **Sites:** Lists those sites that can be administered by this operator.

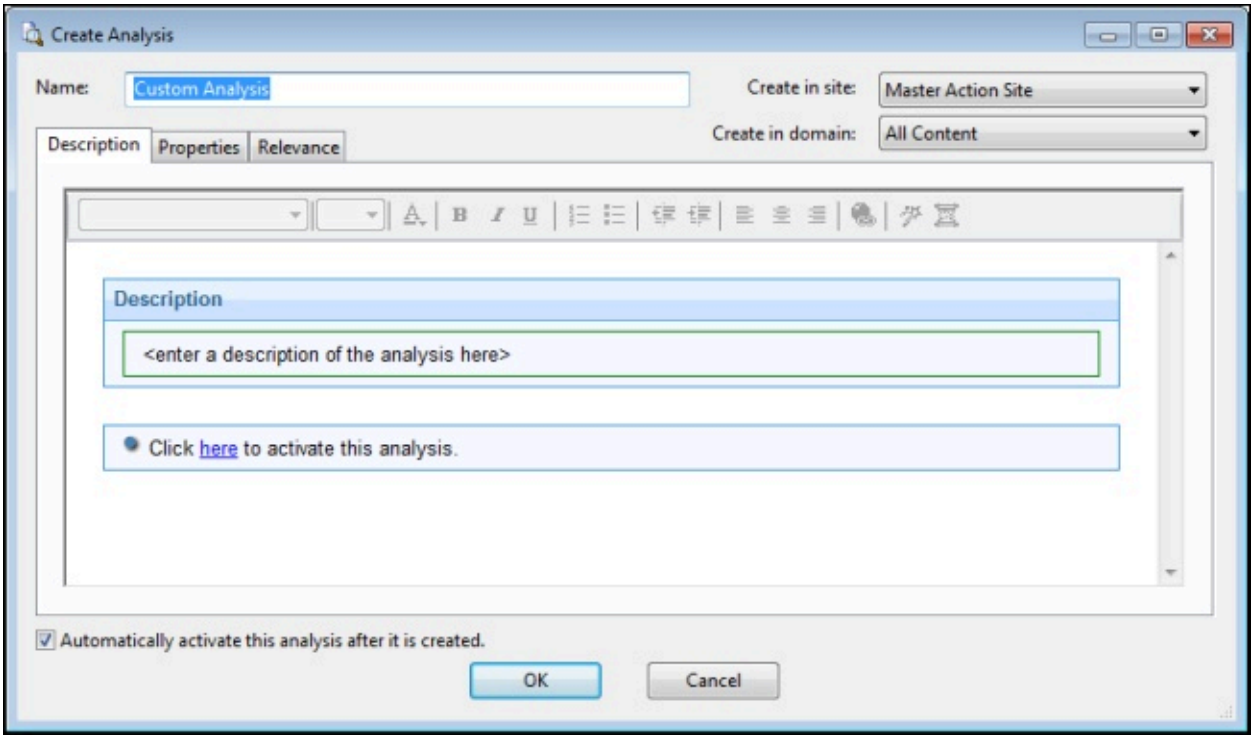
To display this Console Operator list, click the **Console Operators** icon (or any of its child nodes) in the Domain Panel navigation tree, then select an operator to view. After making any changes, make sure to click the **Save Changes** button.

Create Analysis

The **Create Analysis** dialog lets you deploy your own custom Analyses to monitor and audit properties across your managed network.

You can create an Analysis from scratch or you can edit an existing custom Analysis by selecting it from the list and choosing **Edit > Edit Custom Analysis**.

To create an original Analysis, choose **Tools > Create New Analysis**. The **Create Analysis** dialog opens.



There are three items at the top to help you identify your Analysis:

- **Name:** Enter the name of your custom Analysis.
- **Create in site:** From the pull-down menu, select a site (typically the Master Action Site) to host the Analysis.
- **Create in domain:** From the pull-down menu, select the Domain you want to house the Analysis.

Beneath these data fields, there are three tabs:

- **Description:** Create a user-readable title and message to accompany the Analysis you want to run. This is an HTML page, and you can use the text editing tools at the top to adjust the look of your Analysis.
- **Properties:** Specify retrieved client properties for your Analysis. Click the **Add Property** button, enter a name and a relevance clause. You can also specify an evaluation period for this property.
- **Relevance:** Specify the target client computers for your custom Analysis using a Relevance clause. The Analysis is applied to all computers where the Relevance clause evaluates to TRUE.

At the bottom of this dialog is a check box:

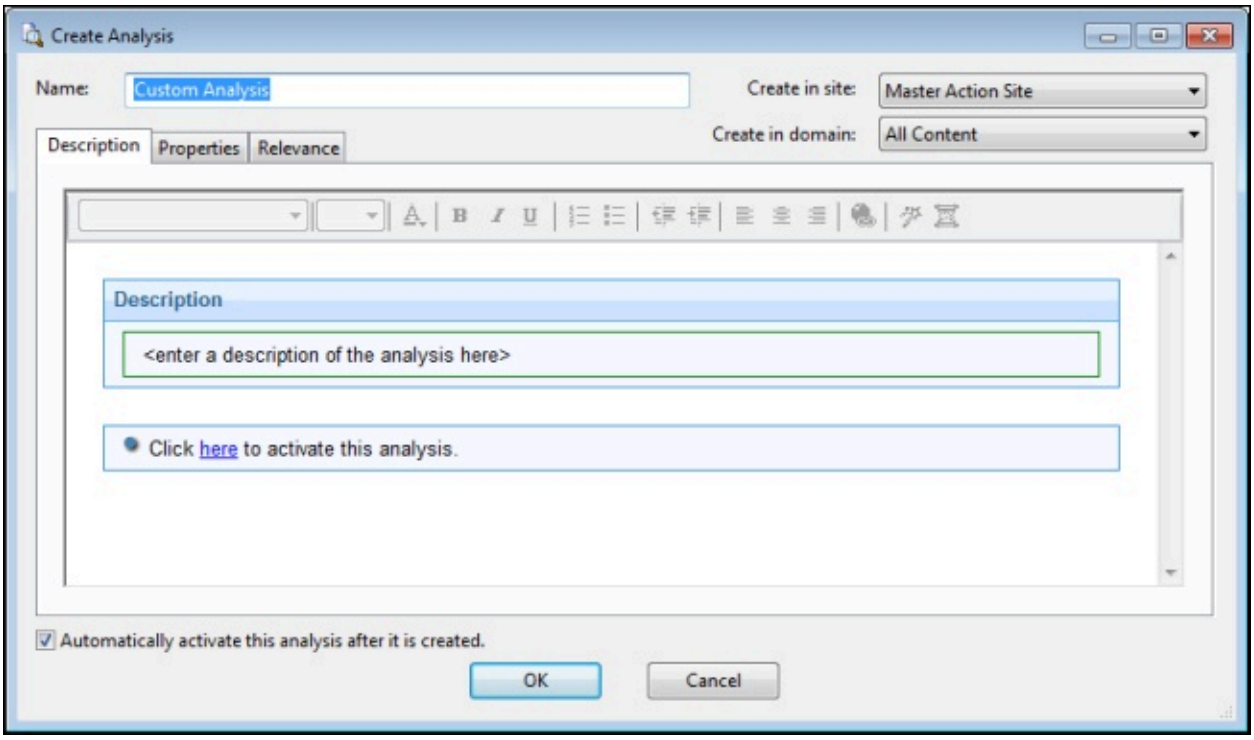
- **Automatically activate this analysis after it is created:** Check this box if you want to immediately propagate this Analysis when clicking the **OK** button. Leaving this blank lets you describe your Analysis without actually activating it.

You can create a new Analysis by selecting **Tools > Create New Analysis**, or by right-clicking in the Analysis window and selecting **Create New Analysis** from the context menu.

You can edit your existing custom Analyses by right-clicking on them and selecting **Edit** from the pop-up menu.

Create Analysis Description Tab

The **Description** tab of the **Create Analysis** dialog lets you define the html page for your custom Analysis.

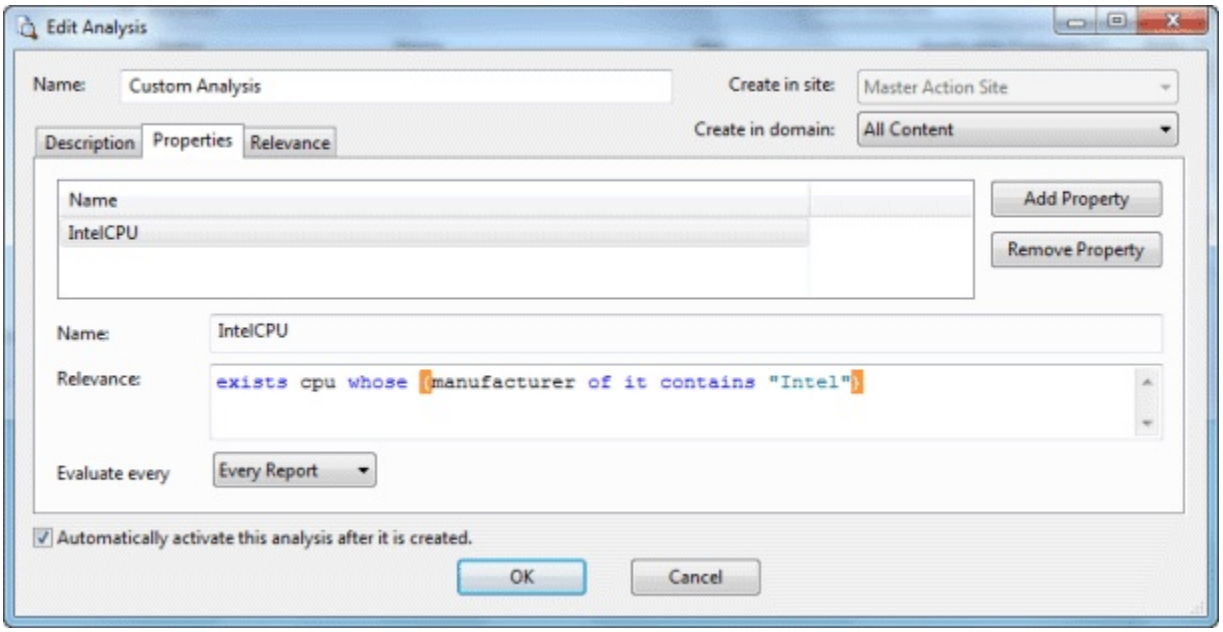


Enter the description of your custom Analysis in the first box. You can customize the second box as well, but the existing text is quite standard.

You can create a new Analysis by selecting **Tools > Create New Analysis**, or you can edit a custom Analysis by right-clicking it and selecting **Edit Custom Analysis** from the context menu. To clone and edit an existing Analysis, first right-click it, select **Export** from the context menu to save it, then select **File > Import** to bring it back in for editing.

Create Analysis Properties Tab

The **Properties** tab of the **Create Analysis** dialog lets you define the properties you want to analyze.



This is the customized heart of the Analysis, and is not the same as the Properties tab of the Fixlet, Task, or Baseline dialogs.

There are two buttons in the Property tab:

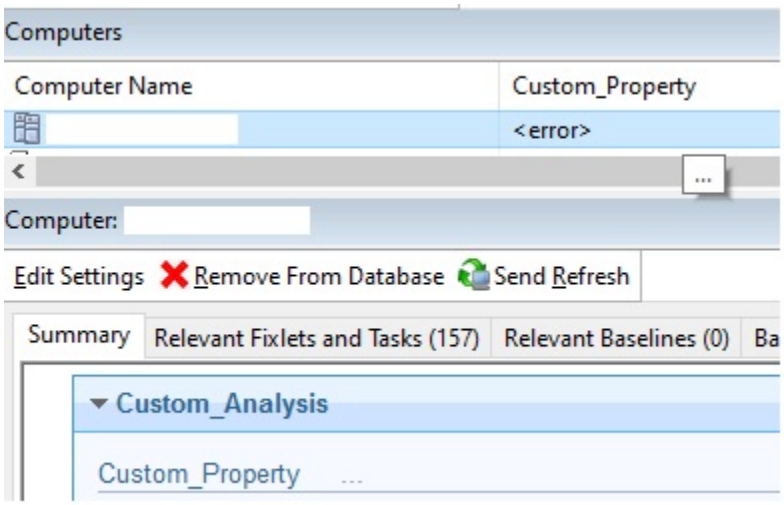
- **Add Property.** Click this button to add a new property to the Analysis. When you do, the text areas below becomes editable and you can define the property.
- **Remove Property.** Highlight a retrieved property from this list to the left and click Remove Property to delete this item from the Analysis.

After clicking the Add Property button, you must enter a **Name** for the property and a **Relevance** statement to retrieve the information. For example, you might want to retrieve the names of the administrators for each client. You might name the property "Client Admins" and use a Relevance expression like "names of administrators of client".

You can also set the schedule for the analysis from the **Evaluate every** pull-down menu. The default is to update the property value whenever a report is requested. But you can also set it to any regular period between 5 minutes and 30 days.

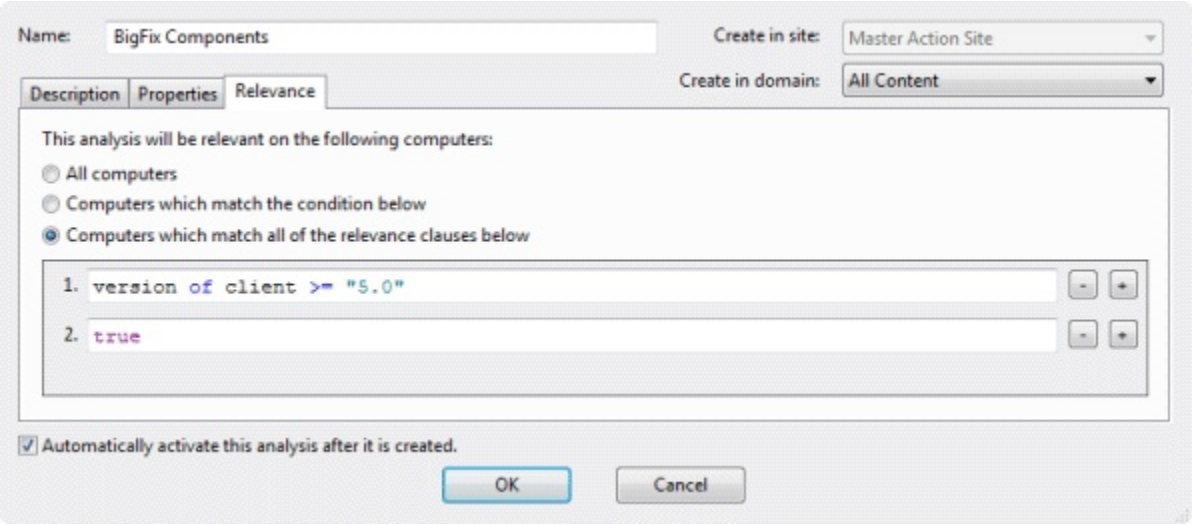
You can create a new Analysis by selecting **Tools > Create New Analysis**, or you can edit a custom Analysis by right-clicking it and selecting **Edit Custom Analysis** from the pop-up menu or from the **Edit** menu.

Note: If the result of the property used in your analysis exceeds 1024 characters, the client considers it an error, and the BES Console will display "..." for that property on the summary page for the computer.



Create Analysis Relevance Tab

The **Relevance** tab of the **Create Analysis** dialog lets you define a relevance clause to determine the applicability of your custom Analysis to specific computers.



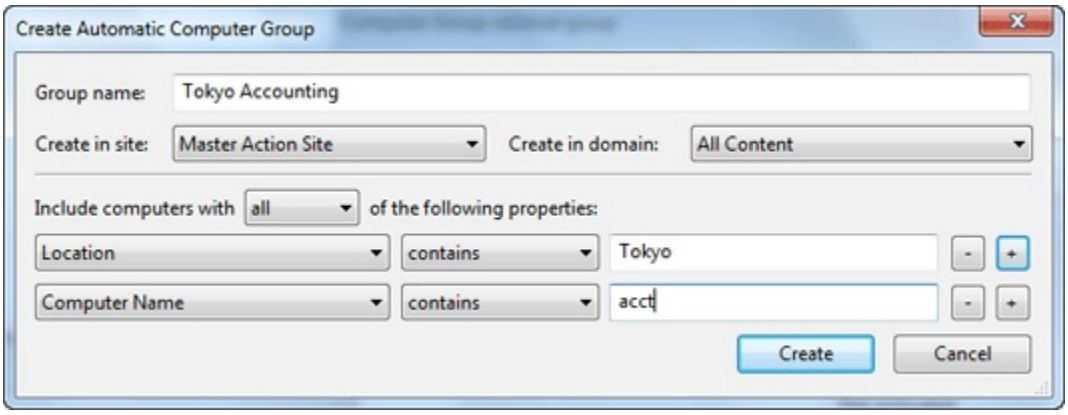
You can choose from three relevance options:

- **All computers:** This is the default choice and analyzes the properties you specify on all of the BigFix Clients in your network.
- **Computers which match the condition below:** When you select this choice, you can select from several pre-defined properties to identify a subset of Clients for analysis.
- **Computers with match all of the relevance clauses below:** This choice lets you specify a computer with a custom relevance statement. This is the most powerful of the available choices, and lets you easily narrow down the computers to analyze.

You can create a new Analysis by selecting **Tools > Create New Analysis**, or you can edit a custom Analysis by right-clicking it and selecting **Edit Custom Analysis** from the context menu. To clone and edit an existing Analysis, first right-click it, select **Export** from the context menu to save it, then select **File > Import** to bring it back in for editing.

Create Automatic Computer Group

This dialog allows you to create rules that automatically enlist specific computers in a group.



It has the following parts:

- **Computer Group Name:** This is a text box to enter the name of your group. This is listed in the name column of any computer group listing.
- **Create in site:** This is a pull-down menu listing the site you want to host the computer group.
- **Create in domain:** This is a pull-down menu listing the domain you want to host the computer group.
- **Include computers with [any/all of] the following property:** This option lets you specify a condition that must evaluate to true before the computer becomes a member of the group. If there is more than one condition, this option includes a pull-down menu allowing you to use **any** or **all** of the conditions listed. Three fields are used to define a condition:
    - **The retrieved property:** select a property from the pull-down list containing dozens of pre-defined retrieved properties. Note that there are two other options at the top of this list.
        - Select **Relevance Expression** from the top of the list, select **is true** or **is false** from the relationship pulldown and then click the **Edit Relevance** button to define a custom relevance expression to base your group on.
        - Select **Group Membership** from the property list, select the desired membership option, and then select a manual group from the pull-down list to the right.

- **The relationship:** Select from the four available comparison operators: contains, equals, does not contain, and does not equal. Depending on the particular retrieved property, there might be other relationships available.
- **The value:** Enter a value to be compared to the value of the retrieved property. If the comparison is true, the Baseline becomes relevant on the specified computer. For example, to create a group that automatically enlists Windows computers, enter **OS contains Win**.

There are two buttons used to edit the list of conditions:

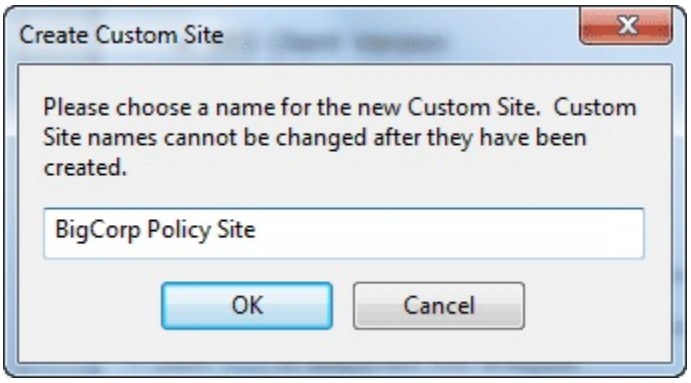
- **Plus (+):** Click this button to add a new condition to the list. When there are two or more conditions, notice that the radio button above includes a pull-down menu allowing you to trigger on any or all of the conditions in the list.
- **Minus (-):** Click this button to delete the condition associated with it.

Click **OK** and enter your password to propagate the new Automatic Computer Group to be listed in the Computer Groups tab.

This dialog is available by clicking **Create New Automatic Group** from right-click context menu in the Computer Groups tab or select **Tools > Create New Automatic Group**.

Create Custom Site

This dialog lets you name your own **Custom Site**.



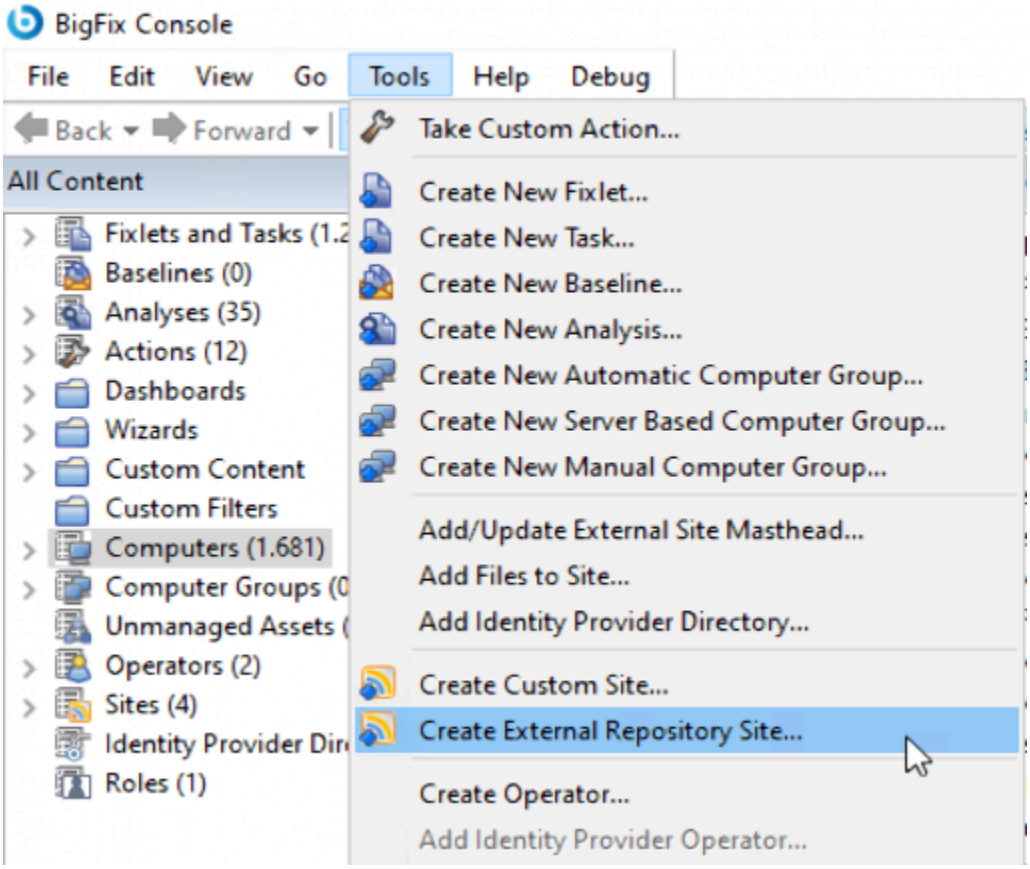
Enter the name of your site and click **OK**. This opens the **Custom Site** dialog, where you can finish defining your site.

To create a custom site, select **Tools > Create Custom Site**.

Create Repository Site

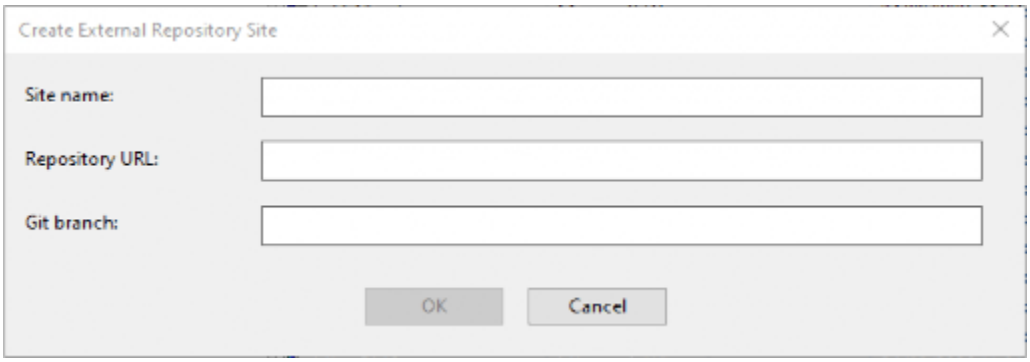
This dialog, available starting with BigFix 11.0.7, lets you create an external repository site.

To create an external repository site, select **Tools** > **Create External Repository Site...**



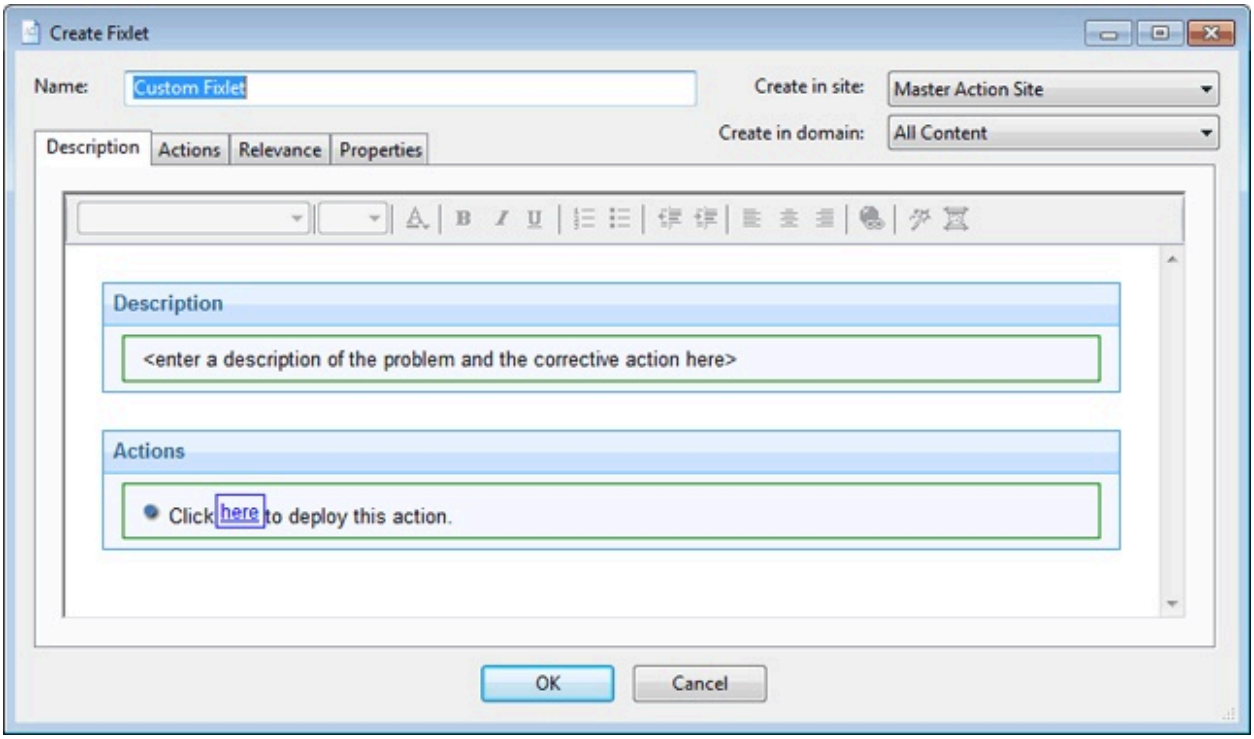
This opens the **Create External Repository Site** dialog, where you can specify:

- The **Site name**: (Required) Identifies the BigFix site.
- The **Repository URL**: (Required) Identifies the SSH URL, for example git@host:organization/content.git or ssh://...
- The **Git branch**: (Optional) You can leave it empty to use the repository default branch.



Create Fixlet or Task

The **Create Fixlet** and **Create Task** dialogs are similar and allow you to create or customize a Fixlet or Task.



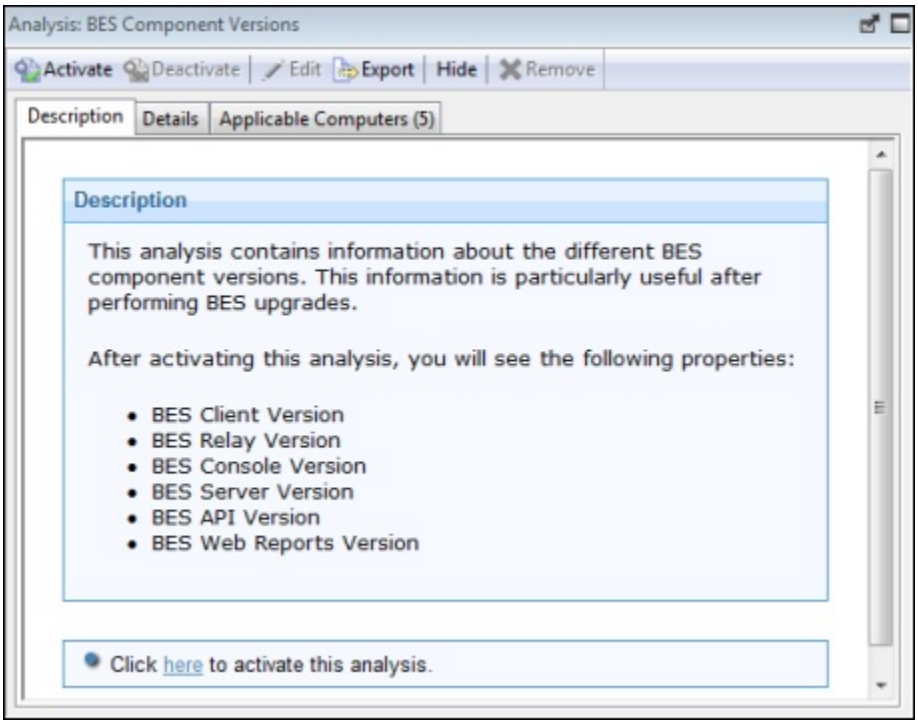
There are several tabs to help you define or edit your Fixlet or Task.

- **Description:** Enter your descriptive text in this box. You can use the text manipulation toolbar at the top of the dialog to enhance the formatting.
- **Actions:** Define your action in this dialog. Use the buttons at the right to add, delete, or change the position of the action. Below that is an area to customize the properties of the action. Choose the **Script Type** from the drop-down menu. Below that is a text box where you can enter a new action script or modify the original. There are three check boxes you can use to modify the action:
    - **This action is the default action.** Click this box to create a **default action**.
    - **Include action settings locks**. Click the Edit box to the right of this check box to customize the action setting locks, including start time, end time, day exclusions, and more. This panel also includes failure and reapplication behaviors.
    - **Include custom success criteria**, which allows you to specify the conditions that define the success of the action.
- **Relevance:** Leave the default of applying to **All computers**, or click a different button and enter a condition or a relevance statement in the dialog below. This is how you target your Fixlet or Task to relevant computers. For more information about the relevance language, see the ***Inspector Libraries***.
- **Properties:** Set the properties of your Fixlet or Task, including the category, download size, date, severity, and more. You can also include the SANS (SysAdmin, Audit, Network, Security) or CVE (Common Vulnerabilities and Exposures) ID numbers.

You can create a custom Fixlet or Task by selecting **Tools > Create New Fixlet** or **Task**, or you can edit an existing Fixlet or Task by right-clicking it from the List Panel and then selecting **Create Custom Copy** from the context menu.

Description Tab

The **Description** tab provides an English-language description of the selected **Fixlet**, **Task**, **Analysis**, or **Baseline**.



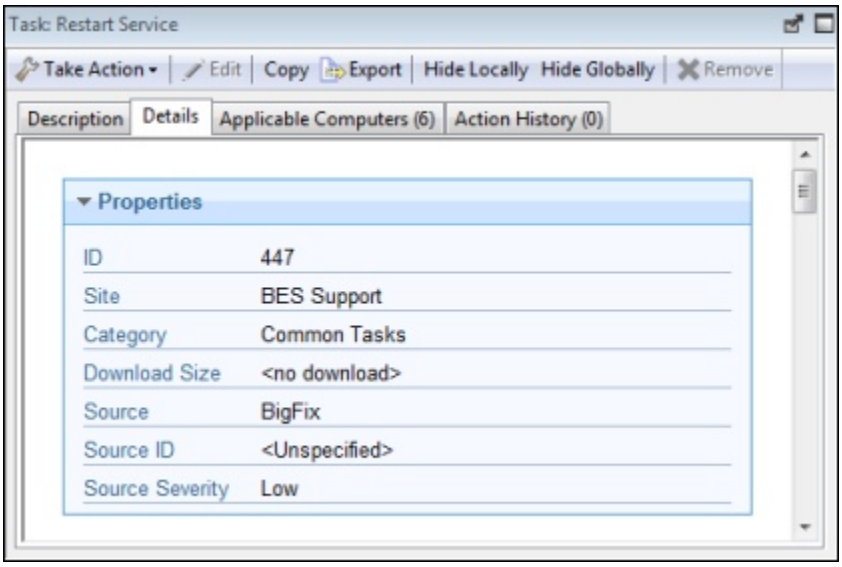
It typically provides one or more actions (in the form of links) that can be run to install a patch, change a registry, update an application, run an analysis, and so on.

Click the link to deploy the action or analysis across your network. For Fixlet messages, when an Action completes, the initiating Fixlet usually disappears because the problem no longer pertains. Tasks, Baselines, and Analyses, on the other hand, continue to stay activated until you terminate them.

This dialog is available by clicking a Fixlet, Task, Analysis, or Baseline icon in the Domain Panel navigation tree, selecting an item from the List Panel, and clicking the **Description** tab.

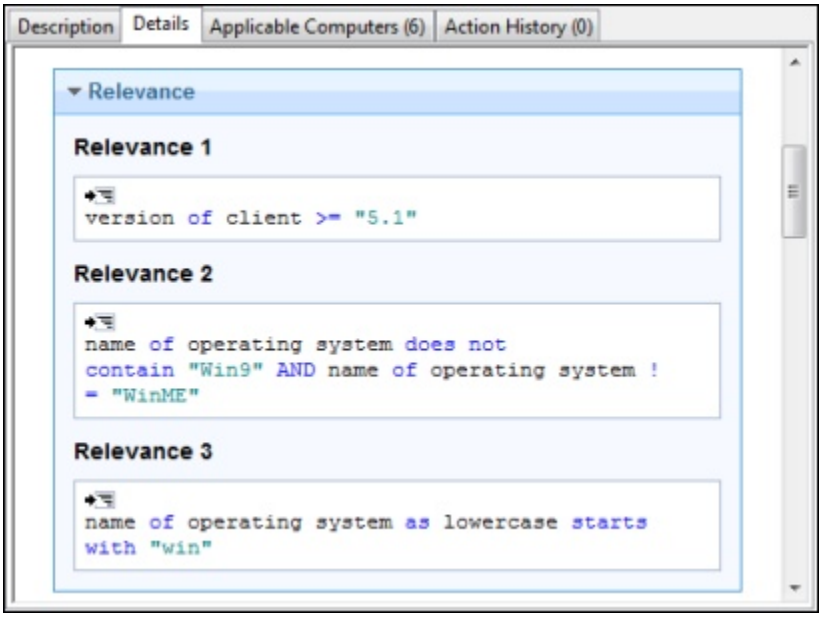
Details Tab

The **Details** tab shows you the mechanics behind the selected **Fixlet**, **Task**, **Analysis,** or **Baseline** object.



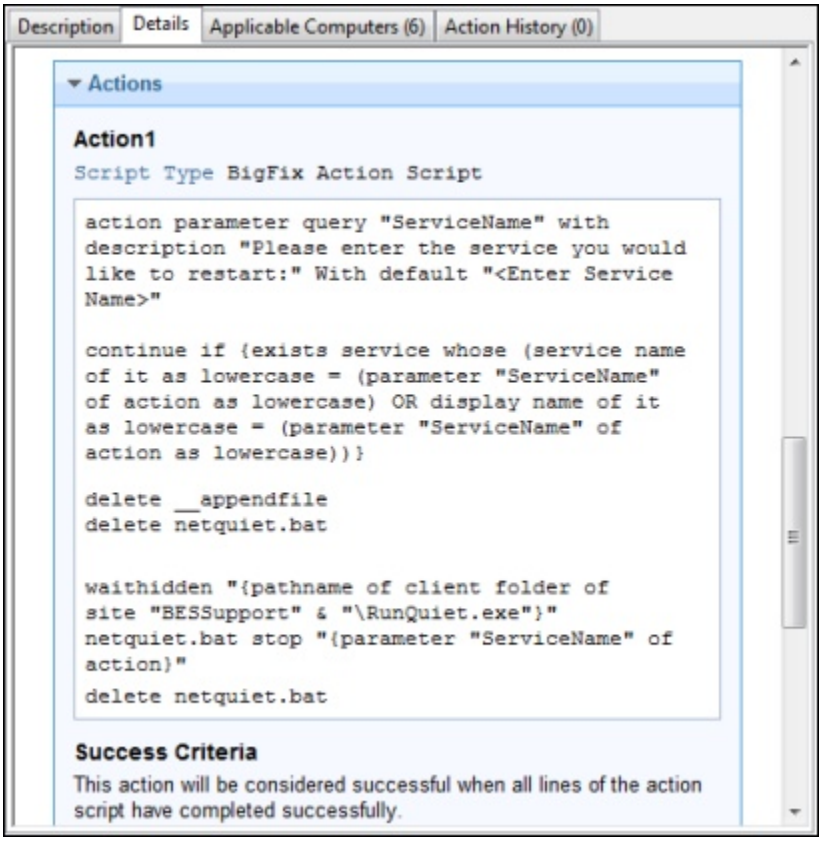
It includes several sections describing various aspects of the Fixlet message:

- **Properties:** As seen above, this section lists various properties of the Fixlet, Task, or Baseline, including Category, Download Size, Severity, and more. These properties are defined manually when the object is created.
- **Relevance:** This section displays the Relevance expressions that are used to determine the relevance of an individual Fixlet message or Task.

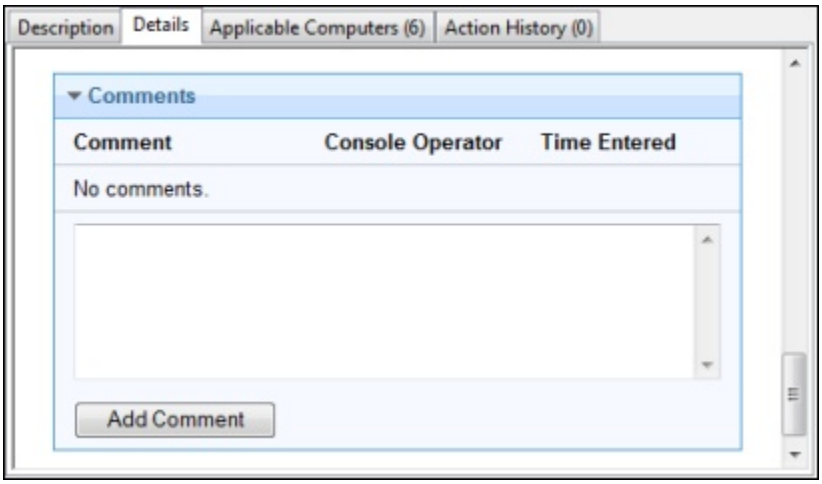


This example has multiple statements that must all be true for the item to be considered Relevant to any particular BigFix Client. For a Baseline, this is an 'envelope' expression that determines the overall relevance of the group. Only if the group is applicable is the relevance of the constituent Tasks and Fixlets analyzed. This is the core information for an Analysis, which evaluates the Relevance expression and retrieves that value.

- **Actions:** This section displays the code to be run if an action is deployed from either a Fixlet or a Task.



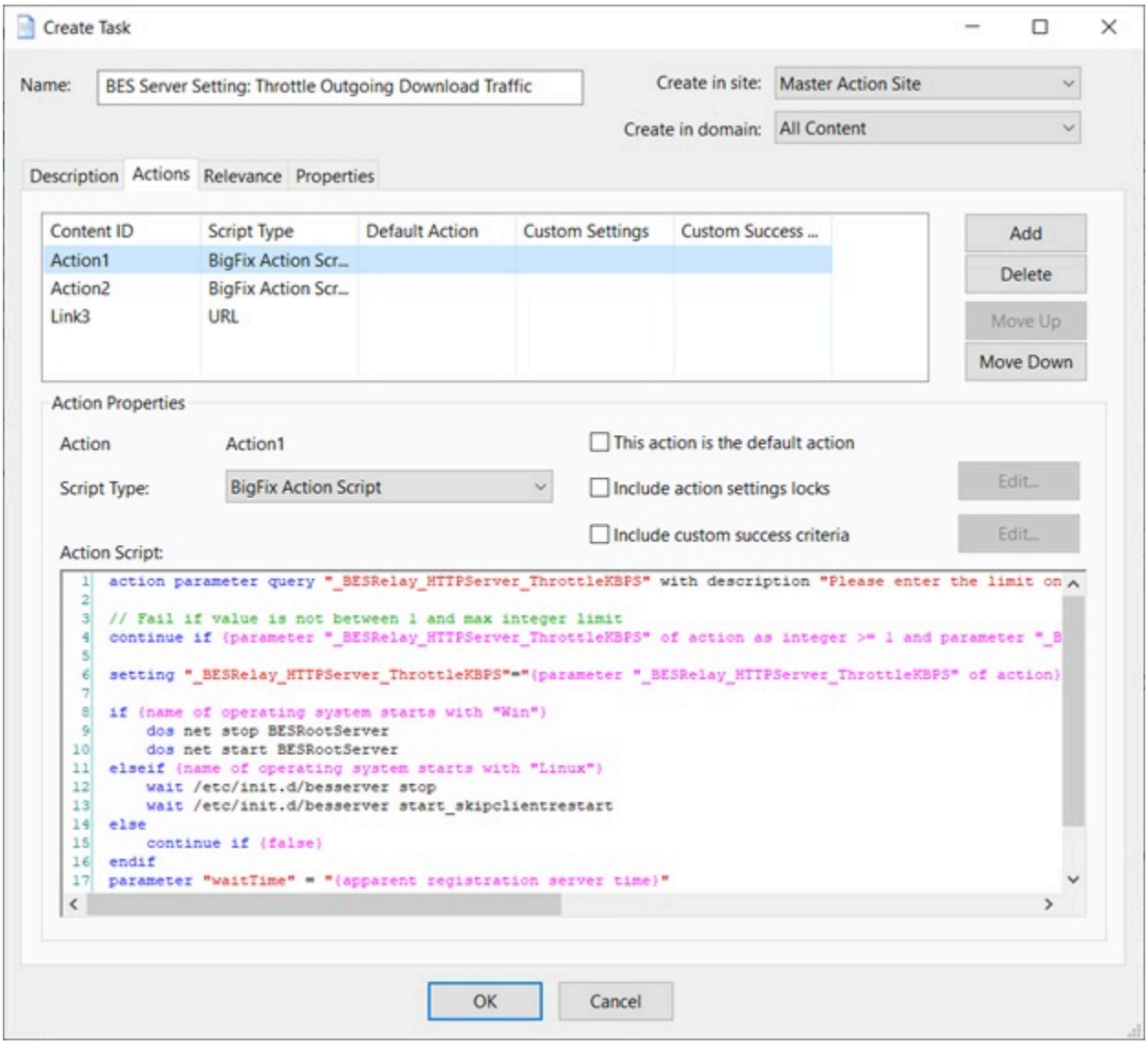
- **Comment:** This section lets you attach comments to the Fixlet, Task, or Baseline.



This dialog is available by clicking a Fixlet, Task, Analysis, or Baseline icon in the Domain Panel navigation tree, selecting an item from the resulting List Panel, and clicking the **Details** tab.

Edit Actions Tab

The **Actions** tab of the **Creation/Edit** dialogs lets you create Actions for your new or customized **Fixlet** or **Task** object.

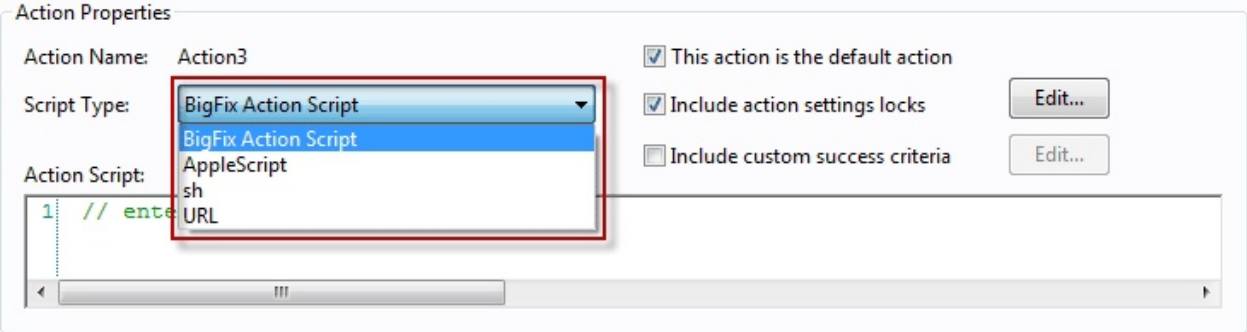


The Actions you create here become the clickable links in the finished Task or Fixlet, and they are deployed on the appropriate computers of your network. The Actions are listed in their display order at the top of the dialog. To the right of the list is a set of buttons:

- **Add:** Click this button to create a new Action. It creates a new numbered entry in the top list and opens a blank text box for you to write your Action script.
- **Delete:** Select an item from the list and click this button to Delete it.

- **Move Up:** Moves the selected Action up in the list, meaning that it is displayed earlier.
- **Move Down:** Moves the selected Action down in the list, meaning that it is displayed later.

For each Action, you can edit the type, certain settings, and the script itself.



Select an **Action Script Type** from the pull-down menu. Among the choices are:

- **BigFix Action Script:** This is a cross-platform scripting language, and is the default scripting type.
- **AppleScript:** This is the scripting language of choice for managing Macintosh computers.
- **sh:** This is shell script as used by a UNIX system.
- **URL:** This is a URL pointing to an appropriate script or informational web page. When an Action is created as a URL, it is listed as a numbered Link.
- **PowerShell:** Starting from version 10.0.4, BigFix gives you the possibility to run PowerShell scripts too.

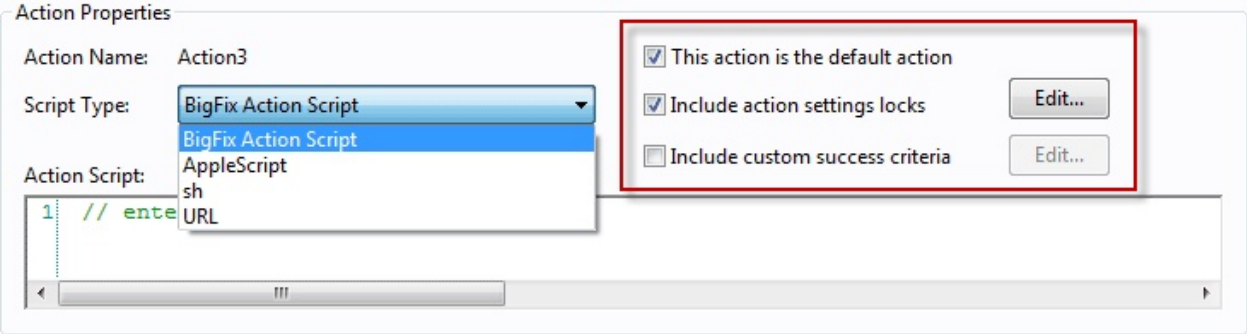
  You can run on a selected Windows Client the script that you write in the **Action Script** text box. The script runs on the PowerShell installed by default by your Windows operating system in the `C:\Windows\System32\WindowsPowerShell\v1.0` directory, if available, or in `C:\Windows\SysWOW64\WindowsPowerShell\v1.0`.

  The script is executed by default using the **-ExecutionPolicy Bypass** option. To avoid using this option, you can use the

`_BESClient_PowerShell_DisableExecPolicyBypass` client setting described in the Miscellaneous section of the List of settings and detailed descriptions page.

Since they are executed in hidden mode, PowerShell scripts requiring user interaction or showing pop-up windows or dialog boxes are not supported and might cause the action to remain in running status or the script to display an error in the log file.

There are some more properties you can use to modify any Action.



Check one or more of the following boxes to customize each action:

- **This Action is the default Action:** Check this box to make the selected Action the default for this group of Actions. Default Actions must be failsafe and simple, making it reasonable to launch them unattended or to group them for simultaneous deployment.
- **Include Action Settings Locks:** Check this box to use custom settings and locks, including display messages, users, execution behavior, and post-actions. Click the **Edit** button to open the **Action Settings** dialog with a lock next to each item. Click the locks to keep these values from being changed.
- **Include Custom Success Criteria:** Typically a Fixlet is designed so that completing an Action makes it fail the initial Relevance test. Because this test is typically triggered by a vulnerability, its failure indicates successful remediation, therefore causing the Fixlet to disappear from the Console. However, you can select other criteria to establish success by checking this box. Click the **Edit** button to open the **Action Success Criteria** dialog and key in your alternative criteria.

In the bottom text box, enter the actual text of the **Action Script.** The style varies depending on the script type you chose in the previous section. Because they can be potentially distributed to hundreds of thousands of computers, it is always advisable to test and test again.

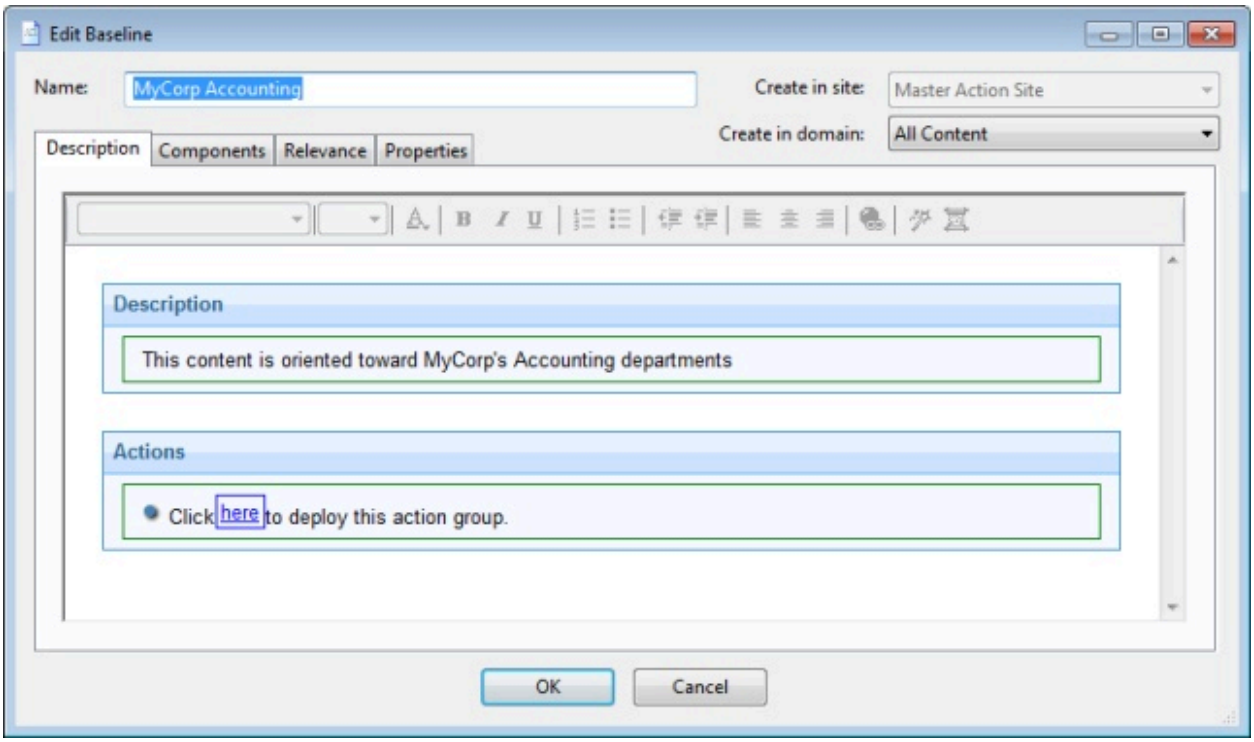
This dialog is available by clicking the Fixlet, Task, or Baseline icon in the Domain Panel navigation tree. Right-click an item in the resulting List Panel and select **Create Custom Copy** from the context menu.

Alternatively, select the **Create** item you want from the **Tools** menu.

Edit Baseline

The **Edit Baseline** dialog.

Baselines are groups of Fixlet messages, Tasks, and other Baselines that you want to run with a single mouse-click.



For example, a Baseline might be created to group all your application patches or security issues together to ensure a common operating environment. You can create a Baseline from scratch, or clone or edit an existing Baseline.

When you select this interface, you are presented with a dialog with three input items at the top:

- **Name:** Enter the name of your Baseline.
- **Create in site:** From the pull-down menu, select a host site.
- **Create in domain:** From the pull-down menu, select a host domain.

Beneath these data fields, there are four tabs:

- **Description:** Create a user-readable title and description for the Baseline you want to deploy.
- **Components:** Specify the components, namely the Fixlet messages, Tasks, and other Baselines, that you want to group into this Baseline.
- **Relevance:** Create a relevance clause to target this Baseline to just the subset of computers you want. Because each component of your Baseline has its own Relevance clause, the default Relevance is set to TRUE.
- **Properties:** Specify certain properties for your Baseline, including category, source, severity, and date.

To create a new Baseline from scratch, select the following:

- **Tools > Create New Baseline**

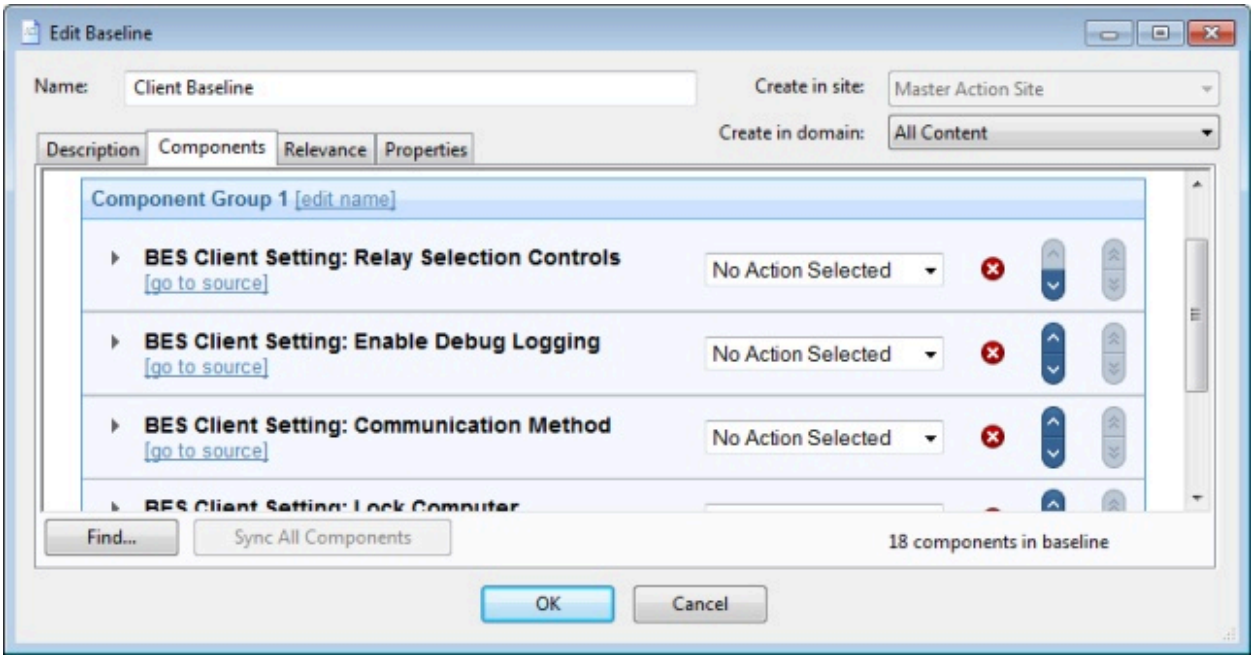
You can also customize an existing Baseline by selecting it from any Baseline list and then choosing:

- **Edit > Create Custom Copy**

Alternatively, right-click in a Baseline list and select **Create Custom Copy** or **Create New Baseline** from the context menu. Similarly, you can edit an existing custom Baseline by selecting **Edit Custom Baseline** from the right-click context menu.

Edit Components Tab

The **Components** tab of the **Edit Baseline** dialog lets you specify a group of Fixlet messages and Tasks that you want to add to your Baseline.



Click the link to **add components to group** and then select Fixlets, Tasks, and other Baselines to place into your group. Use the **edit name** link to name the group. You can place all your components into a single group or click the **add new component group** link to add structure to your Baseline. Click the red X to delete the associated component, and use the up (^) and down (v) arrows to change the order of the components in the list.

Check the box next to **Use custom action settings** if you want to modify the Baseline Action settings. Click the **set action settings** link to open the **Action Settings** dialog.

The components of a Baseline are copies of the original Fixlet or Task, not pointers. As such, if the underlying Fixlet or Task changes, the Baseline might become out of sync with the original. If this happens, the message **Source Fixlet differs** is shown in the component listing.

At the bottom of this dialog, there is a **Find** command that opens a dialog for you to enter a search string and options such as match whole word, match case, and search direction. It allows you to easily search through the components of your Baseline.

There is also a **Sync All Components** button. This forces all of your Baseline components to sync up with the latest versions of their sources, in case they have changed.

To create a new Baseline from scratch, select the following:

- **Tools > Create New Baseline**

You can also customize an existing Baseline by selecting it from any Baseline list and then selecting:

- **Edit > Create Custom Copy**

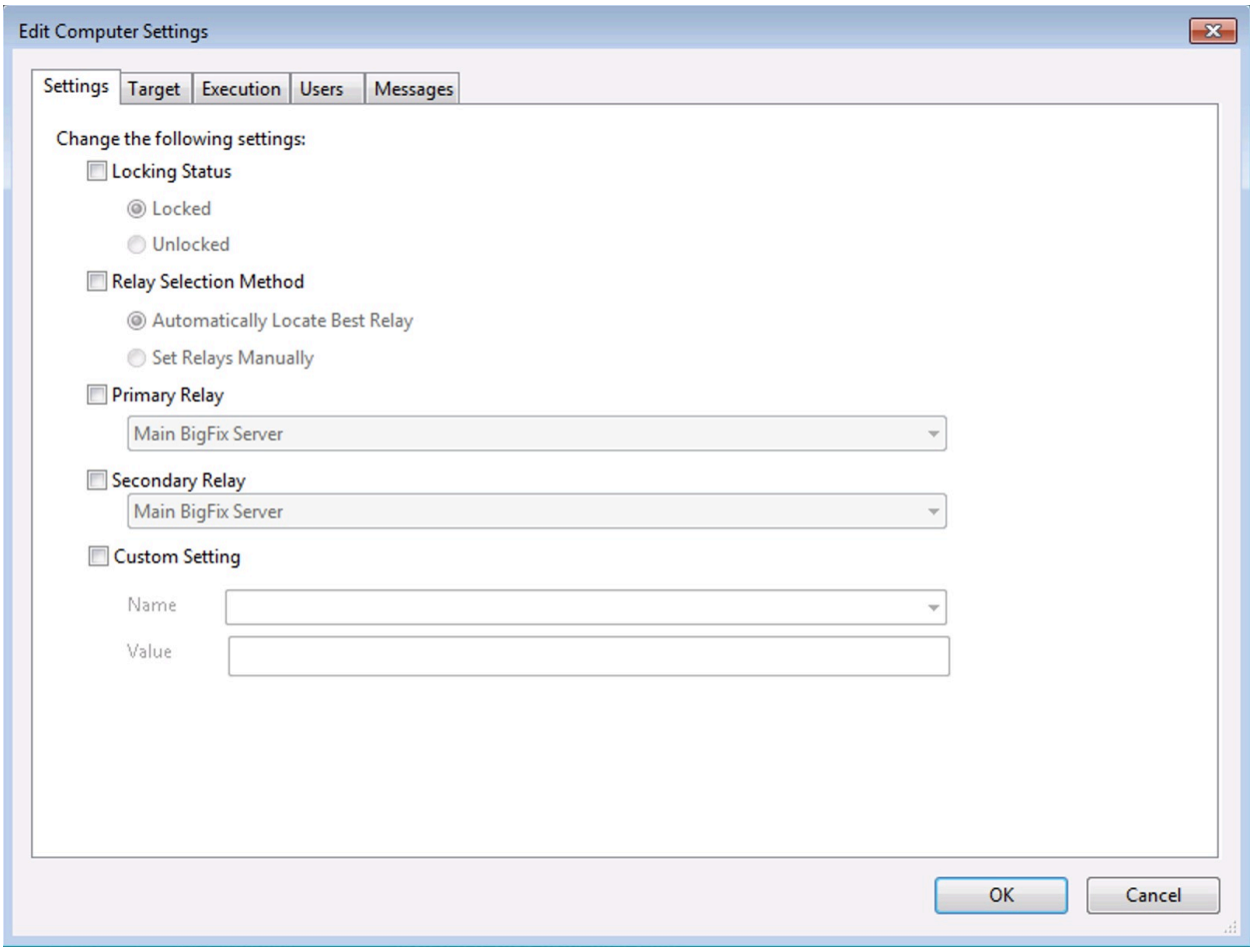
Alternatively, right-click in a Baseline list and select **Create Custom Copy** or **Create New Baseline** from the context menu.

Edit Computer Settings

The **Edit Computer Settings** dialog allows BigFix Console operators to change certain computer attributes on a single or specified set of computers, including locking, making the client a Relay, pointing to Relays, and creating custom settings.

Note: If you select multiple targets, then you select their settings, and modify the value of the password in some of their fields, for each target the product will manage the modification according to what is supported by the level of the Client.

Note: When you use the **Edit Computer Settings** dialog with workstations V9.5 or earlier versions, you must use only ASCII characters otherwise the Console might not display correctly non-ASCII characters.



There are five tabbed dialogs on this panel to target and customize the settings for a selected group of Clients:

- **Settings:** Displays a group of controls to edit computer settings, such as the locked status, relays, and custom variables.
- **Target:** Displays a filter/list of computers that can be edited, filtered, sorted, and grouped for specifically targeted settings.
- **Execution:** As with other Actions, you can limit the activation of the settings to any schedule, keeping in mind that the Action might take some time to deploy. When applied, the settings remain until removed. You can also specify certain user interactions and add extra targeting based on the contents of retrieved properties.

- **Users:** Allows you to specify whether or not you want a user to be logged on before activating the settings.
- **Messages:** Allows you to issue a message to the BigFix Client before activating the settings.

When multiple computers are selected, this dialog is available by right-clicking and selecting **Edit Computer Settings** from the context menu (or select **Edit Computer Settings** from the **Edit** menu).

Edit Description Tab

The **Description** tab of the **Creation/Edit** dialogs lets you describe your new or customized **Fixlet**,**Task**, **Analysis**, or **Baseline** object.

- Enter a custom **Description** for the body of your descriptive message. Click the description in the HTML page to modify it.
- Below the Description box is the text describing the **Action**s you can attach to this Fixlet, Task, or Baseline. The Action is a clickable link in the Description page. Click the text to modify it, although the default text is usually sufficient.



Note: For an Analysis, this link activates the retrieval of the specified Properties. Activation involves the running of an Action, but in the case of an Analysis, it is a benign Action that creates a property that can be read by the Console.

This dialog is available by clicking the Fixlet, Task, or Baseline icon in the Domain Panel navigation tree. Right-click an item in the resulting List Panel and select the appropriate **Create** option from the context menu.

Alternatively, select the **Create** item from the **Tools** menu.

Edit Fixlet Message

The **Edit Fixlet Message** dialog allows you to create your own custom Fixlet messages. You can create a Fixlet message from scratch or clone an existing one and customize it.

To create an original Fixlet, choose **Tools > Create New Fixlet**. You are presented with a dialog with three text boxes at the top:

- **Name:** Enter the name of your custom Fixlet message.
- **Create in site:** From the pull-down menu, select the BigFix site you want to host it.
- **Create in domain:** From the pull-down menu, select the Domain you want to host this Task.

Beneath these data fields, there are four tabs:

- **Description:** Create a user-readable title and description for the Fixlet you want to deploy. If you are cloning an existing Fixlet, the original title and description is the default. This is an HTML page, and you can use the toolbar at the top to alter fonts and formatting.
- **Actions:** Specify the actions for your custom Fixlet to run.
- **Relevance:** Create a relevance clause to target this Fixlet to a subset of computers you choose. For a cloned Fixlet, the original relevance clause is the default. You can replace or modify the relevance clause to suit your network needs.
- **Properties:** Specify certain properties for your Fixlet, including Category, Download Size, Source, Severity, and Date.

To create a new Fixlet message from scratch, select the following:

- **Tools > Create New Fixlet**

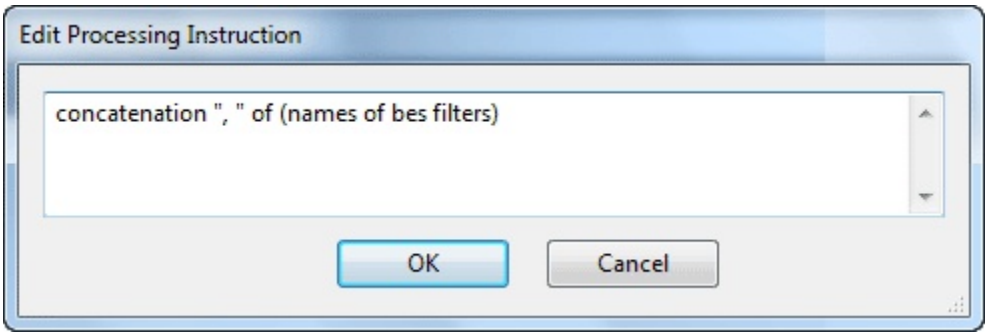
You can also customize an existing Fixlet message by selecting it from any Fixlet list and then selecting:

- **Edit > Create Custom Copy**

Alternatively, right-click in a Fixlet list and select **Create Custom Copy** or **Create New Fixlet Message** from the pop-up menu.

Edit Processing Instruction

The **Edit Processing Instruction** dialog lets you write a Relevance Expression that can be embedded into the text portion of a Fixlet, Task, Analysis, or Baseline.

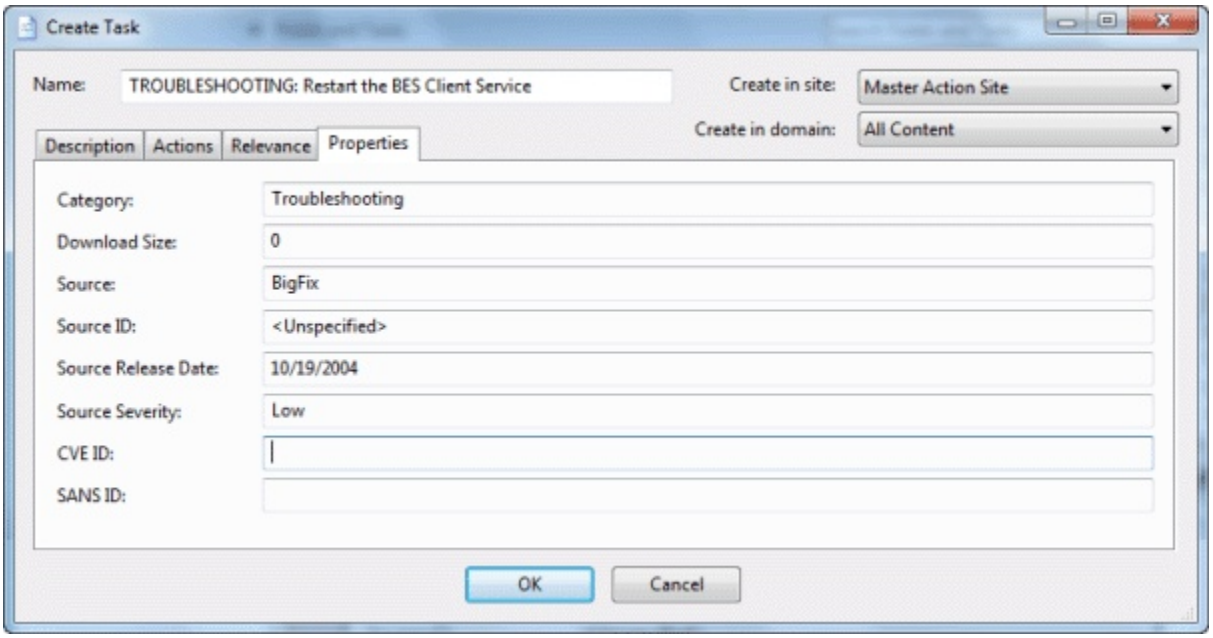


You can enter the expression as straight text, HTML, or Presentation (XML) style.

This dialog is available whenever you create a new or custom Fixlet, Task, Baseline, or Analysis. In the description tag, enter your text, and then from the toolbar at the top, click the magic wand . This opens the **Edit Processing Instruction** dialog.

Edit Properties Tab

The **Properties** tab of the **Creation/Edit** dialogs lets you assign certain important properties to your new or customized **Fixlet**,**Task**, or **Baseline** object.



There are a series of text fields that you can use to describe the various possible properties:

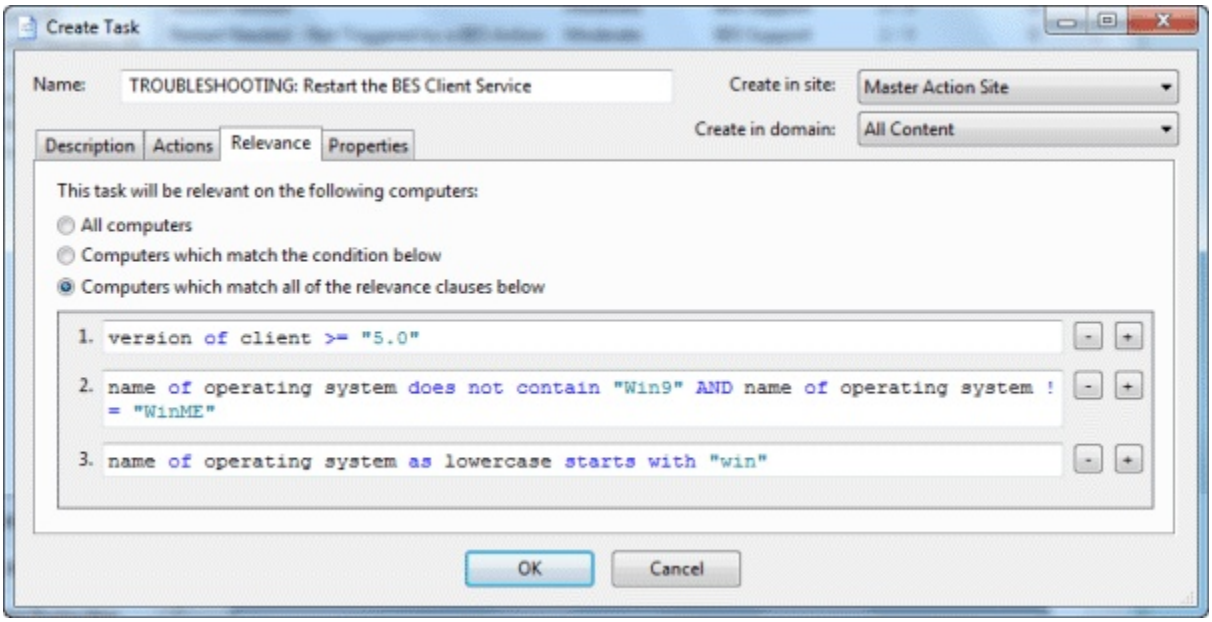
- **Category:** There are many categories you can file your Fixlet, Task, or Baseline objects under, including the standard ones such as Setting, Update, Support, and more. If you want, you can create new settings also for your particular installation.
- **Download Size:** If a download is associated with your Fixlet, Task, or Baseline, you can enter the size here. This allows you to sort, filter, and keep track of the bandwidth requirements of your various custom-designed objects.
- **Source:** This is the source of the Fixlet, Task, or Baseline. For a custom object, this is typically a name chosen by the BigFix Administrator, usually **Internal**.
- **Source ID:** This is an ID associated with the source described above. For an Internal source, the ID is typically blank.
- **Source Release Date:** Enter the release date of this Fixlet, Task, or Baseline to manage these objects by age.
- **Source Severity:** Enter the severity of the Fixlet, Task, or Baseline, typically from a list including Low, Moderate, Important, and Critical.
- **CVE ID:** Enter the ID for the **Common Vulnerabilities and Exposures** standard, if any.
- **SANS ID:** Enter the ID for the **System Administration, Networking, and Security** standard, if any.

This dialog is available by clicking the Fixlet, Task, or Baseline icon in the Domain Panel navigation tree. Right-click an item in the resulting List Panel and select **Create Custom Copy** from the context menu.

Alternatively, select the **Create** item from the **Tools** menu.

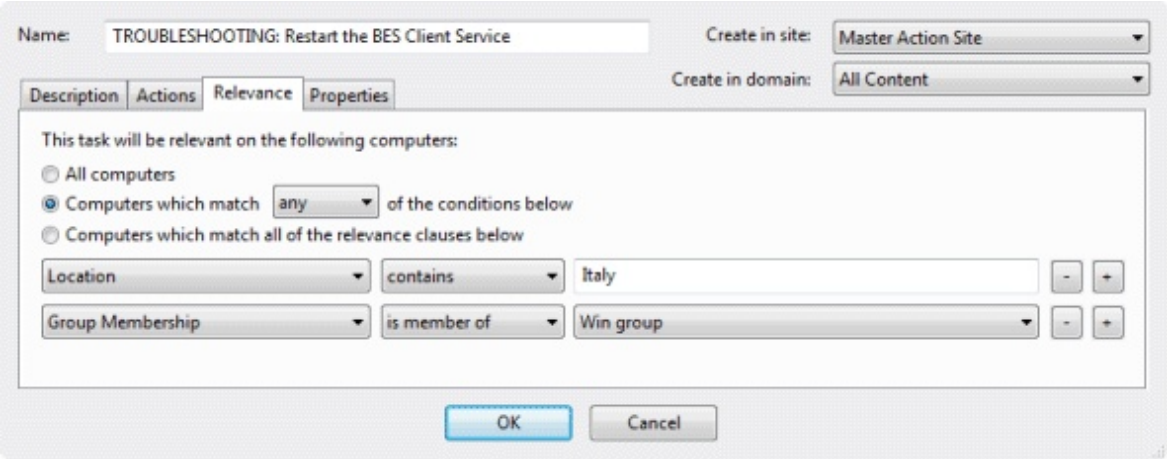
Edit Relevance Tab

The **Relevance** tab of the **Creation/Edit** dialogs lets you create a relevance expression to fine-tune the deployment of your custom **Fixlet**,**Task**, **Analysis**, or **Baseline** object.



There are several ways to specify a set of computers:

- **All computers:** The default is to include all the networked BigFix Clients for this particular Fixlet, Task, Analysis, or Baseline -- regardless of relevance.
- **Computers that match [any/all of] the conditions below:** This option lets you specify a condition that must evaluate to true before the computer triggers the Fixlet, Task, Analysis, or Baseline.



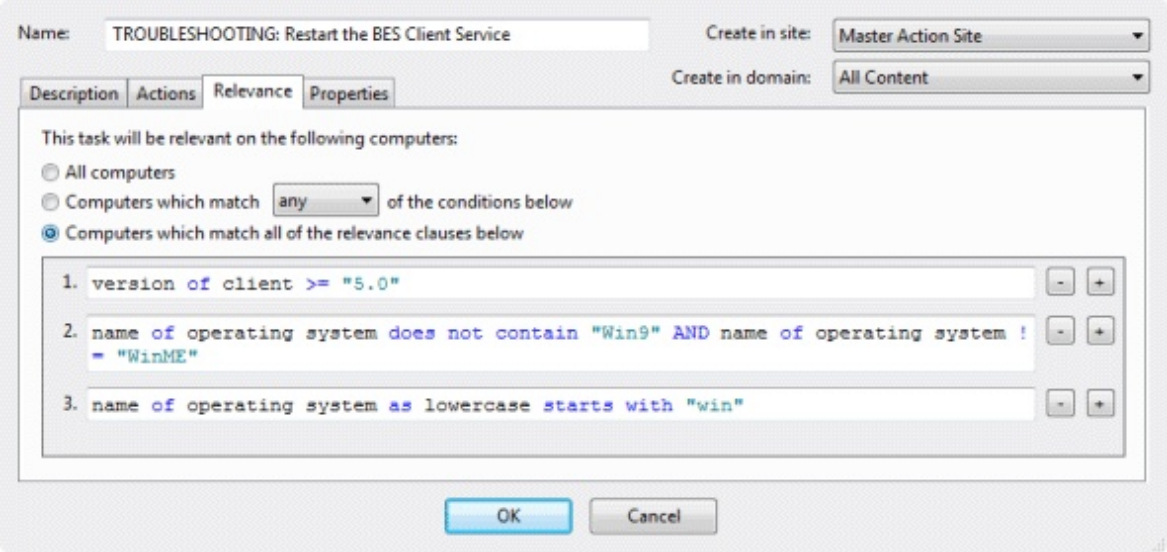
If there is more than one condition, this option includes a pull-down menu allowing you to select **any** (ORing the conditions) or **all** (ANDing the conditions). Three fields are used to define each condition:

- **The retrieved property:** select a property from the pull-down list containing the pre-defined retrieved properties. Note that there are two other options at the top of this list.
  - Select **Relevance Expression** from the top of the list, select **is true** or **is false** from the relationship pull-down list and then click the **Edit Relevance** button to define a custom relevance expression to base your group on.
  - Select **Group Membership** from the property list, select a membership option and then select a manual group from the pull-down list to the right.
- **The relationship:** select from the four available comparison operators: contains, equals, does not contain, and does not equal. Depending on the particular retrieved property, there might be other relationships available.
- **The value:** Enter a value to be compared to the value of the retrieved property. If the comparison is true, the Baseline becomes relevant on the specified computer. For example, to create a group that automatically enlists Windows computers, enter **OS contains Win**.

  There are two buttons used to edit the list of conditions:

- **Plus (+):** Click this button to add a new condition to the list. When there are two or more conditions, notice that the radio button above includes a pull-down menu allowing you to trigger on any or all of the conditions in the list.
- **Minus (-):** Click this button to delete the condition associated with it.

- **Computers on which the relevance clause below is true:** Click this button to enter a custom Relevance expression to be evaluated on each BigFix Client.



If the relevance expression evaluates to true, the Fixlet, Task, or Baseline becomes relevant to that particular client and the Console reflects that status. In the case of multiple relevance statements, they must all be TRUE (they are ANDed together) for the Task or Fixlet to become relevant.

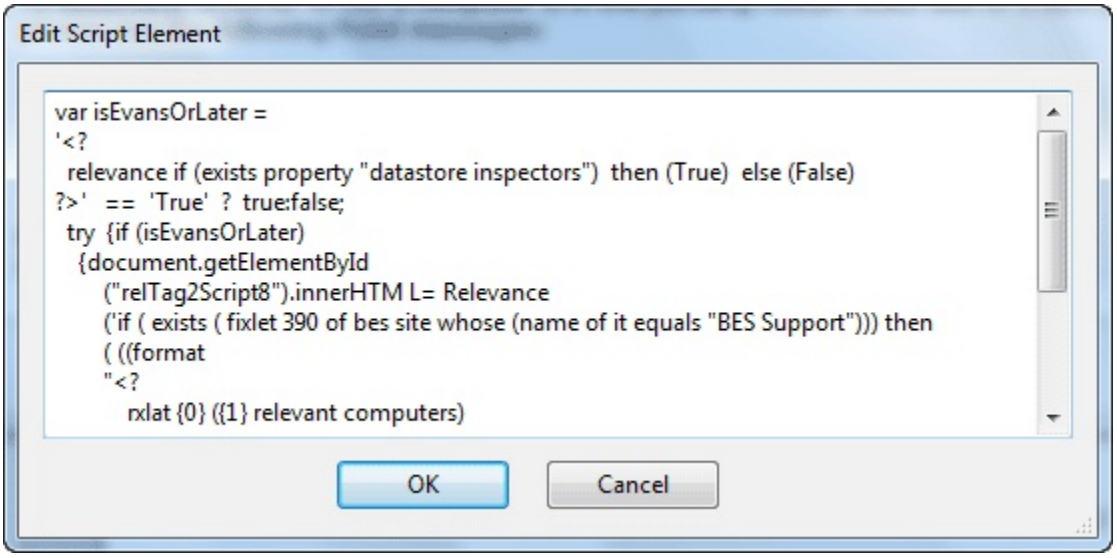
A complete discussion of relevance expressions is beyond the scope of this documentation. For more information, see the **Relevance Language Reference** and the various **Inspector Guides**. For some instructive examples, make custom copies of available Support Fixlets and examine their relevance statements.

This dialog is available by clicking the Fixlet, Task, Analysis, or Baseline icon in the Domain Panel navigation tree. Right-click the item in the resulting List Panel and select **Create Custom Copy** from the context menu.

Alternatively, select the **Create** item from the **Tools** menu.

Edit Script Element

The Edit Script Element dialog lets you create a small script to accompany a new or custom Fixlet, Task, Baseline, or Analysis.



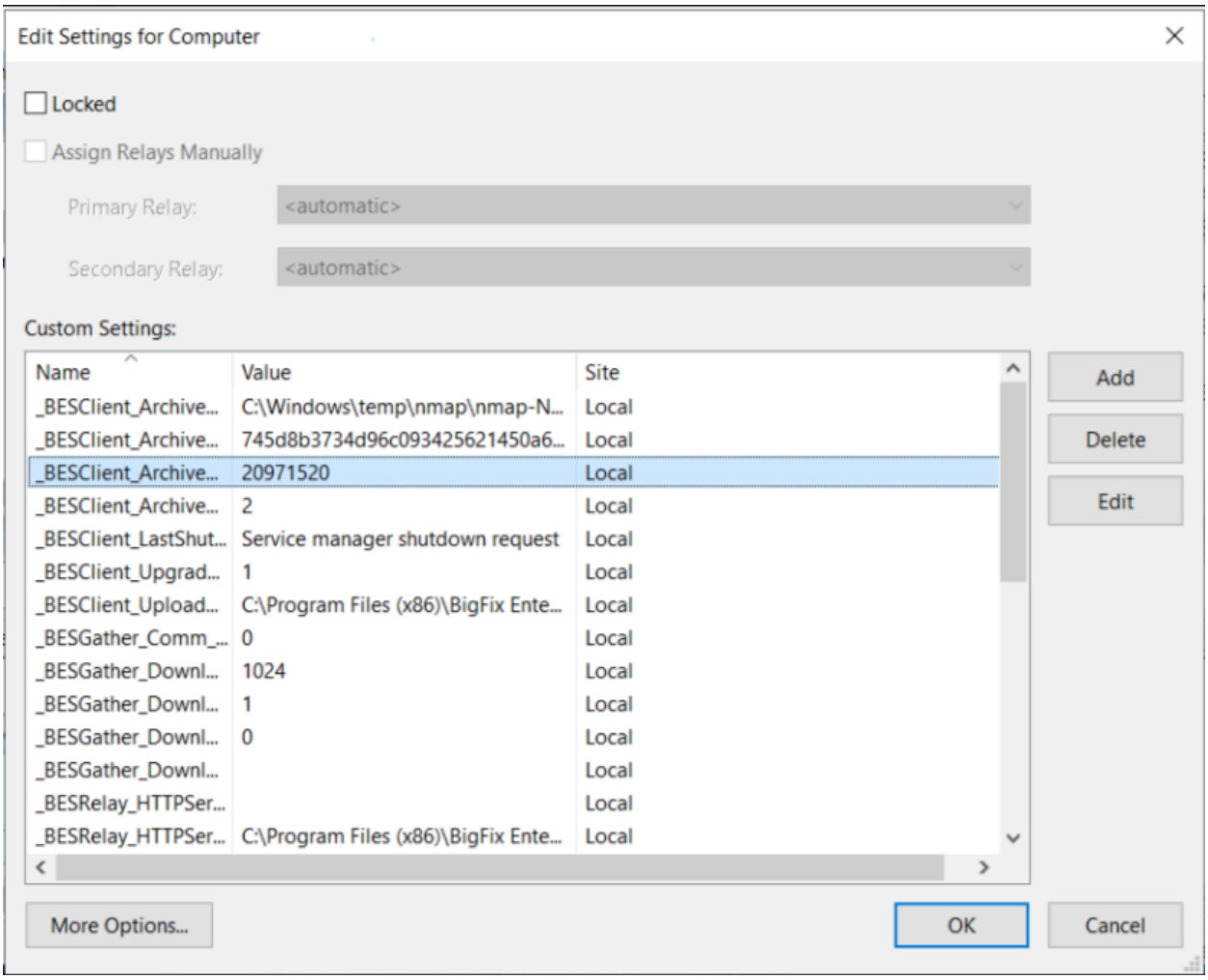
Enter the text of your action, and click **OK**. For more information about Action scripts see the **Action Language Reference**.

This dialog is available whenever you create a new or custom Fixlet, Task, Baseline, or Analysis. In the description tag, enter your text, and then from the toolbar at the top, insert the **Script** icon . This opens the **Edit Script Element** dialog.

Edit Settings for Computer

The **Edit Settings for Computer** dialog allows the BigFix Console operator to alter the settings for a selected computer.

For more settings, or to apply settings to multiple computers, see **Edit Computer Settings**.



There are several ways you can customize the settings of a computer:

- **Locked.** Check this box to lock the computer.
- **Assign Relays Manually.** Relays can be automatically assigned. Clear this box to select automatic discovery (the recommended setting). If you want to manually specify a particular relay for this BigFix Client, check this box and select the relays you want from the pull-down menus below.

- **Primary Relay Server:** Select the name of the primary Relay from the pull-down menu. The selected computer now points to this relay for Fixlet downloads instead of connecting directly to the BigFix Server.
- **Secondary Relay Server:** Select the name of the secondary Relay from the pull-down menu. If the primary relay is unavailable, then this secondary relay takes over the job of providing Fixlet downloads.

Custom Settings: This list box contains custom named variables that can be assigned to each computer. This is a valuable technique for organizing a network of computers, and can help to identify individual computers as well as groups. The list of settings in this box can be sorted by clicking the appropriate header:

- **Name:** This column contains the assigned custom variable names, for example, "depts."
- **Value:** This column lists the values of the named variables, for example, "human resources."
- **Site:** As applied by the Console Operator, these named variables are a part of the "local" site. These variables can also be set by other Fixlet sites, in which case their site name is shown here.



Note: The values assigned to passwords using the settings **_Enterprise Server_ClientRegister_ProxyPass** and, for Linux only, **_BESServer_Database_Password**, are encrypted, if the computer is a Windows system, or obfuscated, if the computer is a Linux system, immediately after you click the **OK** button.

There are three buttons to the right of the list:

- **Add:** Click this button to add a new custom variable to the list.
- **Delete:** Click this button to delete the selected variable from the list.
- **Edit:** Click this button to edit the selected named variable. This places the cursor in the value field of the chosen setting for editing.

Finally, there is a **More Options** button at the bottom of the dialog, which expands on these functions and opens the **Edit Computer Settings** dialog.

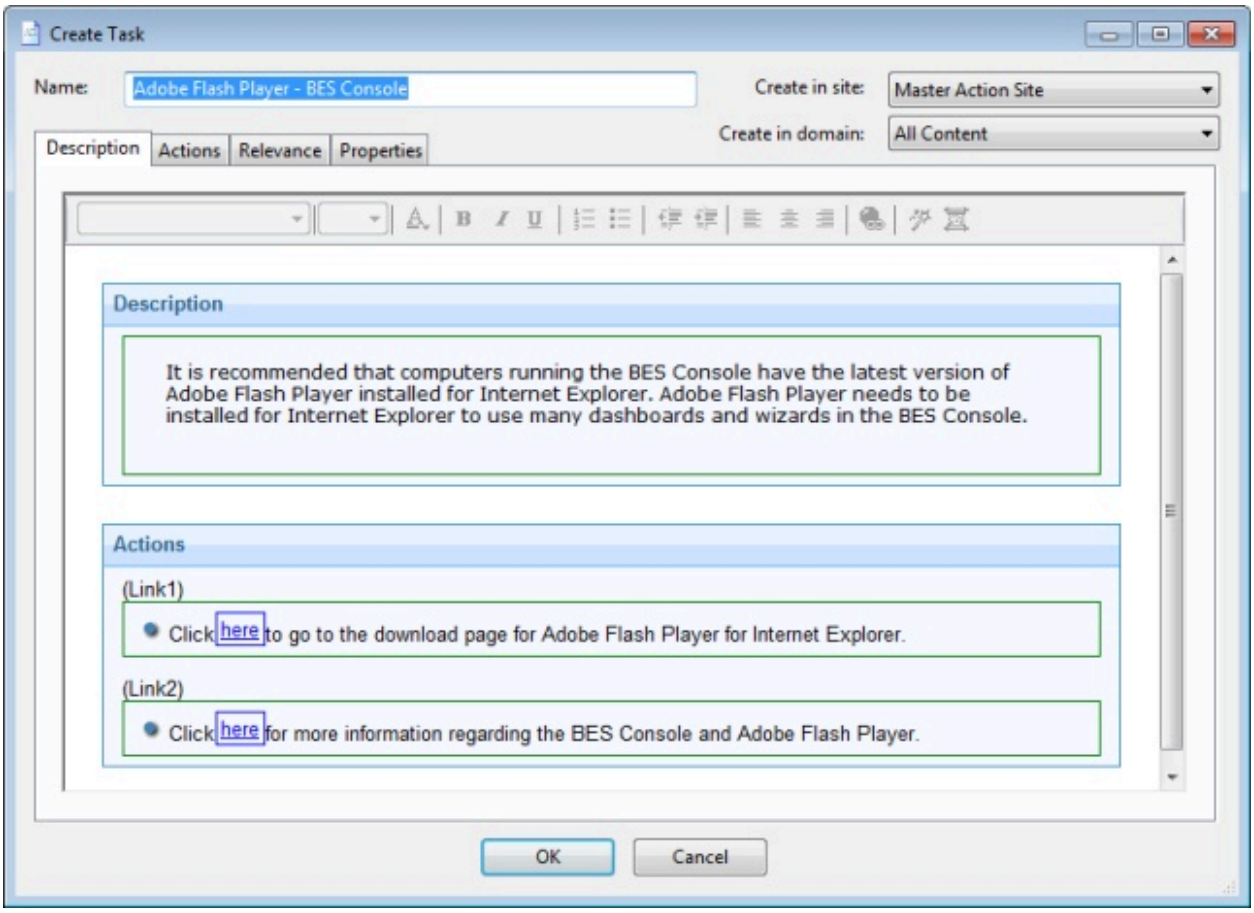
This dialog is available by selecting the **Computers** icon in the Domain Panel navigation tree, right-clicking a single computer from the resulting List Panel, and selecting **Edit Computer Settings** from the pop-up menu.

Note: Each time a new "Computer Setting" is added, also a "Managed Property" is automatically created, if it does not already exist, with the same name. The "Managed Property" allows you to check the value of the "Computer Setting". The Managed Properties are described in Manage Properties *(on page 289)*.

Note: In the **Edit Computer Settings** dialog, Master Operators (MOs) can add, edit and delete the Computer Settings, while Non Master Operators (NMOs) can only edit or delete existing Computer Settings but not add new Computer Settings.

Edit Task

The **Edit / Create Task** dialog allows you to create a Task from scratch or clone an existing Task and customize it.



To create an original Task, choose **Tools > Create New Task Message**. You are presented with a dialog with some text boxes at the top:

- **Name:** Enter the name of your custom Task.
- **Create in site:** From the pull-down menu, select the site you wanr to host this Task.
- **Create in domain:** From the pull-down menu, select the Domain you want to host this Task.

Beneath these data fields, there are four tabs:

- **Description:** Create a user-readable title and description for the Task you want to deploy. If you are cloning an existing Task, the original title and description is the default. This is an HTML page, and you can use the toolbar at the top to alter fonts and formatting.

- **Actions:** Specify the actions for your custom Task to run.
- **Relevance:** Create a relevance clause to target this Task to a subset of computers. For a cloned Task, the original relevance clause is the default. You can replace or modify the relevance clause to suit your network needs.
- **Properties:** Specify certain properties for your Task, including Category, Download Size, Source, Severity, and Date.

To create a new Task from scratch, select the following:

- **Tools > Create New Task**

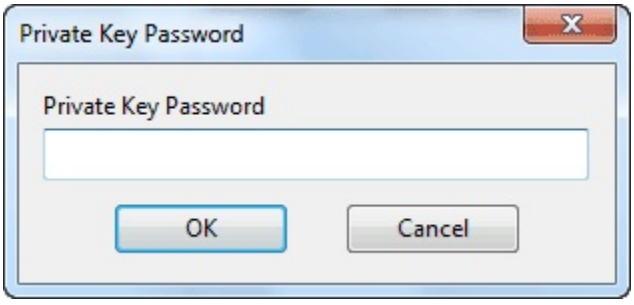
You can also customize an existing Task by selecting it from any Task list and then choosing:

- **Edit > Create Custom Copy**

Alternatively, right-click in a Task list and select **Create Custom Copy** or **Create New Task** from the pop-up menu.

Enter Private Key

The **Enter Private Key** dialog requests a password.

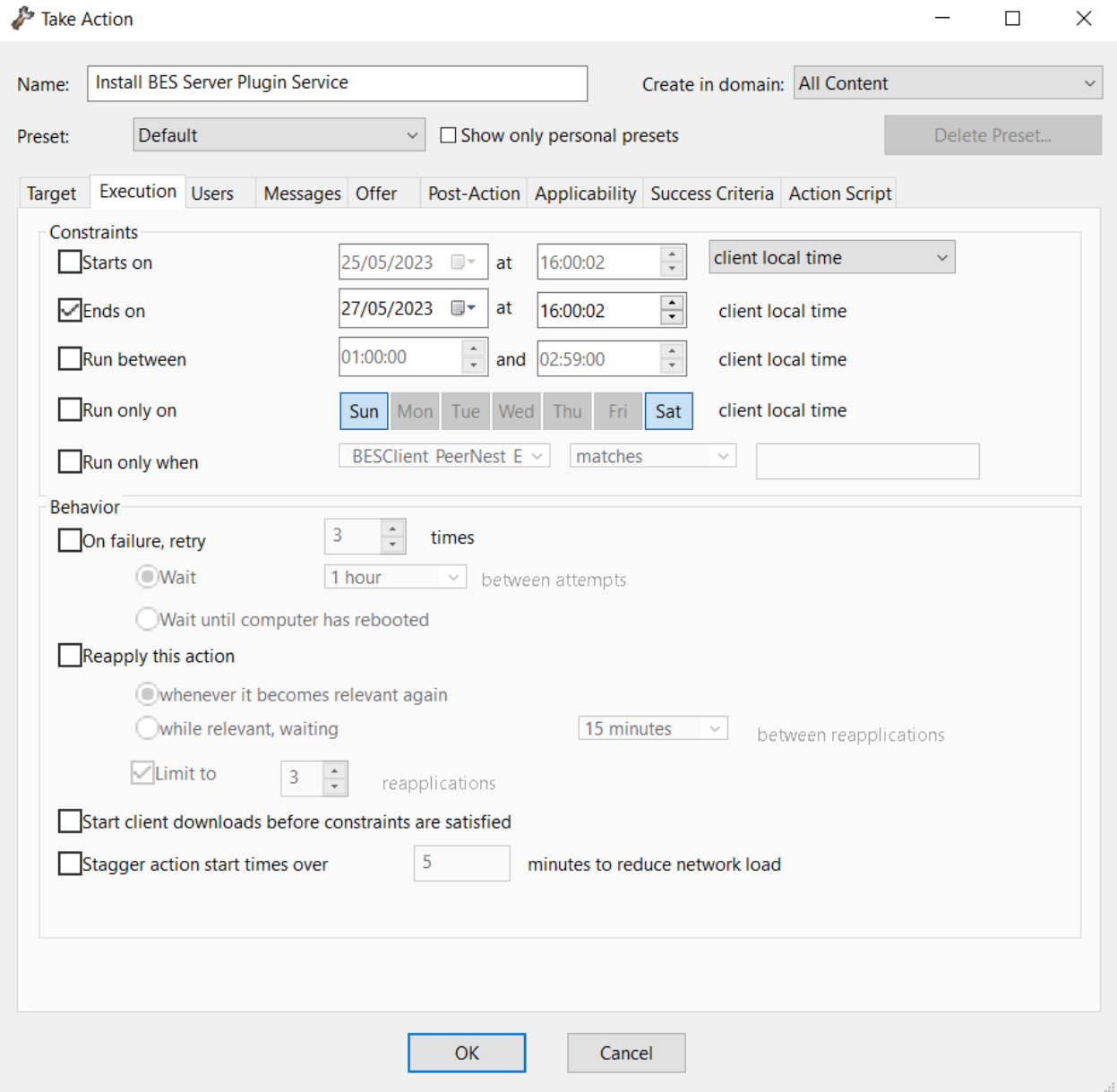


Type in the publisher password that you were given by your Site Administrator. This dialog is displayed whenever an action is deployed, to ensure that only authorized personnel are allowed to update computers in the network.

Execution Tab

The **Execution** tab can be found in various action dialogs. In this tab you can set the schedule, time interval, and the recovery options that must be satisfied when deploying the action.

Use the settings in this tab to ease the traffic load in your network.



This tab is available from several different dialogs:

- Take action *(on page 332)*
- Take multiple actions *(on page 335)*
- Action Settings *(on page 183)*
- Edit Computer Settings *(on page 261)*

In the **Constraints** section of this dialog you can schedule actions and restrict the target computers, in particular:

Starts on [date] [time]

Defines a date and time when the action can first be run. You can choose from Local Client time or Universal time from the pull-down menu. The choice you make here affects all of the scheduling constraints.

Ends on [date] [time]

It defines the actions expiration date and time.

Run between [time] [time]

Defines a period of time during which the action can be run.

Note: Pending actions are run even if the time period has expired. For example a baseline might start according to the specified time limit and all the actions it contains are run independently from the specified time period during which the actions can be run.

Note: Pending download actions are run even if the time period has expired.

Run only on [Sun,Mon,Tue,Wed,Thu,Fri,Sat]

Defines specific days of the week to run the action.

Run only when [Property] [Operator] [Value]

It filters clients by their retrieved properties. Select a **Property** and an **Operator** from the pull-down menus, then select a value for comparison. The value entered must form a valid relevance expression. Note that relational operators like '=' will do a numeric comparision while the others will do a string comparison.

In the **Behavior** section of this dialog you can manage failed actions and recurrent relevance. The BigFix Client can **retry** any action that is unsuccessful and **reapply** any action that succeeds and then subsequently fails. This capability allows you to automatically implement continuing policies minimizing the network load and the operator intervention. You can set the following behaviour:

On failure, retry XX times

It sets the maximum number of retries upon action failure. The default value is 3 retries. After selecting this check box, choose one condition among the following:

Wait XX between attempts

The Client waits a time interval of XX before retrying the action. The default time interval is 1 hour.

Wait until computer has rebooted

The Client waits to reboot before rerunning the action.

Reapply this action

It applies again the action if the target is no more compliant to the policy set by the relevance expression. After selecting this checkbox, choose one condition among the following:

Whenever it becomes relevant again

It reapplies the action as soon as the relevance expression evaluates again to true

While relevant, waiting XX between reapplications

Instead of immediately reapplying the action upon relevance, it specifies a period of time to wait between attempted reapplications.

Limit to XX reapplications

It continues to apply the action the given maximum number of times, while it remains relevant. The default values is 3 times. It counts the number of attempts *after* the original, so a limit of 3 actually involves 4 attempts.

Start client downloads before constraints are satisfied

The software downloads starts before the Client has satisfied the execution constraints. Select this option if you want to ensure that the download is available for execution as soon as the desired time frame begins.

Stagger action start times over MM minutes to reduce network load

It forces the program to space out the running of actions. This option can reduce the load on the network, in the case of bandwidth-intensive actions, and is useful to help relays in effectively servicing hundreds of attached Clients.



Note: This option can have an additional delay for starting the action and it can exceed the configured delay time, if the client selects a different relay while waiting for the action execution.

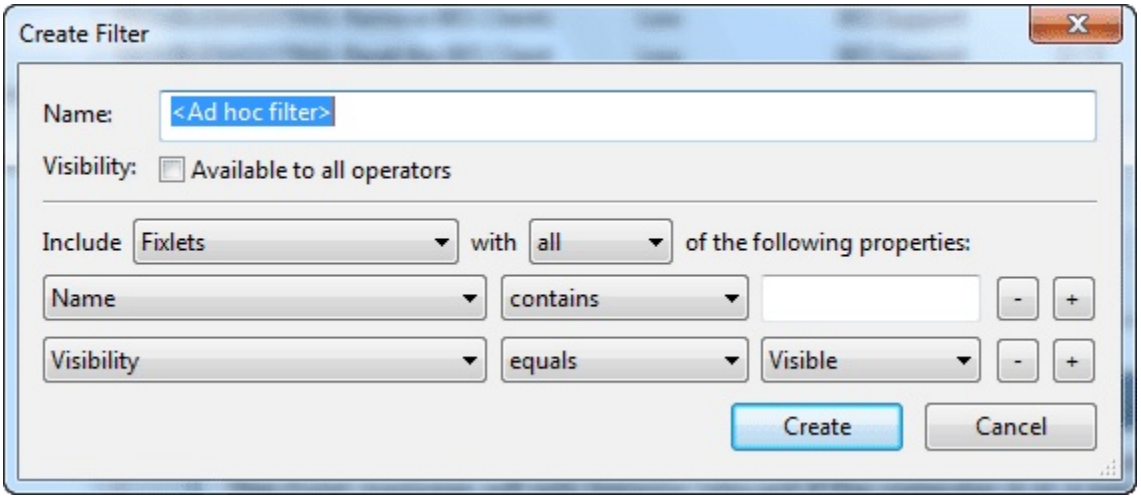


Note: The timing of the actions executed in a Plugin Portal scenario depends on the Refresh Interval. For example, if the Plugin Portal refresh interval is set to the default value of two hours, and an action has a reapply interval of 15 minutes, the action will still be applied based on the Plugin Portal discovery interval. Sending a refresh to the cloud systems target of actions, forces the Plugin Portal to run the reapply actions outside the boundaries of the refresh interval.

Find

You can find information in any of the lists (Fixlets, Tasks, Actions, and so on.) whenever the focus is on that list.

To do this, you create a Find Filter. For example, to find a particular word in the Fixlet list, click anywhere in the Fixlet List Panel and press **Ctrl-F** (or select **Find** from the **Edit** menu).



There are several sections in the Filter dialog:

Name: Provide a name for your Find Filter in the Name box.

Visibility: This box lets you keep the Filter to yourself or share it with other users.

Include: This section lets you define the scope of the Find. Choose from Fixlets, Actions, Tasks, or any of the other main categories of content. You can choose to include **all** (AND the properties) or **any** (OR the properties) of the following items.

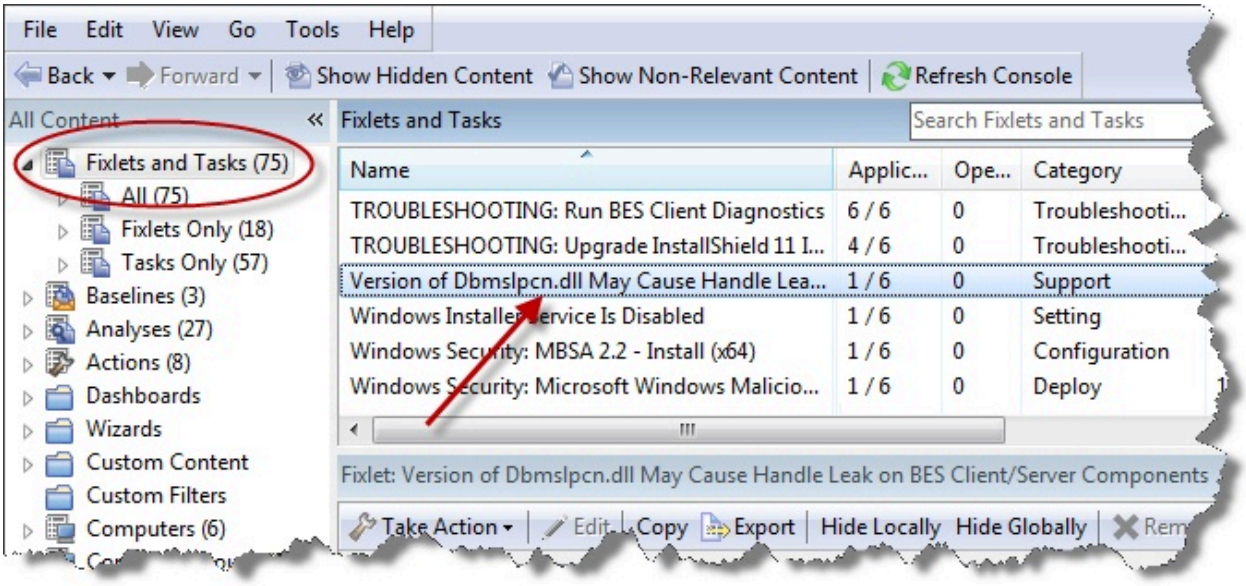
Two properties have been pre-arranged for you, but you can add or delete from these default choices. As with other property choices, there is a **{field} {operator} {search string}** triad to define. Here the defaults allow you to select a **Name** containing a value and a **Visibility**. Because Fixlets, Tasks, and Analyses can be hidden, the visibility field allows you to search through these items depending on whether they are **Visible, Locally Hidden,** or **Globally Hidden**.

When you have finished defining your Find Filter, click the **Create** button. Your custom filter is placed in the All Content Domain, under the **Custom Filters** folder. To make changes, right-click it and select **Edit** from the context menu.

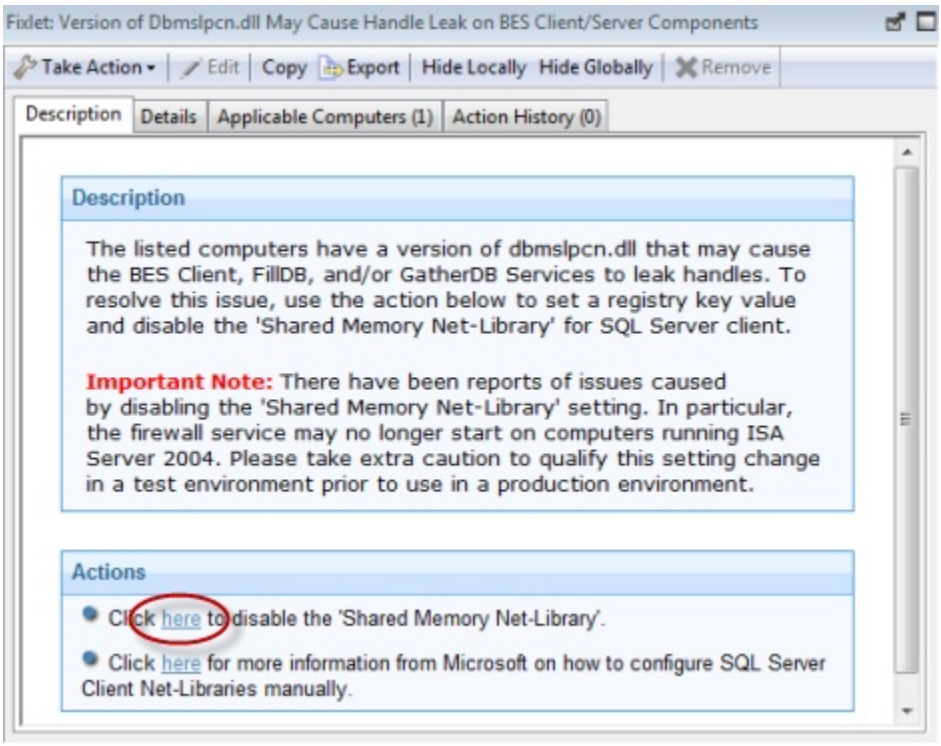
This dialog is available by selecting one of the main content categories (Fixlet Messages, Tasks, Actions, and so on.) the icon in the Domain Panel navigation tree to establish the focus, then pressing **Ctrl-F** or selecting **Find** from the **Edit** menu.

Fixlet and Task: List and Document

A list is created whenever you click **Fixlets and Tasks** from the Domain Panel navigation tree.



This list incorporates both Fixlets and Tasks, which you can filter by opening the icon and clicking any of the child nodes beneath it. The List Panel on the right now contains all the currently relevant Fixlets and Tasks, narrowed down by the filters. A Fixlet or Task **document** is displayed in the Work Area of the Console when you click any item in the list. It displays a description and typically a set of links to deploy Actions.



Fixlet and Tasks have the same basic tools and tabs available because they are similar objects. The main difference between the two is that a Fixlet is triggered by a vulnerability, whereas a Task is designed for ongoing maintenance. Both of them use Relevance clauses to target client computers and both use Action scripts to accomplish their goals. You can get a separate listing of each by clicking the **All Tasks** or **All Fixlets** node in the navigation tree.

At the top of each document you find the name of the Fixlet or Task. Beneath that is a toolbar containing the following tools:

- **Take Action:** This tool provides a pull-down menu of Actions. Select an action from the menu to deploy it to your network.
- **Edit:** Lets you edit the Fixlet or Task. This tool is only available for custom Fixlets or Tasks.
- **Copy:** Lets you copy or clone the Fixlet or Task to customize what it does.
- **Export:** Allows you to export the Fixlet or Task for editing in an external editor, or for copying to another Console or deployment.

- **Hide Locally:** Hides the Fixlet or Task on this version of the Console.
- **Hide Globally:** Hides the Fixlet or Task on all networked Consoles.
- **Remove:** Deletes this Fixlet or Task (only available for Custom Fixlets or Tasks).

There are several tabs for this document. They include:

- **Description:** An HTML page describing the Fixlet or Task and a set of Actions (implemented as links) that address the problem described. You can search any of the HTML interfaces in the Console by pressing Ctrl-F and then entering your search string.
- **Details:** An HTML page describing the Properties, Relevance clauses, and Action scripts associated with the Fixlet or Task. At the bottom of the page is a text box to enter a comment to be attached to the message.
- **Applicable Computers:** Shows which subset of computers is targeted by the Action.
- **Action History:** Shows the history of any Actions that were invoked by this Fixlet or Task.

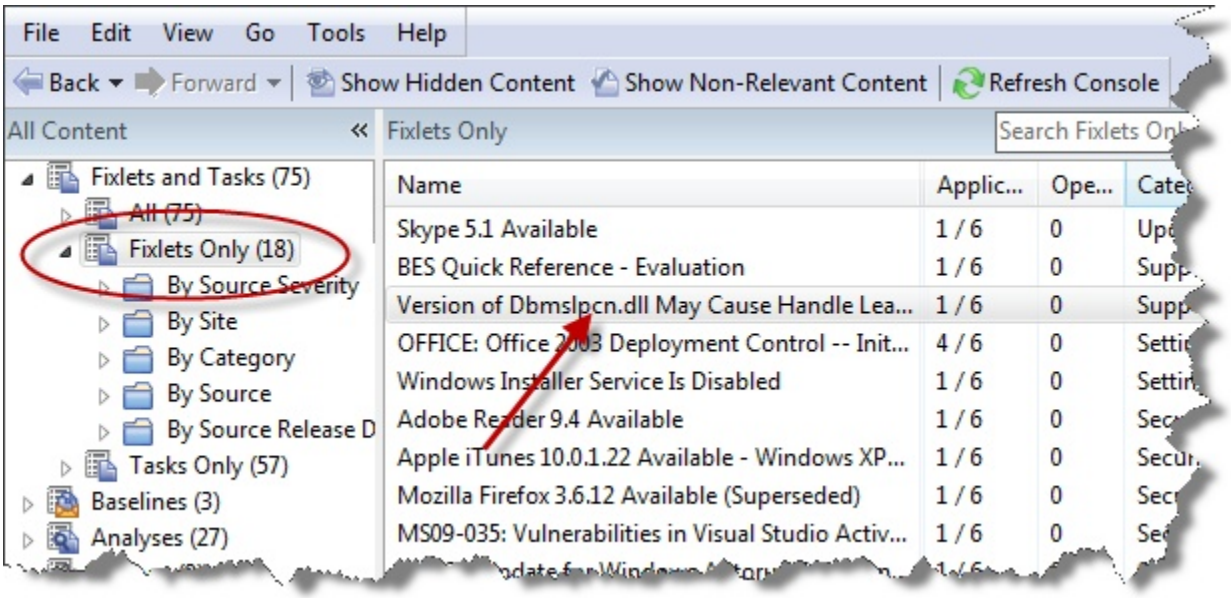
To display a Fixlet or Task list, click the **Fixlets and Tasks** icon in the Domain Panel navigation tree.

A **Fixlet** or **Task document** is opened whenever you open an item in the resulting list.

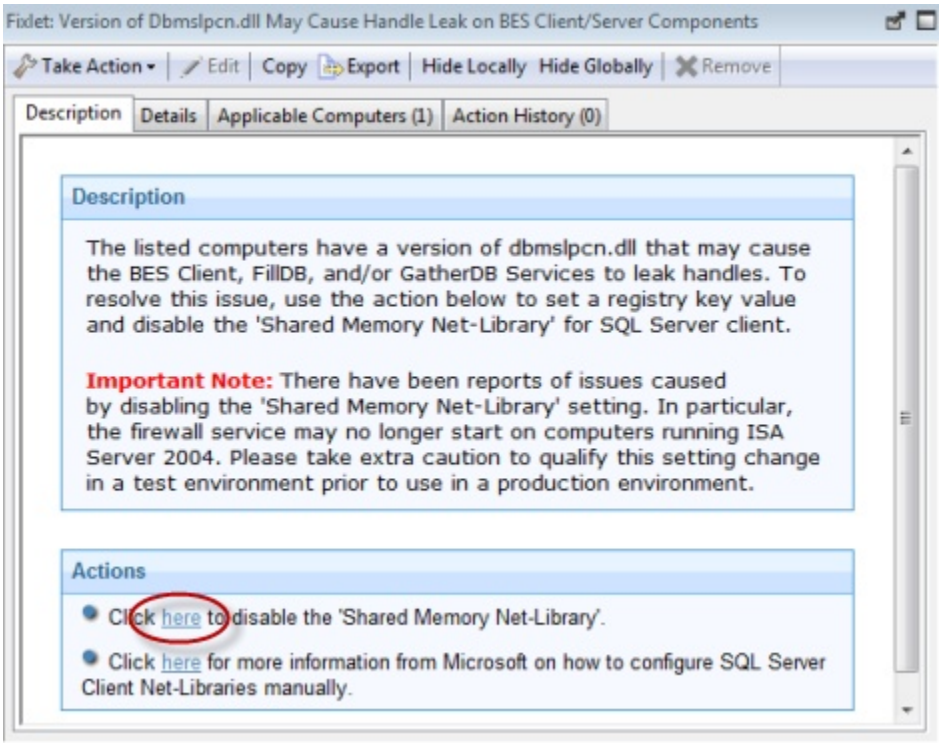
Fixlet List and Document

A list is created whenever you click **Fixlets and Tasks** from the Domain Panel navigation tree.

This list incorporates both Fixlets and Tasks, which you can filter by opening the Fixlet and Tasks icon and clicking **All Fixlet Messages** beneath it.



The List Panel on the right now contains all the currently relevant Fixlets. A **Fixlet document** is displayed in the Work Area of the Console when you click any message in the list. As well as a description, it includes clickable links called Actions.



At the top of the Fixlet document you find the Fixlet name. Beneath that is a toolbar containing the following tools:

- **Take Action:** This tool runs the default action of the Fixlet.
- **Edit:** This option lets you edit the Fixlet. This tool is only available for custom Fixlets that you created yourself.
- **Copy:** This option lets you copy or clone the Fixlet to customize what it does.
- **Export:** This tool allows you to export the Fixlet for editing in an external editor.
- **Hide Locally:** Hides the Fixlet on this version of the Console.
- **Hide Globally:** Hides the Fixlet on all Consoles.
- **Remove:** Deletes this Fixlet (only available for Custom Fixlets).

There are several tabs in a Fixlet document. They include:

- **Description:** An HTML page describing the Fixlet and a set of Actions (implemented as links) that address the problem described. You can search any of the HTML interfaces in the Console by pressing Ctrl-F and then entering your search string.
- **Details:** An HTML page describing the Properties, Relevance clauses and Action scripts associated with the Fixlet. At the bottom of the page is a text box to enter a comment to be attached to the Fixlet message.
- **Applicable Computers:** Shows which subset of computers is targeted by the action.
- **Action History:** Shows the history of any actions that were invoked by this Fixlet message.

To display a Fixlet list, click the **Fixlets** icon under the **Fixlets and Tasks** icon in the Domain Panel navigation tree.

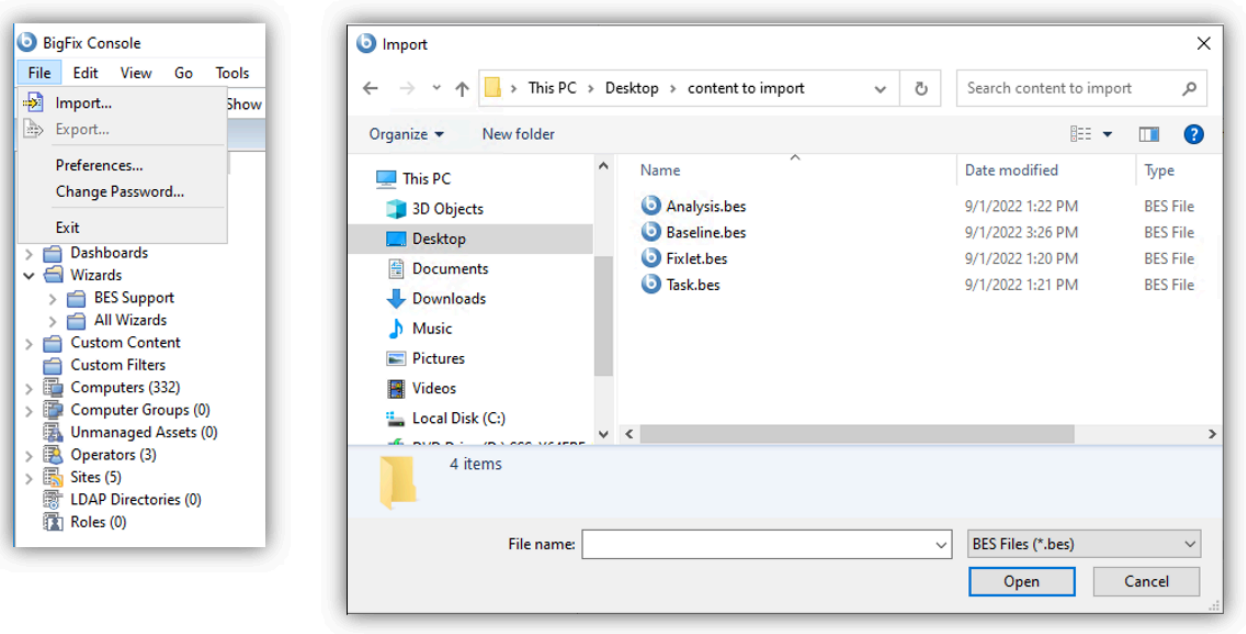
A **Fixlet document** is opened whenever you open an item in a Fixlet list.

Import Content

The **Import** dialog allows you to import .bes files that you exported or that were sent to you by another operator.

BigFix files might contain groups of Fixlet messages, Tasks, Actions, or Baselines. When you open them, a Create dialog is displayed, together with the expected features for each content type. For more information, see the associated creation dialogs for the selected content.

This dialog is available by selecting **Import** from the **File** menu.



Note: In order for the non-master operator (NMO) to be able to import files, ensure that both "Can Create Actions" and "Custom Content" permissions are set to Yes.

Importing a dynamic content in the Description

When you want to import a Fixlet, Task, Action or Baseline which has some dynamic content, scripting or relevance statements embedded in text, a security warning is displayed.

For more details, see Security Warning (on page 320).

Launch Web Reports

The **Web Reports** dialog provides access to network information, which is collected from the BigFix Servers and aggregated into a set of HTML reports.

These include summaries of the history and status of Fixlet messages and Actions across extended networks of computers. These reports can be used to track software deployments and compliance across a global network of independent LANs. To start, select **Tools > Launch Web Reports**.

Web Reports is a stand-alone program that is not described in this Guide. For more information, see the **Web Reports Guide**.

This dialog is available by selecting:

- **Tools > Launch Web Reports**.

Main Console Window

The **Main Console Window** has a panel on the left containing buttons and navigation trees called the **Domain Panel**.

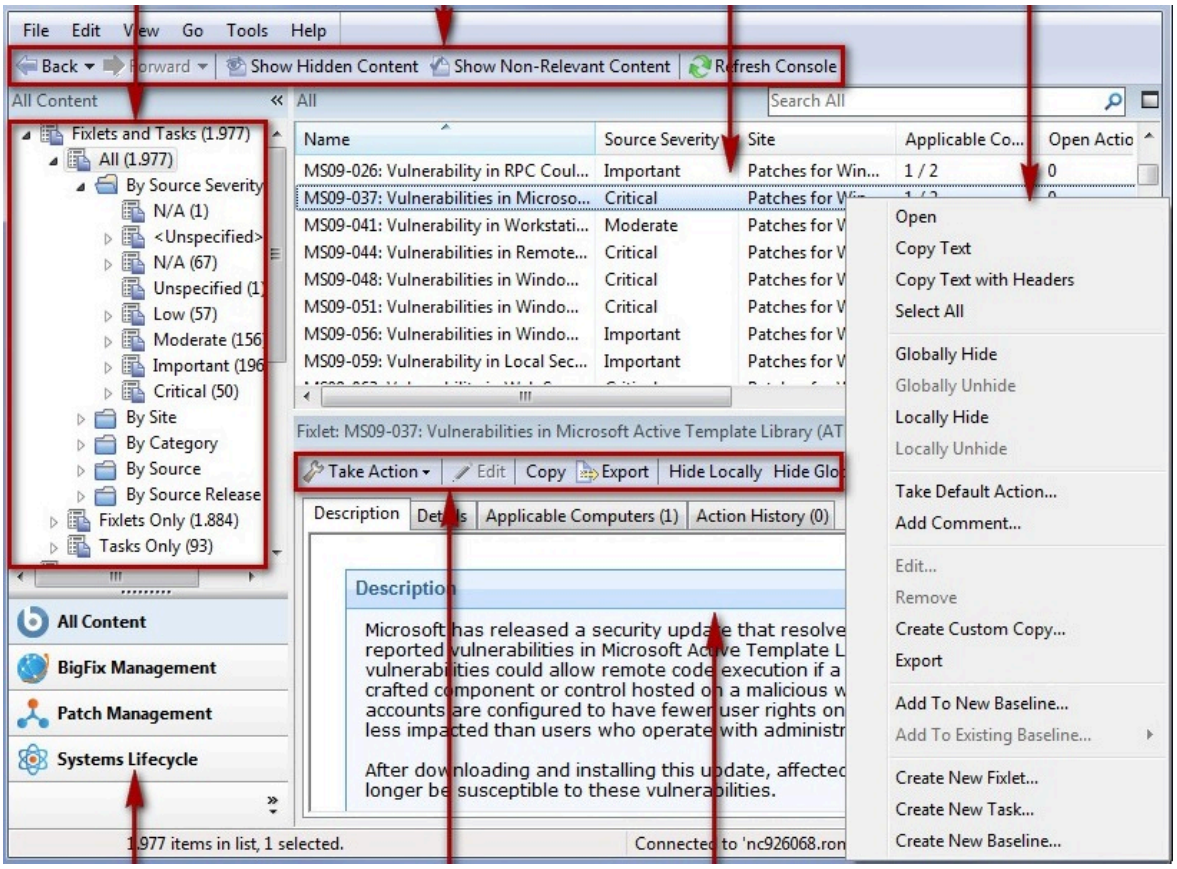
Choose an item from the Domain Panel to open the related List Panel on the right. From this list, specific items can be opened in the Work Area below. Here are the main parts:

- **Domain Panel:** This panel provides a high-level view of the content, allowing you to quickly subdivide the information by major IT functions. Within each domain, this panel presents navigation trees that make it easy to zoom in on Fixlet Messages, Reports, Analyses, and other content.
- **Domain Buttons:** At the bottom of the Domain Panel, these buttons represent the set of Domains that are currently available to you. When you subscribe to a site, it is automatically entered into the correct domain. If a new domain is required, a button for it is added to this group. At the bottom of the buttons is a control that allows you to adjust the number of buttons to display.
- **Console Toolbar:** This toolbar allows you to navigate back and forth through the items you have selected from the Domain navigation tree. In addition, there are buttons that allow you to display items you might have hidden and items that are not currently

relevant to any of your Clients (this allows you to view all the available content for research or cloning purposes). There is also a refresh button that re-evaluates content for the Console display.

- **List Panel:** This is a listing of the items specified by the content filters and the navigation trees in the Domain Panel. You can sort this list by clicking the column headers and you can rearrange the headers by dragging them left or right. In addition, you can right-click the headers to see a pop-up menu containing a list of all the possible fields. Check those you want to use as headers.
- **Context Menu:** This is the menu that opens when you right-click any item in a list. Different lists have different context menus.
- **Work Area Toolbar:** This bar contains context-sensitive buttons that can run various actions based on the content of the current work area.
- **Work Area:** Below the List Panel and the Work Area Toolbar is the Work Area. When you double-click an item from the List Panel, the Console opens a detailed document in this window.

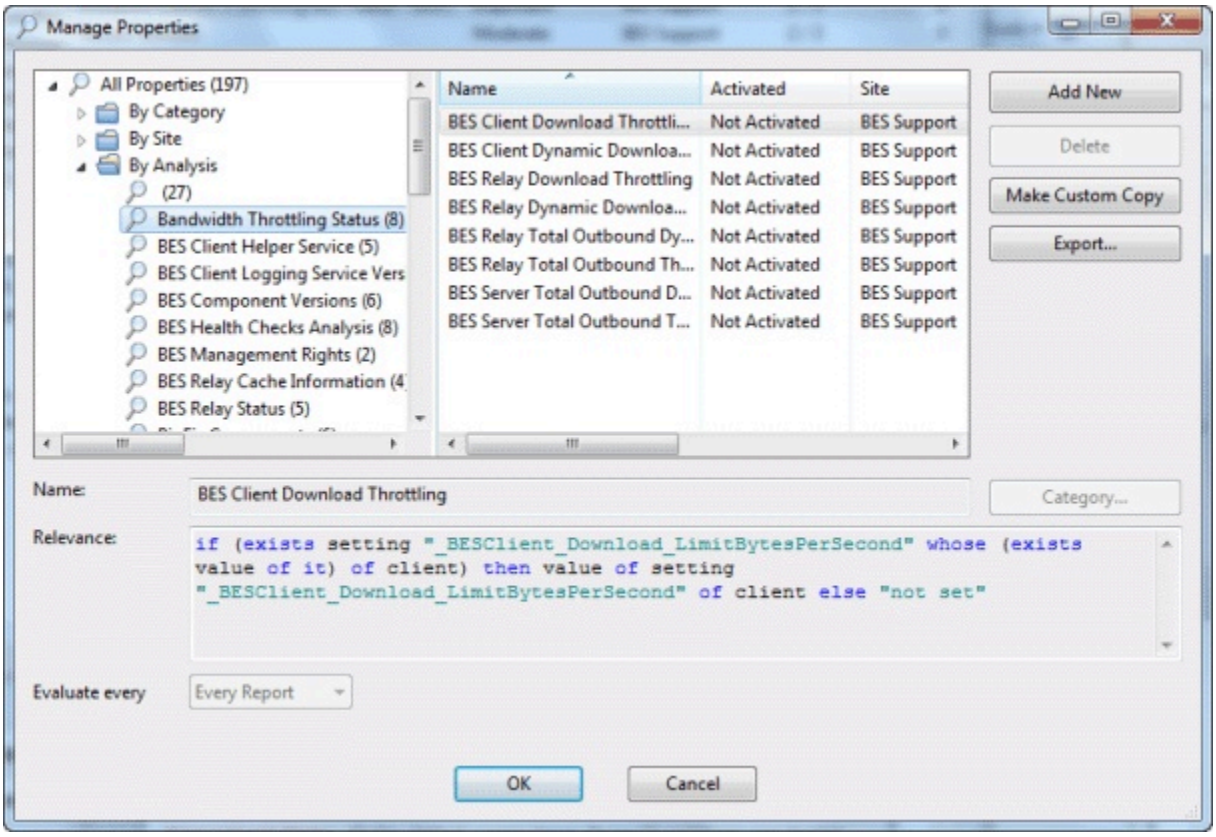
Domain Panel **Console Toolbar** **List Panel** **Context Menu**



Domain Buttons **Work Area Toolbar** **Work Area**

Manage Properties

The **Manage Properties** dialog contains a list of computer properties that are retrieved on a regular schedule from each BigFix Client.



This allows the Console operator to monitor specific aspects of all managed clients. These properties can also form the basis of the client filters (and column headers) in the Console whenever client computers are listed. In addition, these properties can be used to target computers for Fixlet messages or actions.

There are several properties listed as defaults in the top panel, but if you are a Master Operator, you can add to these (and delete others) by using the buttons on the right:

- **Add New:** To add a property, click this button, and the bottom part of the dialog becomes editable. Supply a name (that to be used for filtering and sorting) and then fill in a Relevance Expression in the text box below.
- **Delete:** To delete a property, highlight it in the list and then click this button.
- **Make Custom Copy:** You can clone and customize any property by selecting it in the list and then clicking this button.
- **Export:** To export a property as an XML (.bes) file for sharing with other users, click the button and then specify a filename for export.

Below this panel are two text fields. They display the existing property name and relevance expression. For reserved properties, these fields are display-only. Many of the properties, however, are available for editing.

- **Name:** Displays the existing name of a property, or allows you to enter a name for a new Property. If you make this name available, it is integrated into the interface for filtering, sorting, and targeting. This field also allows you to rename a property.
- **Relevance:** This text box displays the relevance expression that is evaluated to produce the retrieved property.

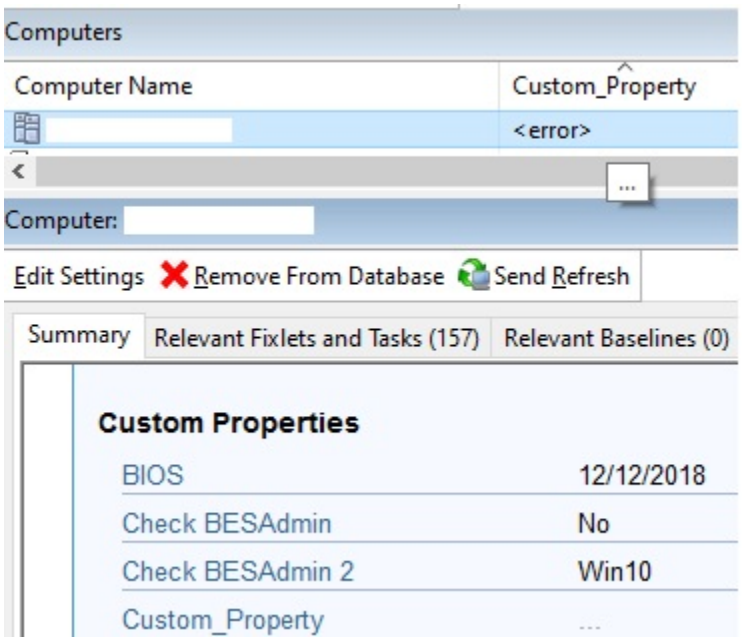
For each of these properties, there is an optional evaluation period:

- **Evaluate Every:** Choose a time period, from 5 minutes to one month, which controls how often the Property is evaluated. You might want to set a long period for time-consuming property evaluations or a short period for more urgent properties. The default is **Every Report**, which revaluates the properties with each report.

NOTE: Some of the properties (such as the IP Address and the relay status) are essential to the correct functioning of the Console. They are marked as **Reserved**, and cannot be renamed or deleted.



Note: If the result of the property exceeds 1024 characters, the client considers it an error, and the BES Console will display "..." for that property on the summary page for the computer.



This dialog is available by selecting **Tools > Manage Properties...**

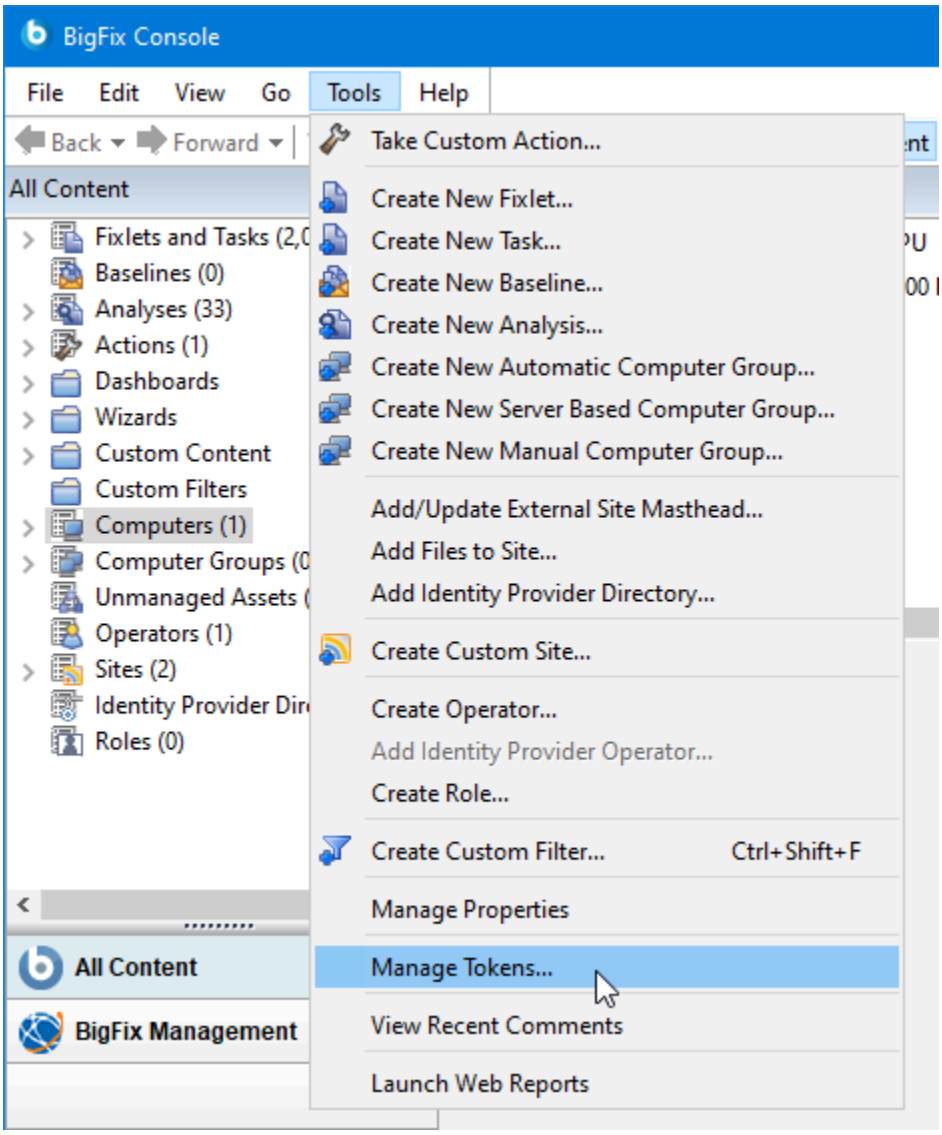
Note: In the **Manage Properties** dialog, Non Master Operators (NMOs) can only view the list of the Managed Properties and export them, but they cannot add, edit or delete the Managed Properties.

Manage Tokens

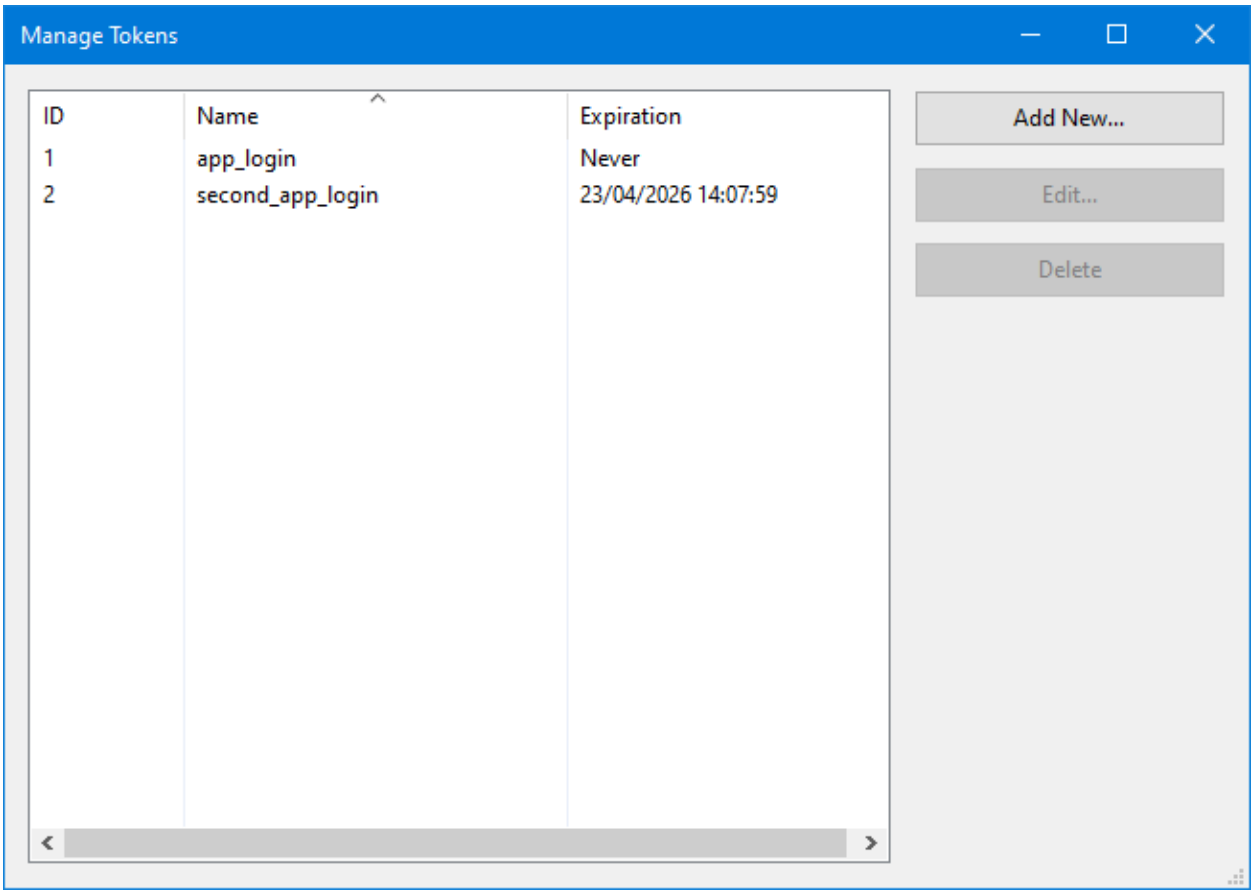
Tokens are treated as bearer credentials and they are supported by BigFix Platform starting from Version 11.0.6.

To learn more about bearer token authentication, see Configuring bearer token authentication.

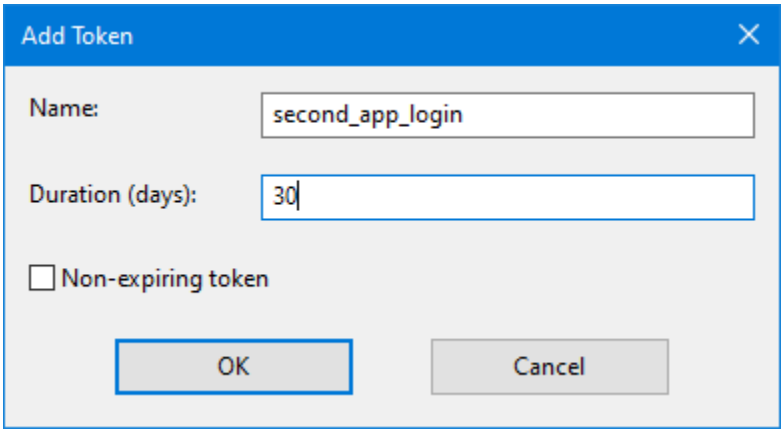
Using the BigFix Console, from the **Tools** menu, navigate to the **Manage Tokens...** menu item.



The **Manage Tokens** dialog allows you to add, edit or delete tokens.



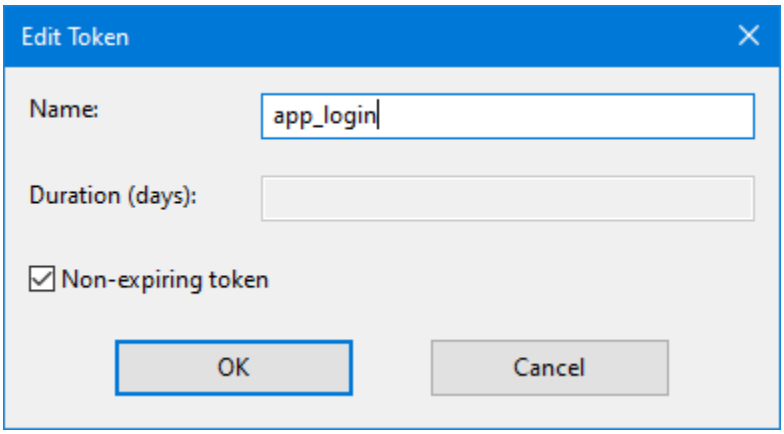
When clicking **Add New...**, the **Add Token** dialog is displayed.



In this dialog, you must set the following values:

- The name for the newly created token.
- The expiration for the token, specified in number of days. Otherwise, if the token should never expire, select the **Non-expiring token** check box.

When clicking **Edit...**, the **Edit Token** dialog is displayed.



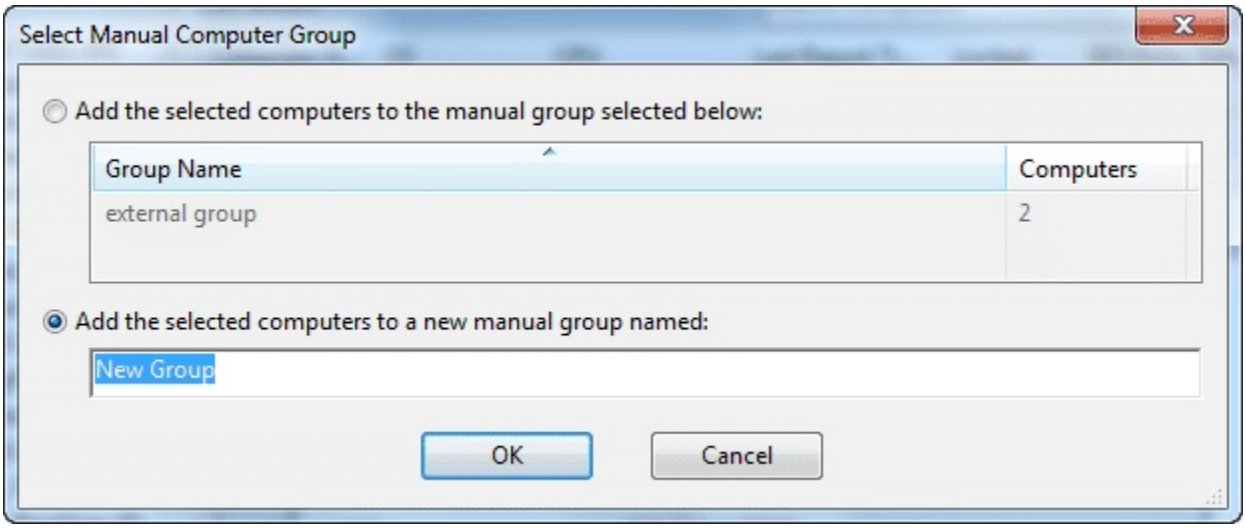
In this dialog, you can modify the following values:

- The name for the already created token.
- The expiration for the already created token.

Click **Delete** from the **Manage Tokens** dialog, if you want to remove an existing token.

Manual Computer Groups

This dialog allows you to manually group your computers to target them simultaneously.



To choose the computers you want to group, select them from the **Computers** List Panel. Right-click and select **Add to Manual Group** from the context menu. In the dialog that opens, you can add these computers to a pre-existing group, or define a new group. There are two buttons for these choices:

- **Add the selected computers to the manual group selected below:** Click a group and click OK.
- **Add the selected computers to a new manual group named:** Type in a new group name and click OK.

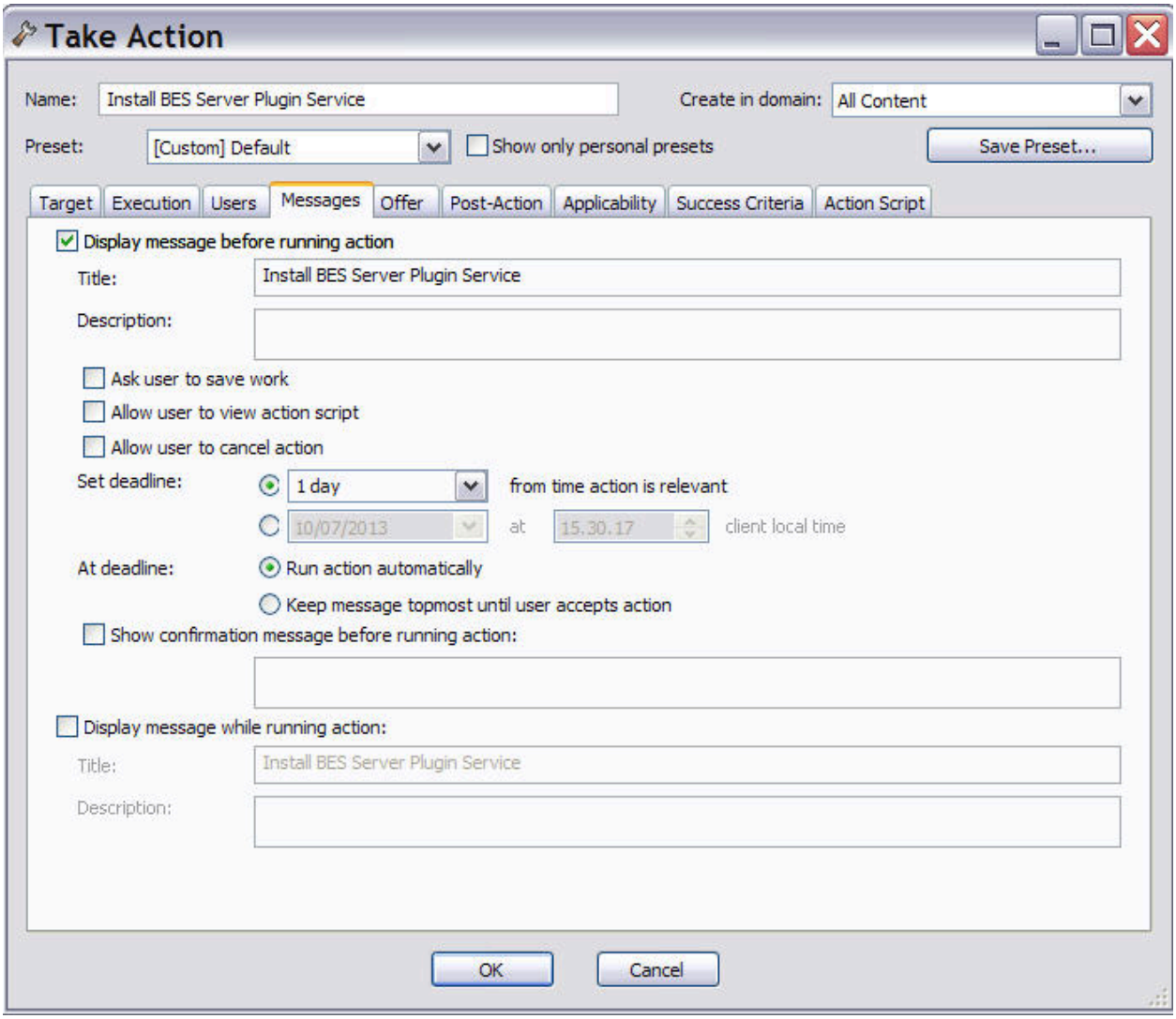
NOTE: A computer can belong to more than one group. You can also define groups automatically, by using properties or Relevance statements to indicate their group status.

This dialog is available by clicking the **Computers** icon in the Domain Panel navigation tree, selecting computers from the Computer List Panel, and then right-clicking and selecting **Add to Manual Group** from the context menu.

Messages tab

Ordinarily, the system applies actions in the background, without involving any users. In the **Messages** tab, you can select to alert the user with a specific message, and to offer certain

interactive features on the message display, including the ability to see more information about the proposed action and to cancel the proposed action.



This tab is available from several different dialogs:

- Take action *(on page 332)*
- Take multiple actions *(on page 335)*
- Action Settings *(on page 183)*
- Edit Computer Settings *(on page 261)*

You can select to display a message to the users before running the action or while the action runs or both. The default is to show no message. If you click on **Display message before running action**, in addition to the title and the text of the message, you can specify the following behaviors:

Ask user to save work

Includes a prompt asking users to save their work before the action is invoked.

Allow user to view action script

Allows the user to look over the script before accepting the action.

 **Note:** This option is disabled in the Take Multiple Action dialog.

Allow user to cancel action

Grants the user the right to cancel the action.

Set Deadline

Extends the user a grace period after the action becomes relevant. For example, this ability could be helpful to allow the user to prepare for an upgrade. Select:

***time_period* from time action is relevant**

To grant the user a specified grace period starting when the action is going to be executed that is, for the user logged into the BESClient system, when the BES Client UI message is shown.

***date* at *time* client local time**

To set the deadline to a specific date and time using the timezone specified in the **Execution** tab, which can be either the local client timezone or the Universal Time Zone.

At deadline

When the deadline arrives you can select to **Run action automatically** or to **Keep message topmost until user accepts action** to keep the message on top until the user clicks to accept the action.

Show confirmation message before running action

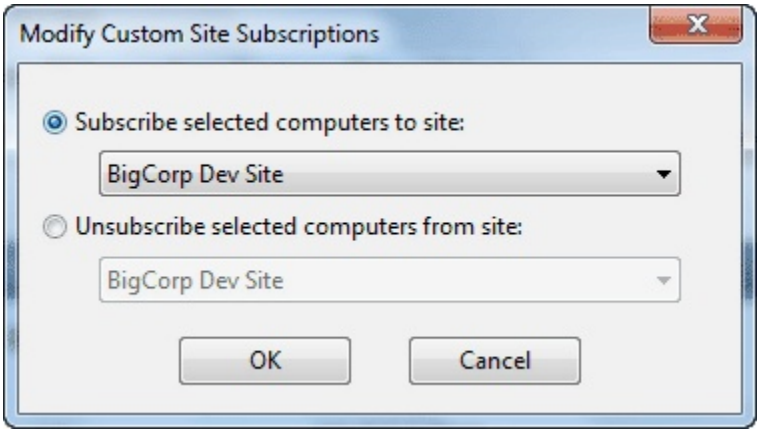
Displays a final confirmation message to the user before running the action.

On the client computer

For details about what an end user will see on the client computer, see Client UI main actions.

Modify Custom Site Subscriptions

The **Modify Custom Site Subscriptions** dialog lets you subscribe or unsubscribe any specified group of computers to any of your ad-hoc enabled custom sites.



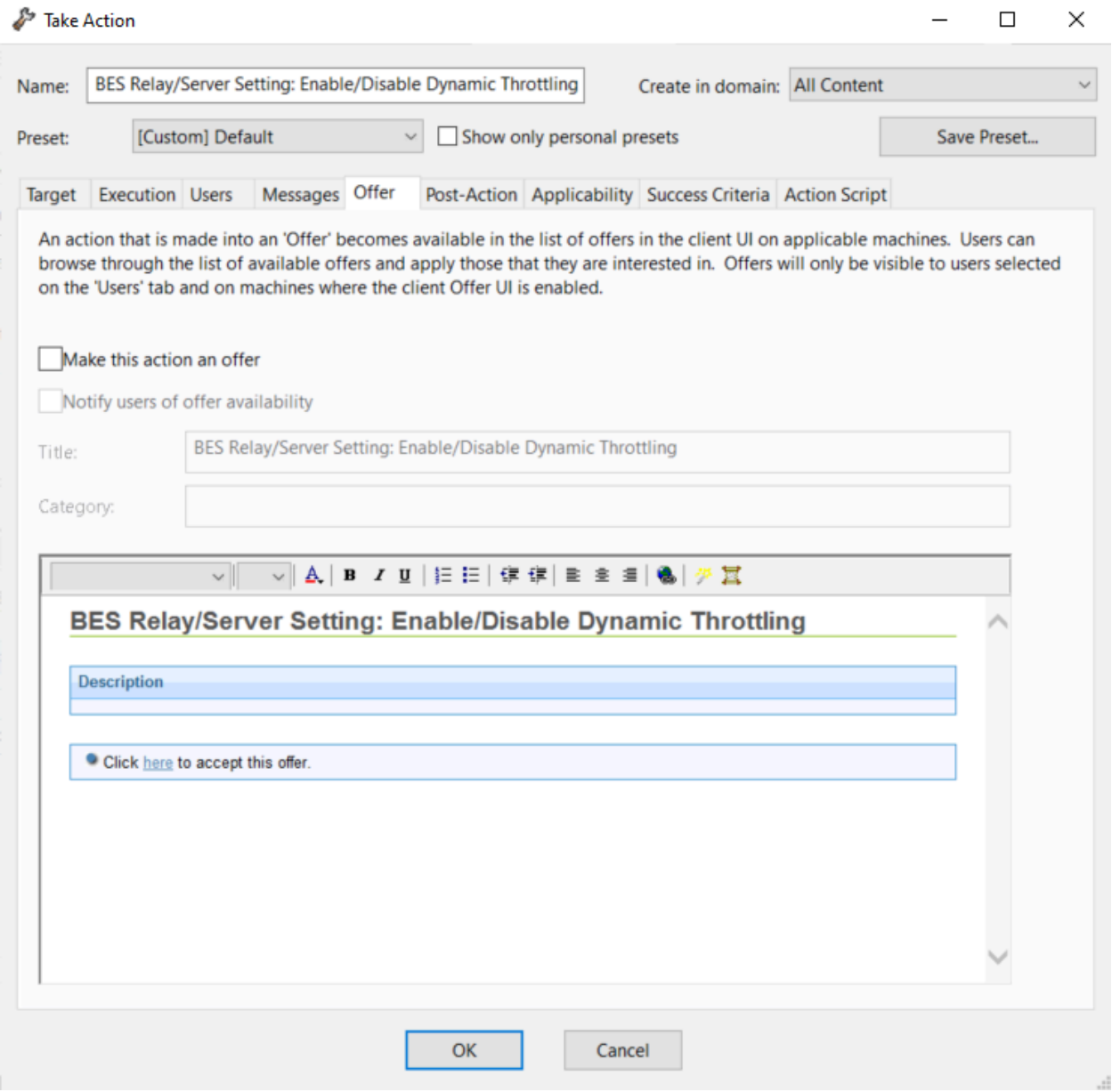
To prepare a custom site for this type of ad-hoc subscription, you must first open the custom site, select the **Computer Subscriptions** tab, and click the button labeled **Computers subscribed via ad-hoc custom site subscription actions**. Do not forget to **Save Changes** using the toolbar.

Now, when you open Computers in the List Panel, right-click to bring up the context menu and choose **Modify Custom Site Subscriptions**. This dialog opens and those custom sites that have been enabled for ad-hoc subscriptions are available for subscription from the pull-down menu. If the site is already subscribed to a custom site, this dialog also lets you unsubscribe it.

This dialog is available by right-clicking an item from any Computer list and selecting **Modify Custom Site Subscriptions** from the context menu. For this menu choice to be available, you must have first set up a Custom Site with subscribers.

Offer tab

In the **Offer** tab, you can advertise a list of actions (typically optional patches or updates) to the BigFix Client user.



This tab is available from several different dialogs:

- Take action *(on page 332)*
- Take multiple actions *(on page 335)*
- Action Settings *(on page 183)*
- Edit Computer Settings *(on page 261)*

Use the information in this tab to let an operator, which is allowed to manage the targeted Clients, choose the actions from the offering list.

In this tab you see the following options:

Make this action an offer

Check this box to advertise the given action to users.

Notify user of offer availability

Title

Enter a descriptive title for your action. This advertisement is presented to users who have to decide whether to take advantage of the offer or not so use a effective and easy to understand description.

Category

Enter a category for this offering. This is a user-defined field for bookkeeping purposes, and you can use any scheme that makes sense to your particular deployment. For example, one company might want offering categories like Installers and Uninstallers; another might want Applications and Updates.

HTML box

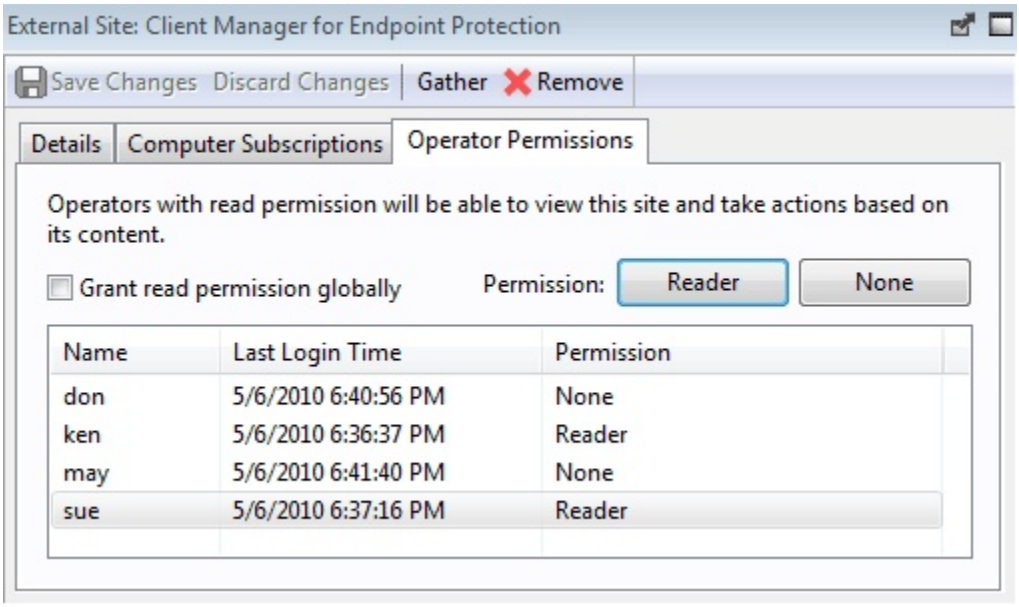
Enter a description of the action in the box provided. The description will be presented to users. You can change fonts, sizes, styles, numbering, and formatting to customize the description.

On the client computer

For details about what an end user will see on the client computer, see Client UI main actions.

Operator Permissions Tab

The **Operator Permissions** tab of the Site document lets Master Operators specify site permissions for other operators.



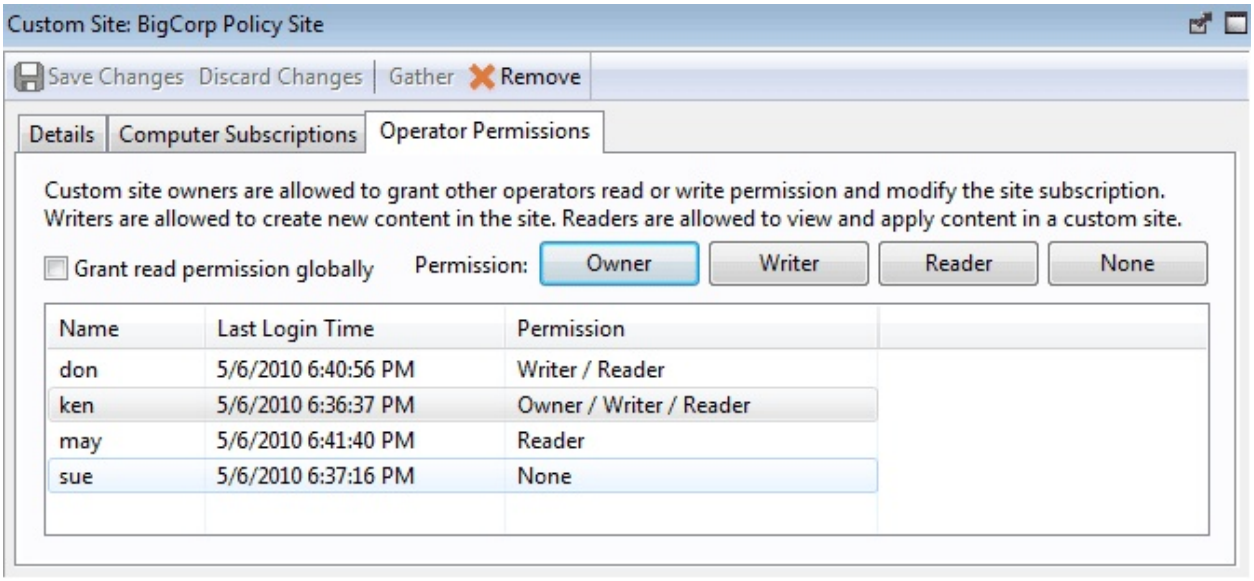
This dialog is available to Master Operators and Non-Master Operators who have Site Ownership permissions.

Not all operators need to know about all sites, and some sites can be most easily managed by a single operator, such as the Anti-Spyware Czar. This interface lets you attach a Fixlet site to a single operator or group of operators. You can also remove operators from this list at any time.

This interface only affects the reader status of Non-Master Operators. For an external site, there is a check box and two buttons:

- **Grant read permission globally:** Check this box to allow read access to all operators.
- **Reader:** Select an operator from the list and then click this button to grant read permission to that operator.
- **None:** Select an operator from the list and click this button to deny read permission to the specified operator.

For a custom site, which can be owned and edited, there are two extra permission buttons.



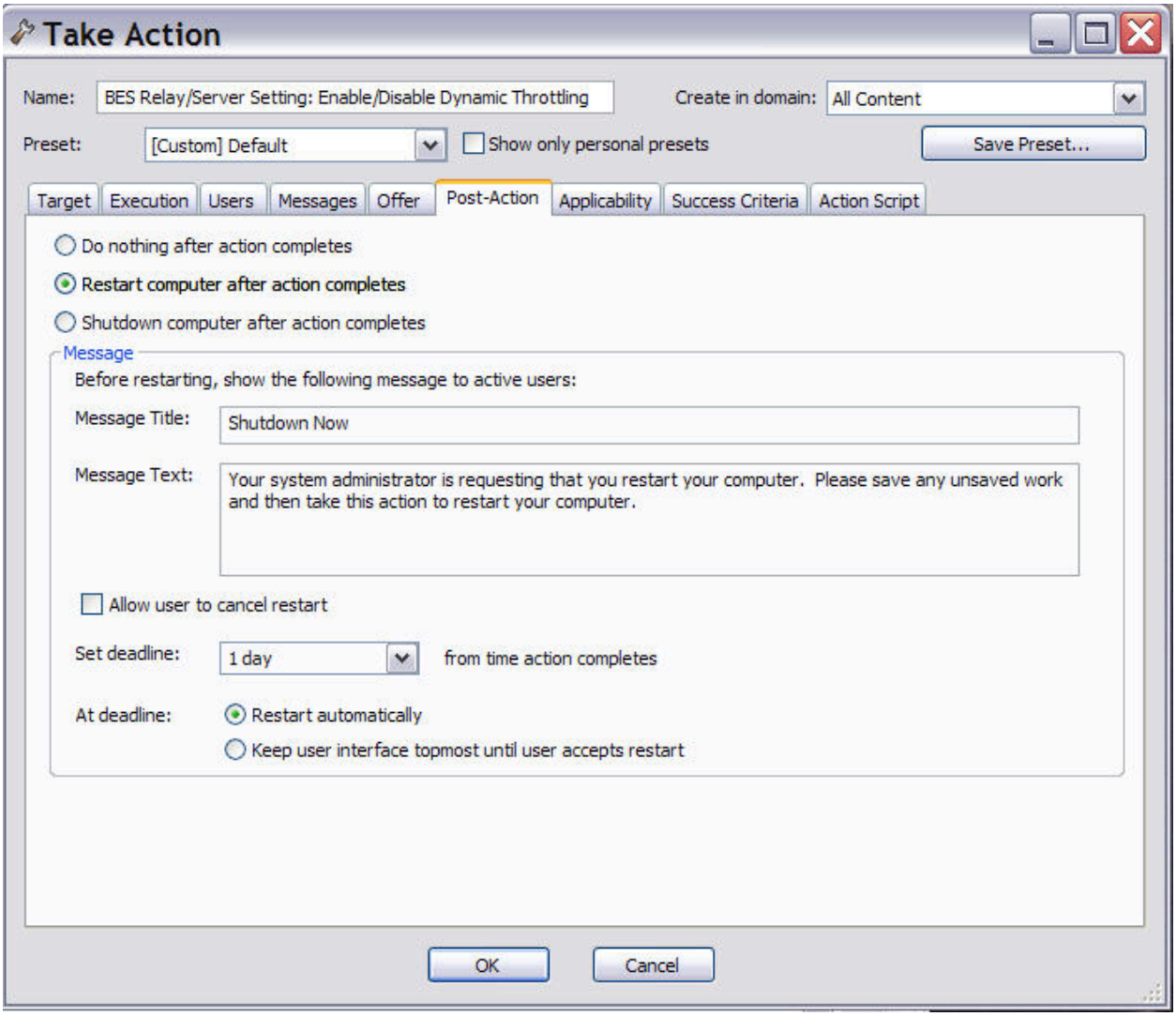
As before, you select an operator from the list and then click buttons to grant permissions. The two extra buttons are:

- **Owner:** This grants the greatest permission to the operator who can then assign reader and writer permissions.
- **Writer:** This button allows an operator to edit the site.

This dialog is available by clicking the **Sites** icon in the Domain Panel navigation tree, selecting a Site from the resulting List Panel, and then clicking the **Operator Permissions** tab.

Post-Action tab

In the **Post-Action** tab, you can set to restart or shut down the client computer after the action has completed.



This tab is available from several different dialogs:

- Take action *(on page 332)*
- Take multiple actions *(on page 335)*
- Action Settings *(on page 183)*

Among the various settings that you can specify in this tab you find:

Allow user to cancel restart

This gives the user a dialog box where they can cancel the proposed restart.

Set deadline

This gives the user the option to delay the restart/shutdown for the specified time frame after the action completed. Typically, restarts are needed to complete an installation, so they should not be postponed for too long a time.

Note: The restart/shutdown will be taken immediately if the target computer does not have a user interface (typically UNIX), or if no users are currently logged on.

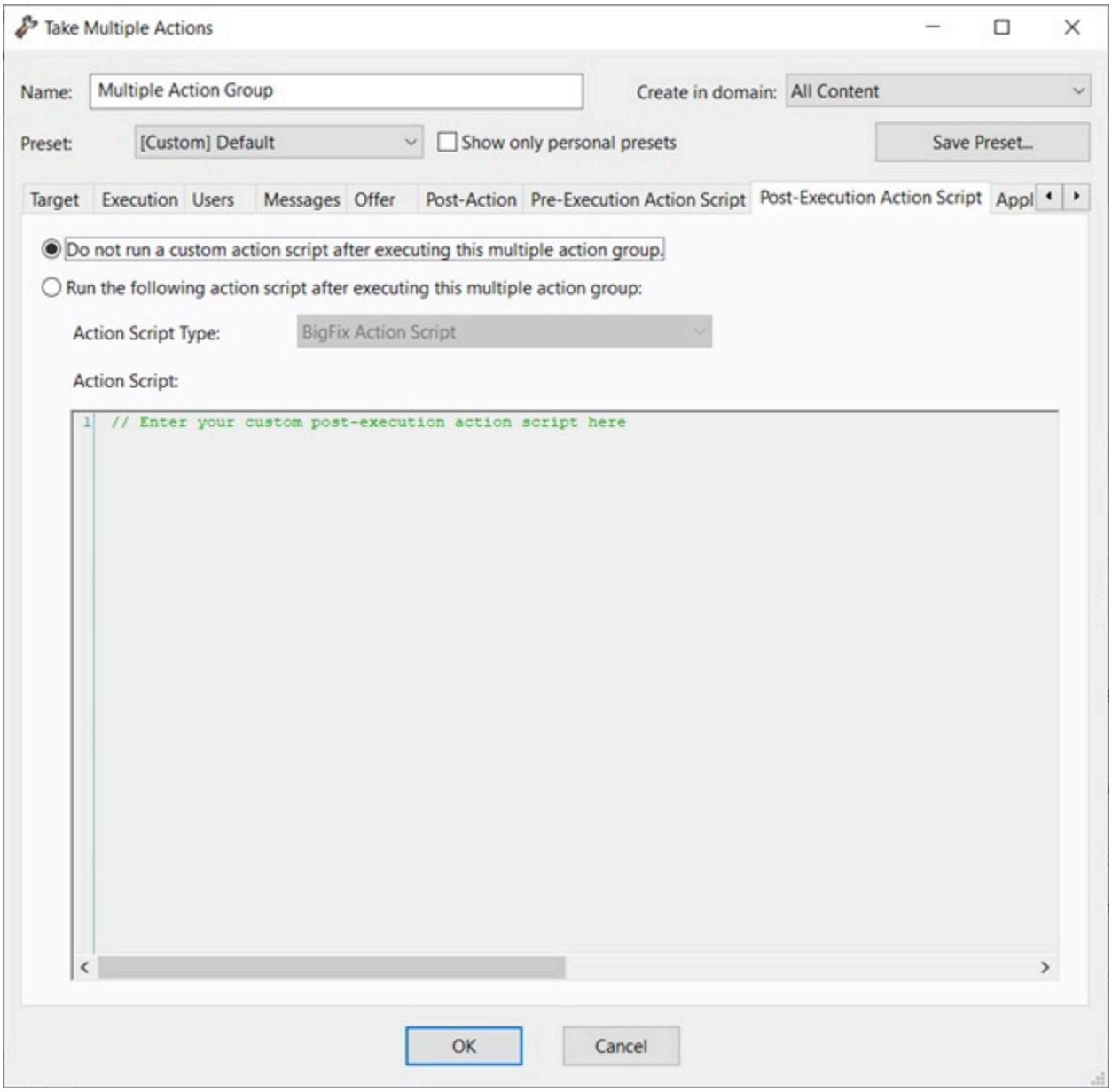
Note: If the Windows 'Fast Startup' feature is enabled and the machine is in 'pending restart' following a Post-Action, a reboot may occur as soon as the machine is restarted if the Shutdown Power option was selected.

At deadline

Click one of these buttons to specify what the deadline action is. You can choose to automatically restart, or to keep a dialog box on the screen until the user is ready.

Post-Execution Action Script Tab

In the **Pre-Execution Action Script** tab of the **Take Multiple Actions** dialog, you can create an action script that runs after the chosen set of actions is run.



This tab is available from several different dialogs:

- Take action *(on page 332)* when deploying a baseline
- Take multiple actions *(on page 335)*

There are two buttons in this dialog:

Do not run a custom action script after executing this multiple action group

This is the default for most Fixlet actions, and is the recommended option.

Run the following action script after executing this multiple action group

You can select one of the following options and either modify the existing script or enter a new script in the text area. Select the type of action script that you want to use for this script:

BigFix Action Script

This is the BigFix standard scripting language for actions.

AppleScript

This is Apple's scripting language for controlling computer resources.

sh

The action is a shell script to be run by a Linux or a UNIX or a bsd shell.

PowerShell

Starting from version 10.0.4, BigFix gives you the possibility to run PowerShell scripts too.

You can run on a selected Windows Client the script that you write in the **Action Script** text box. The script runs on the PowerShell installed by default by your Windows operating system in the `C:\Windows\System32\WindowsPowerShell\v1.0` directory, if available, or in `C:\Windows\SysWOW64\WindowsPowerShell\v1.0`.

The script is executed by default using the **-ExecutionPolicy Bypass** option. To avoid using this option, you can use the `_BESClient_PowerShell_DisableExecPolicyBypass` client setting described in the Miscellaneous section of the List of settings and detailed descriptions page.

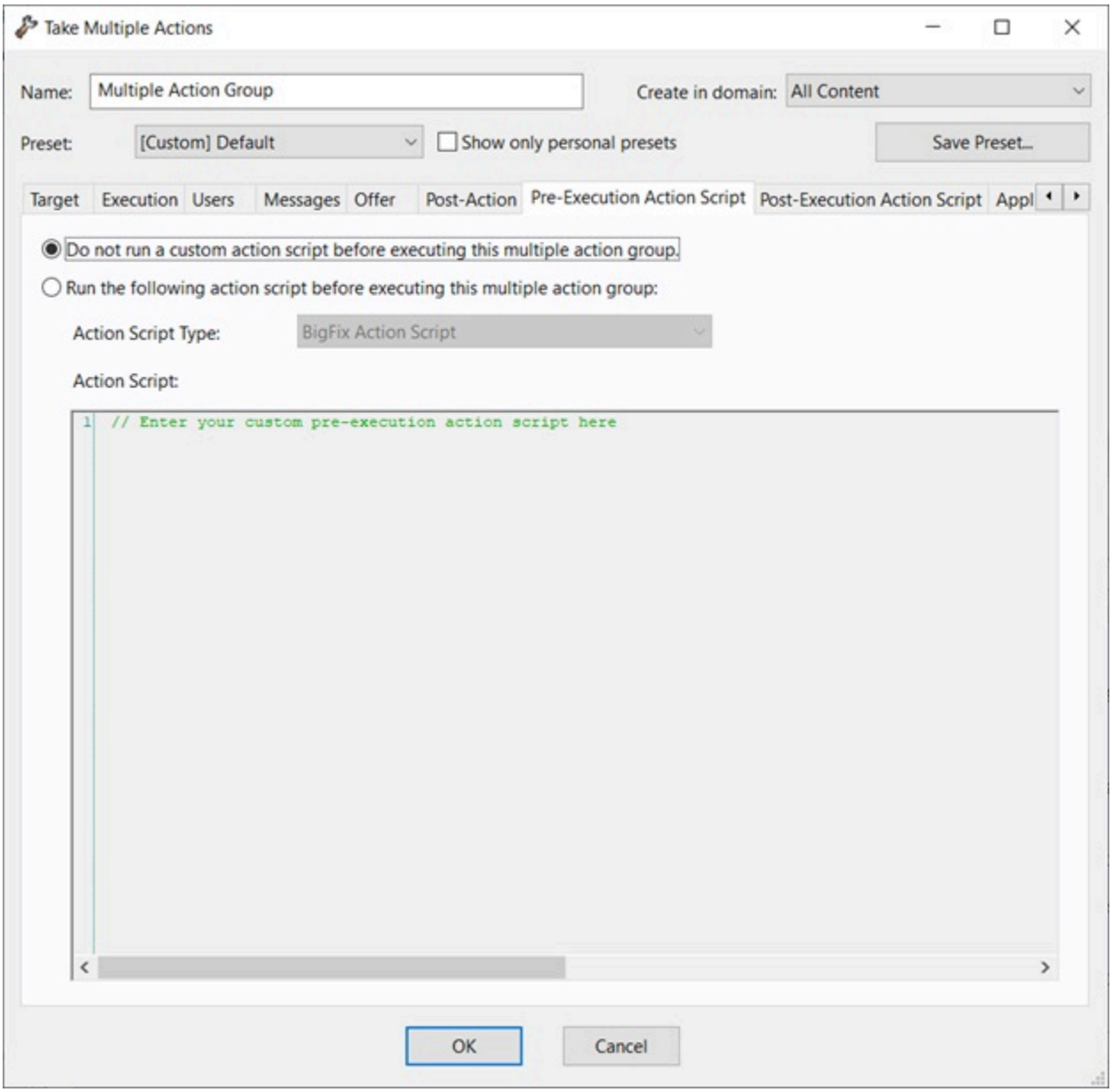
Since they are executed in hidden mode, PowerShell scripts requiring user interaction or showing pop-up windows or dialog

boxes are not supported and might cause the action to remain in running status or the script to display an error in the log file.

Note: By default, actions cannot be undone. Make sure to test your action on a small scale before you deploy it in your entire network.

Pre-Execution Action Script tab

In the **Pre-Execution Action Script** tab of the **Take Multiple Actions** dialog you can create an action script that runs before the chosen set of actions is run.



This tab is available from several different dialogs:

- Take action *(on page 332)* when deploying a baseline
- Take multiple actions *(on page 335)*

There are two buttons in this dialog:

Do not run a custom action script before executing this multiple action group

This is the default for most Fixlet actions, and is the recommended option.

Run the following action script before executing this multiple action group

You can select one of the following options and either modify the existing script or enter a new script in the text area. Select the type of action script that you want to use for this script:

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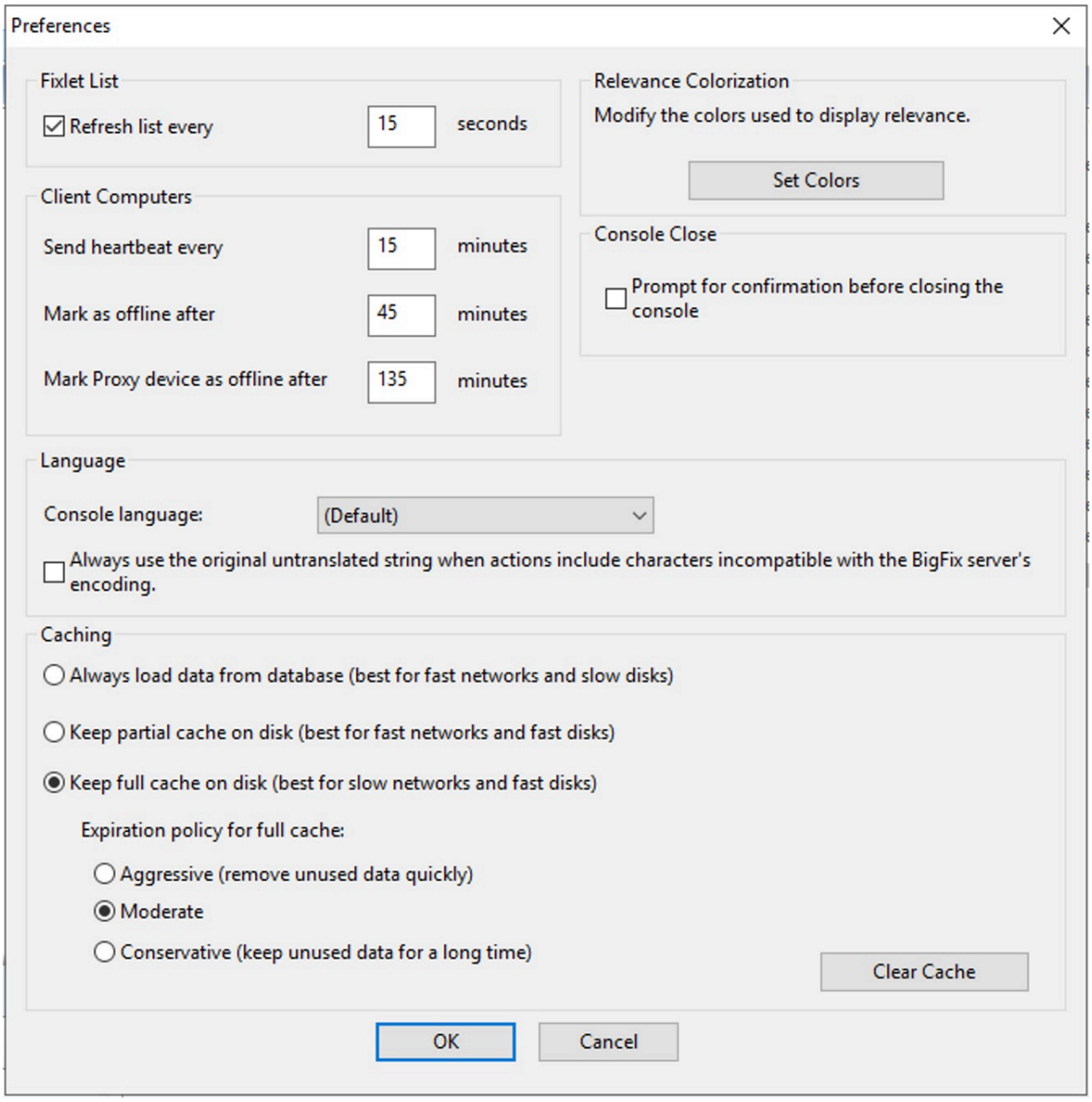
Since they are executed in hidden mode, PowerShell scripts requiring user interaction or showing pop-up windows or dialog

boxes are not supported and might cause the action to remain in running status or the script to display an error in the log file.

Note: By default, actions cannot be undone. Make sure to test your action on a small scale before you deploy it in your entire network.

Preferences

The **Preferences** dialog lets you adjust certain system-wide parameters.



There are several sections in the Preferences dialog:

Fixlet List

- **Refresh list every XX seconds:** Controls how often the Fixlet display is updated. The default setting causes the BigFix Database to be queried every 15 seconds. More frequent updates cause more network traffic, but less frequent updates increase the

response time. As the BigFix Database increases in size, a longer refresh rate might be desirable. 15 seconds provides a good balance between latency and bandwidth concerns.

Client Computers

- **Send heartbeat every XX minutes:** Controls how often the BigFix Client computers check in with the BigFix Server to update their status. Each time a BigFix Client sends a heartbeat, it includes any retrieved property values that have changed. 15 minutes is the default value.
- **Mark as offline after XX minutes:** Controls how long to wait after the last heartbeat before a computer is declared to be offline. The default is 50 minutes.
- **Mark Proxy device as offline after XXX minutes:** Controls how long to wait after the last heartbeat before a cloud resource is declared to be offline. The default is 135 minutes.

Relevance Colorization

- **Modify the colors used to display relevance:** Whenever Relevance expressions are viewed, the text can be colored for easier reading. Click the **Set Colors** button to open an interface allowing you to customize your personal color scheme.

Console Close

- **Prompt for confirmation before closing the console:** This preference provides a yes/no prompt every time you exit the Console.

Language

- **Console Language:** If you want to change the Console language, select the language and then restart the Console.
- **Always use the original untranslated string when actions include characters incompatible with the BigFix server's encoding** This preference controls whether or not you want to be prompted when the Console replaces the localized name or

post-action message of an action with the corresponding untranslated string. When this option is enabled, if you take an action from a Fixlet of an external site and the Fixlet has a localized name or post-action message containing characters not allowed by the fxf-encoding, then the Console replaces the localized string with the corresponding untranslated string without prompting.

Cache options

- **Always load data from database:** If you do not want to leave information cached on your Console computer, click this option. This causes all data to be loaded freshly from the database each time you open the Console.
- **Keep partial cache on disk:** This option caches everything except retrieved property results. The Console still caches Fixlet and Action results, which are then written out upon exiting.
- **Keep full cache on disk:** With this option, retrieved properties can be stored locally along with Fixlet and Action results. The more properties you keep in the cache, the more expensive it is to maintain, so the caching policy determines how long the Console runs before it clears items out of its cache.

Expiration policy. If you have selected the full caching option above, you must also set an expiration policy to periodically purge the cache:

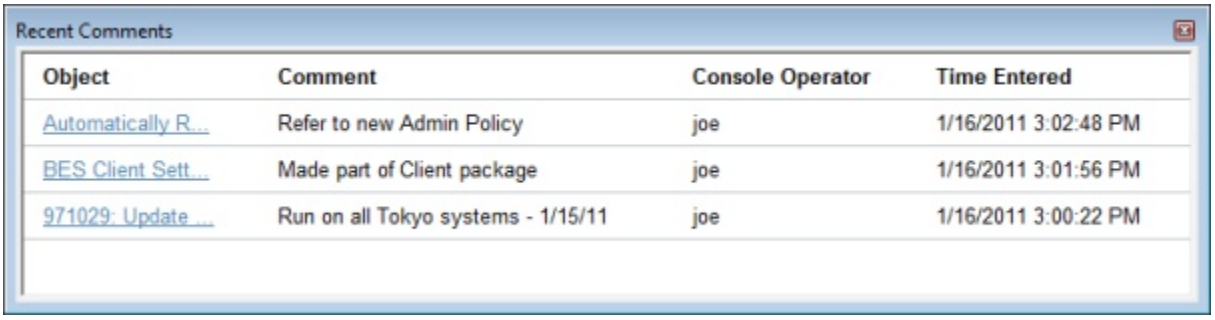
- **Aggressive:** This policy purges unused data rapidly, purging any items that were not accessed in the previous Console session.
- **Moderate:** This policy is intermediate between aggressive and conservative.
- **Conservative:** This policy allows data to remain for a long time between purges, whether or not is has been recently accessed.
- **Clear Cache:** Click this button to clear the current cache when the Console is next run.

This dialog is available by selecting:

- **File > Preferences**

Recent Comments

This dialog presents a list of comments that have been attached to Fixlet messages, Tasks, Baselines, Actions, and Computers.

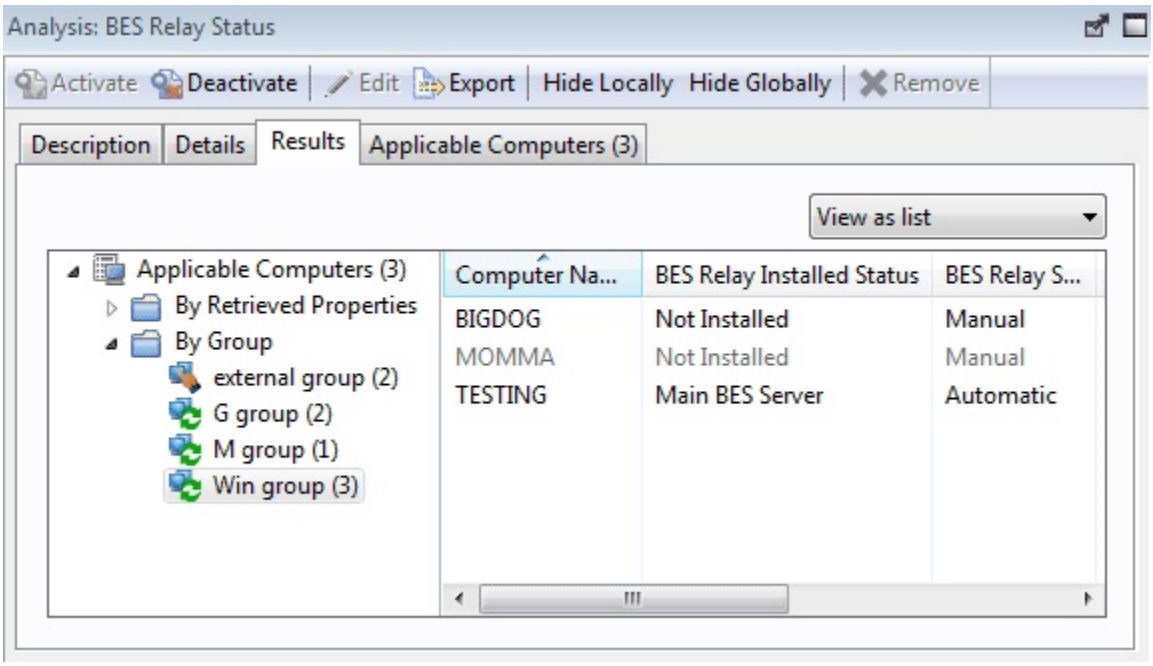


It compiles all the Comments from each of these interfaces for viewing in one place.

You can view the current comments by selecting **Tools > View Recent Comments**.

Results Tab

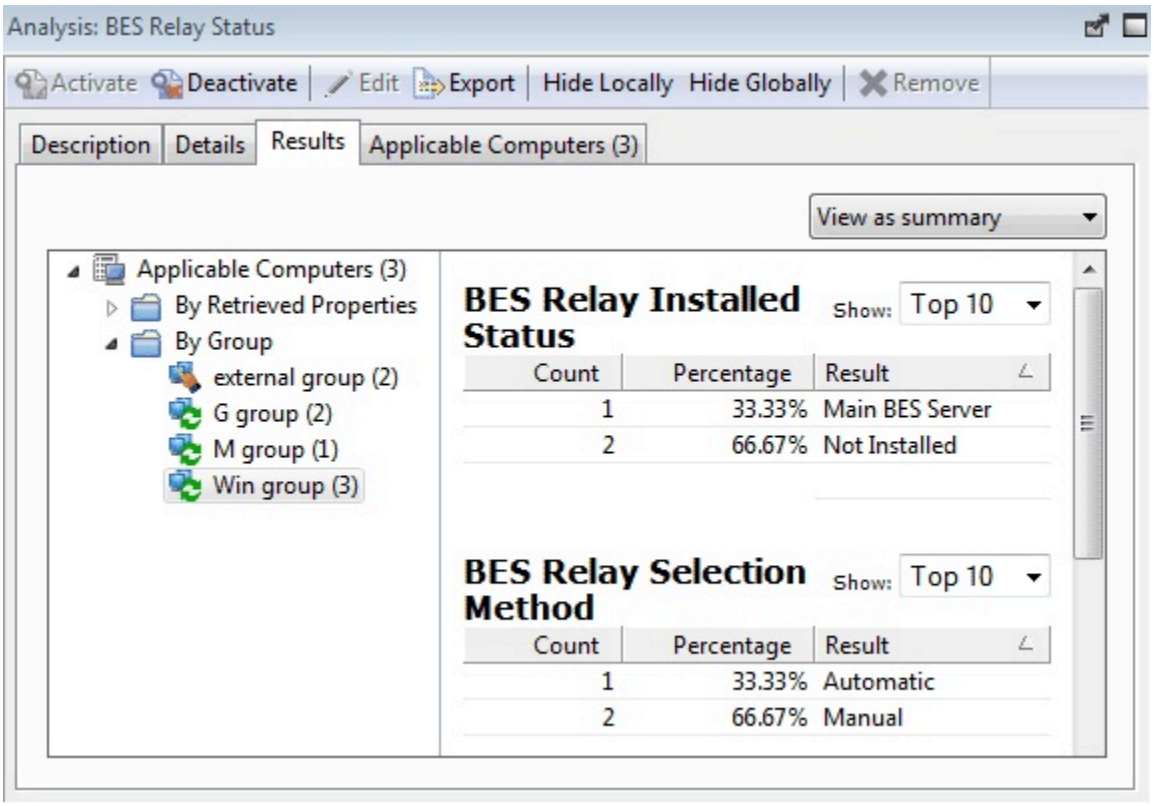
The **Results** tab of the **Analysis** document displays a list of targeted computers and the results of the analysis for each one.



The format of this display depends on the selected View, either **list** or **summary**. The list view is shown above.

When viewed as a list, each specified retrieved property has a corresponding header and the value of each property is displayed beneath it. If there is more than one value for a property, then <multiple results> is displayed. You can sort this list by the headers or use the folders in the left-hand panel to filter the results. This allows you to manage large sets of computers by their retrieved properties.

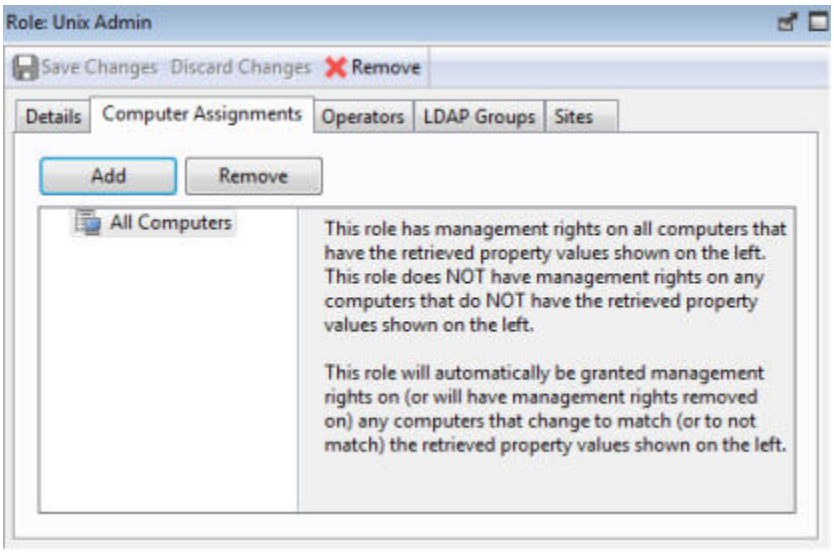
When viewed as a **summary**, each property has its own section, with response counts and percentages for each value of the property.



This dialog is available whenever you select an activated Analysis from an appropriate list.

Role Computer Assignments Tab

The **Computer Assignments** tab of the Roles window allows you to add a set of computers to a role.



Click the Add button to include computers, defined by properties or groups, as a part of this role definition. Make sure to click **Save Changes** before you dismiss this window.

This dialog is presented when you select a role from the Roles list or when you create a role from scratch with **Tools > Create Role**.

Role Details Tab

Roles can be created and defined through the Console.

You can create a role by selecting **Tools > Create Role**. You can modify an existing role by clicking on an item in a Roles List, which is available when you select **Roles** from the Domain panel.

The Roles Detail tab lets you describe the role and set permissions. You can set the permission levels associated to the role, the restart and shutdown ability, and the permissions to access the BigFix user interfaces. The fields listed in this tab correspond to the fields listed in the Operator's Details tab and documented in Adding Local Operators.

This dialog is presented when you select a role from any list of roles.

Role LDAP Groups Tab

The LDAP Group tab of the Roles window allows you to associate an LDAP Group to the Role definition.

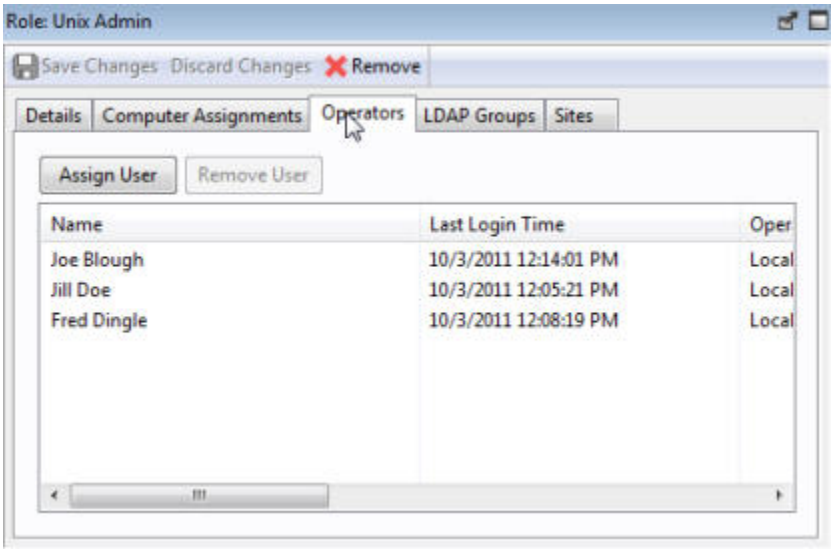
Click **Assign LDAP Group** to bring up a dialog with your currently unassigned LDAP Groups listed for selection. You can also delete groups by selecting their name and clicking **Remove LDAP Group**.

Make sure to click **Save Changes** before you dismiss this window.

This dialog is presented when you select a role from the Roles list or when you create a role from scratch with **Tools > Create Role**.

Role Operators Tab

The **Operators** tab of the Roles window allows you to associate specific local or LDAP-defined users with the given role.



Click the **Assign User** button to bring up the list of currently unassigned users. You can delete users from this role by selecting their names and clicking **Remove User**.

Make sure to click **Save Changes** before you dismiss this window.

This dialog is presented when you select a role from the Roles list or when you create a role from scratch with **Tools > Create Role**.

Role Sites Tab

The **Sites** tab of the Roles window allows you to associate content sites with a given role.

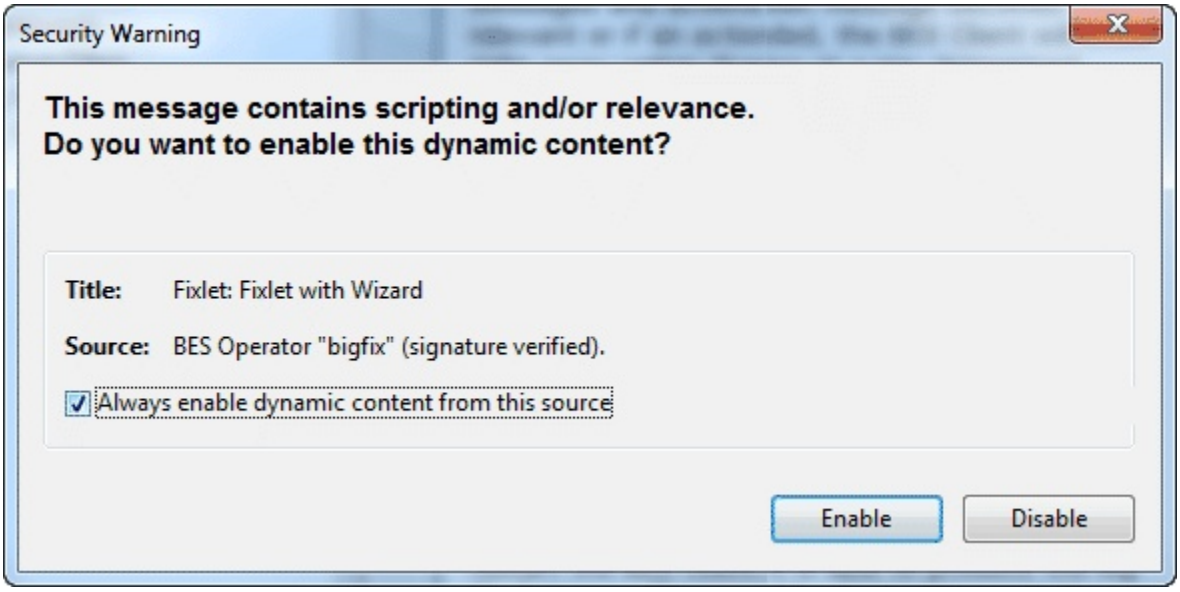
You can add various sites by clicking the **Assign Site** button. Then, for a custom site, you can assign owners and writers to this role.

Make sure to click **Save Changes** before you dismiss this window.

This dialog is presented when you select a role from the Roles list or when you create a role from scratch with **Tools > Create Role**.

Security Warning

The **Security Warning** dialog alerts you about scripting or relevance statements embedded in text.



Whenever the Console detects that an embedded Relevance clause or a script is about to be displayed, this warning pops up. Unlike Action scripts, which require a password before they can be run, embedded scripts are run automatically and thus require scrutiny.

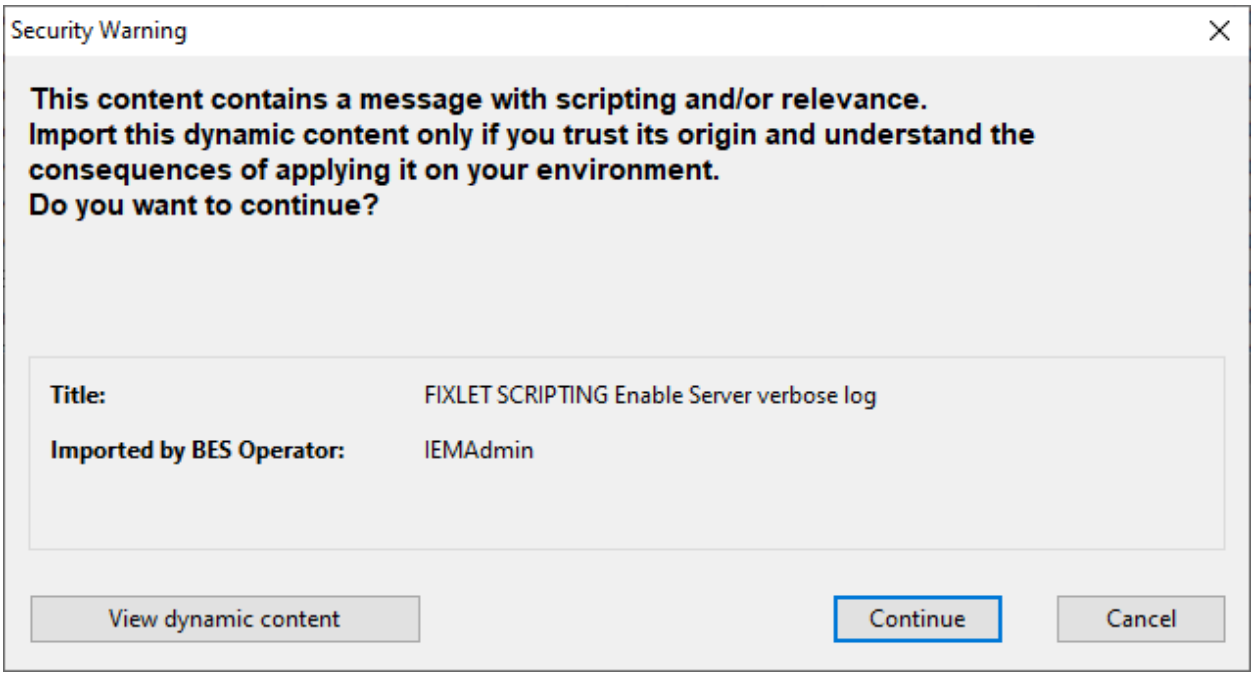
You can click the check box to allow dynamic content from the same source to be enabled on the same machine. In such a case, this pop up will not be displayed and the scripts and/or relevances will always be executed.

If you are uncertain about the source of the embedded script, click **Disable**.

This dialog is displayed whenever content containing a Relevance statement or a script is about to be displayed.

Changes in Version 10.0.8 and later

Starting from BigFix Version 10.0.8, when importing a Fixlet, Task, Action or Baseline which has in its **Description** tab some dynamic content, the following security warning is displayed:

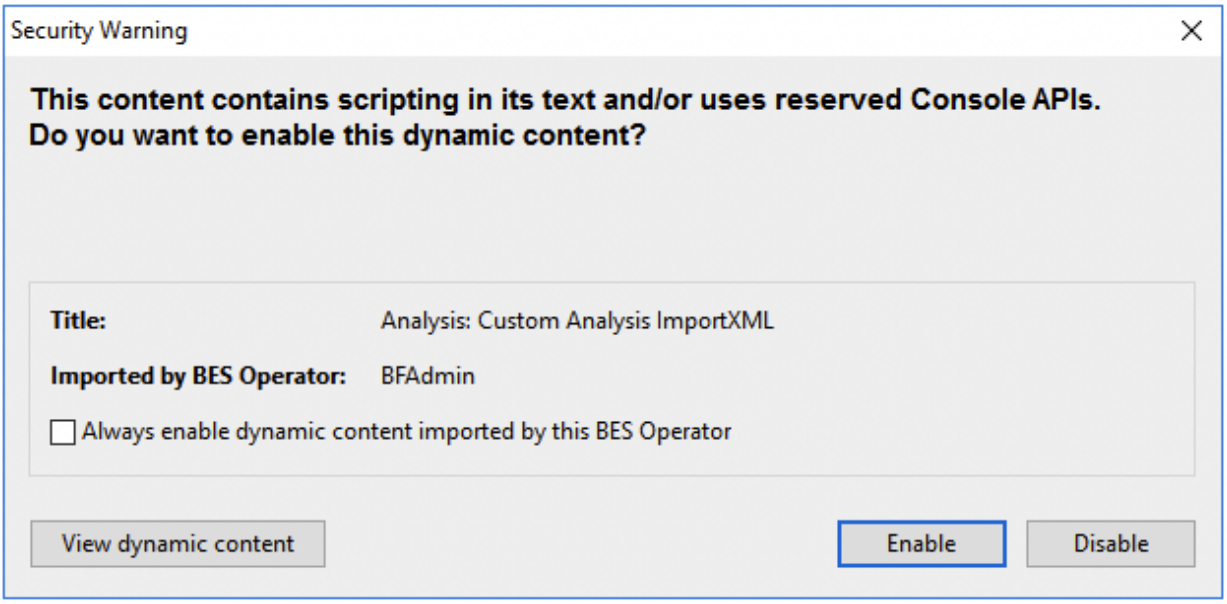


Before importing the content, select **View dynamic content**. Selecting the button, the Console displays the scripts and/or relevances in the description message of the custom content, if present. If no relevance and/or scripts are present, the all dynamic content will be displayed.

Selecting **Cancel**, the dialog is closed and no content is imported.

Selecting **Continue**, the Console will show the summary page, having icons in the descriptions to represent the scripting.

Selecting the icons the script is showed, and selecting **OK** the Console will show the Enable/ Disable dialog.

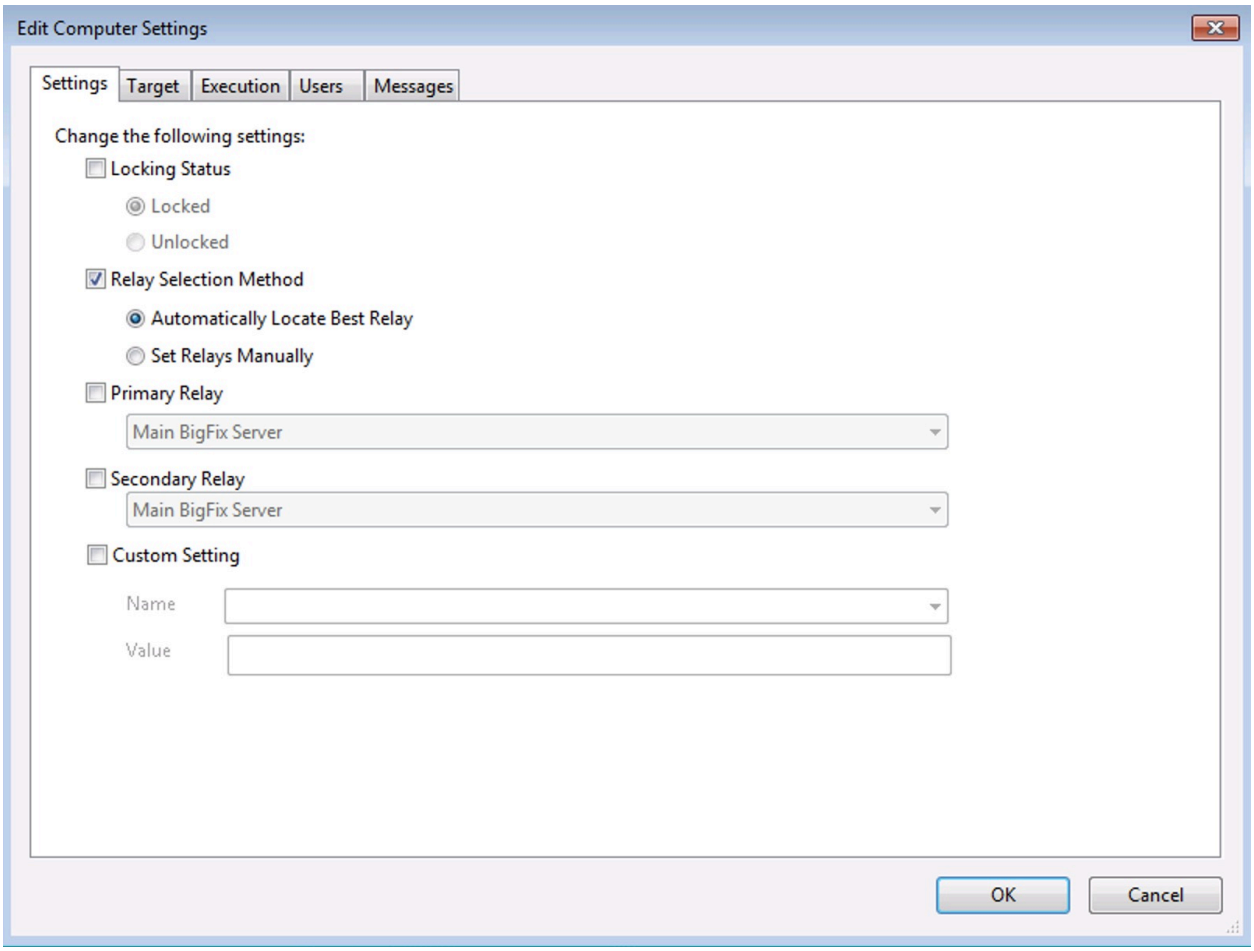


Selecting **Disable** the content is imported but the script in the description is not executed and disabled for the current session.

Selecting **Enable** the script in the description is executed.

Settings Tab

The **Settings** tab of the **Edit Computer Settings** dialog allows the administrator to apply certain settings to multiple targeted computers, including locking, relays, and custom variables.



It includes the following controls:

- **Locking Status.** Check this box to either lock or unlock the targeted computers. You might want to lock a computer because it is currently being used in program development, it is in the middle of a lengthy process, or because it is running specialized software. While a computer is locked, no actions are run on it.

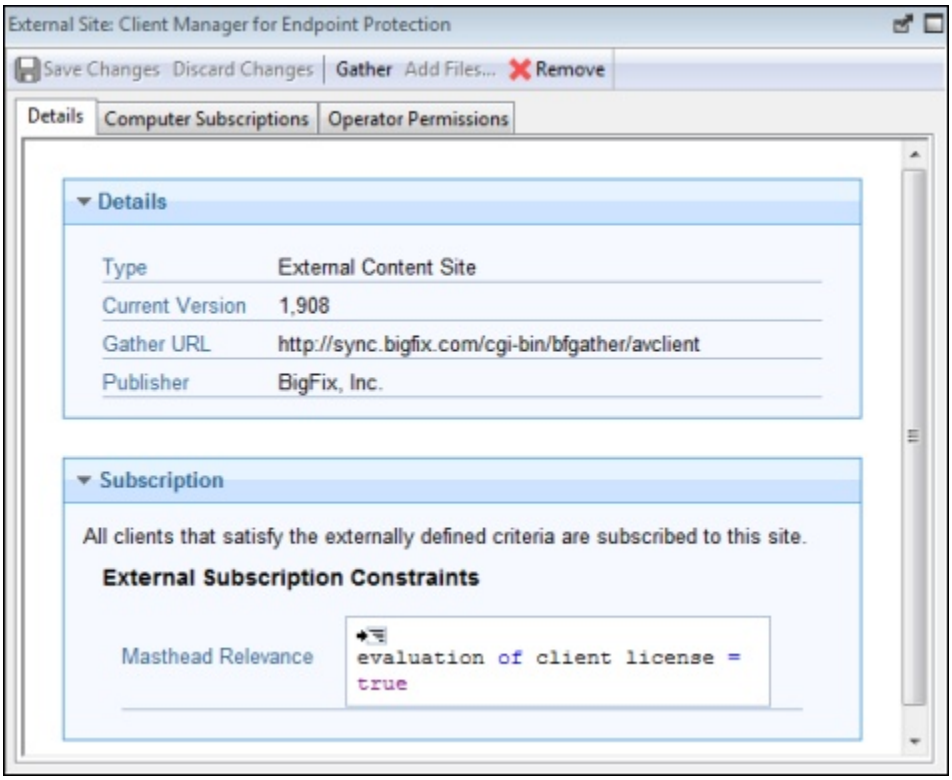
    - **Locked.** Click this button to lock the computer.
    - **Unlocked.** Unlock the targeted computers.
- **Relay Selection Method.** Choose an automatic or manual Relay method.
    - **Automatically Locate Best Relay.** Select this button to automate the process of selecting a Relay. This is the recommended setting.
    - **Set Relays Manually.** Force a manual selection of the BigFix Relays.
- **Primary Relay.** Select a primary Relay. Check the box and select a computer from the pull-down menu. Any attached Clients then gather Fixlet downloads from this relay rather than directly from the BigFix Server.
- **Secondary Relay.** Select a secondary Relay. Check the box and select a computer from the pull-down menu. Any attached Clients then gather Fixlet downloads from this relay if the primary relay is unavailable.

- **Custom Setting.** This feature allows the BigFix Master Operator to create named variables that can be associated with the targeted computers.
    - **Name.** Type the name of a variable to be associated with all targeted computers, for example, "department."
    - **Value.** Enter the value of the above-named variable, for example, "payroll."

When multiple computers are selected, this dialog is available by right-clicking and selecting **Edit Computer Settings** from the context menu.

Site Details Tab

The **Details** tab of the Site document provides you with information about the site and the subscription criteria.



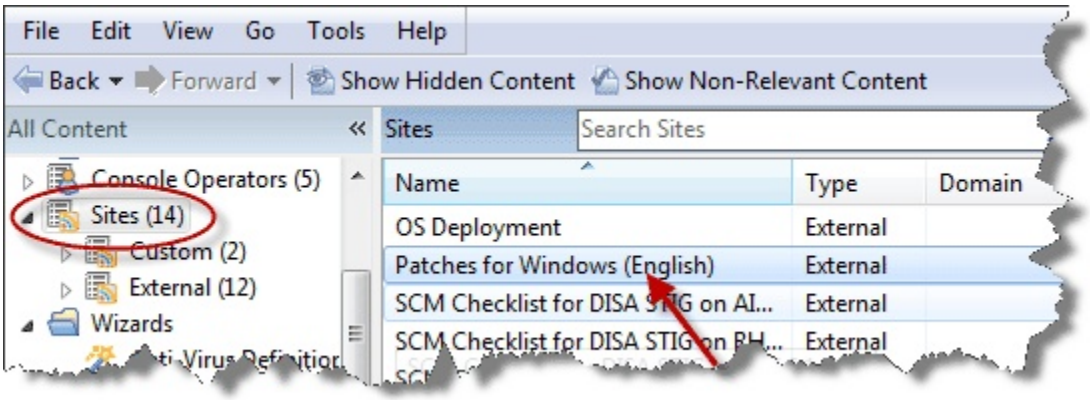
The **Details** group provides information about the version, publisher, and URL of the site.

The **Subscription** group provides information about how the criteria are used to select clients for subscription to the site.

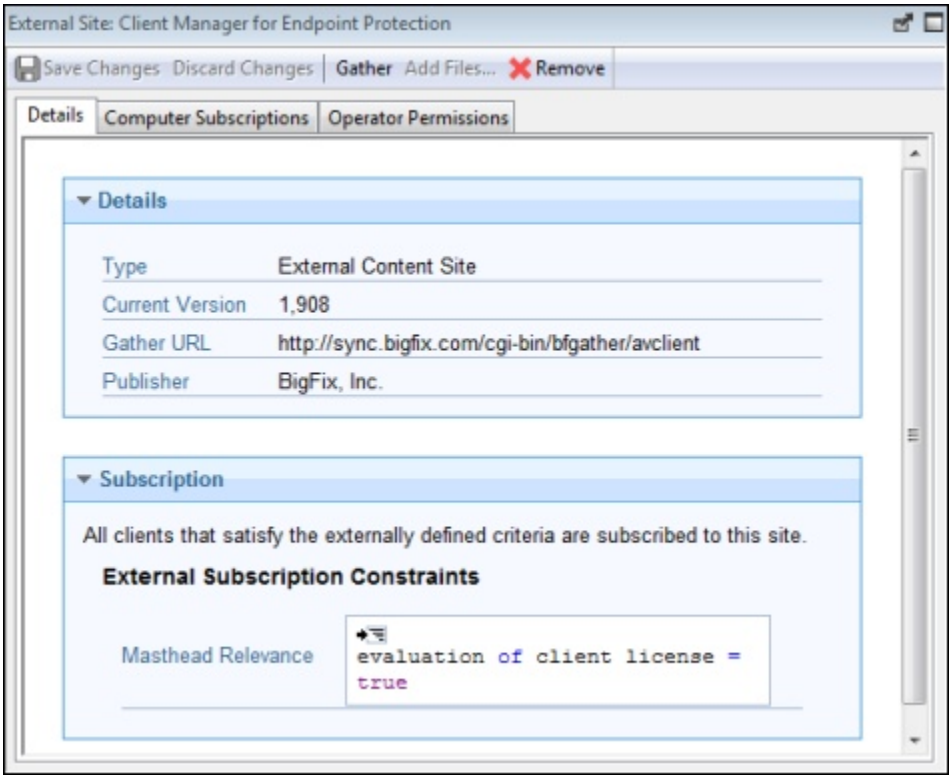
This dialog is available by clicking the **Site** icon in the Domain Panel navigation tree, selecting a Site from the resulting List Panel, and clicking the **Details** tab from the document in the Work Area below.

Site List and Document

A list of Sites is displayed when you click **Sites**, or any of its child nodes, from the Domain Panel navigation tree.



A **Site document** is displayed in the Work Area of the Console when you click any item from this list. If you open the Sites icon, you can filter the sites to either Custom or External types. Click an external site from the list to open it in the Work Area below.



At the top is a toolbar with four buttons:

- **Save Changes:** This button is grayed out for an external site.
- **Discard Changes:** This button is grayed out for an external site.
- **Gather:** This button gathers the contents of the site.
- **Remove:** This button allows you to remove the site from the Console.

Beneath the toolbar are three tabs:

- **Details:** This read-only tab displays the version, URL, and publisher of the site.
- **Computer Subscriptions:** This tab lets you specify which Clients are subscribed to this site.
- **Operator Permissions:** This tab lets you attach Operators to the site as owners, writers, or readers.

You can also create and edit your own Custom sites. If you have any custom sites, click one from the list to view or edit it.



The document for a Custom Site is similar to that for an External site, with added abilities to edit the site. The toolbar has the same four buttons:

- **Save Changes:** After making edits to your Custom Site, click this button to record your changes.
- **Discard Changes:** This button clears all the changes you made.
- **Gather:** Because the contents of a custom site are typically stored locally, this tool might be grayed-out.
- **Remove:** This button allows you to entirely remove the site from the Console.

Beneath the toolbar are the same three tabs:

- **Details:** This tab allows you to view or edit the description of your custom site and to select the Domain you want to host the site.
- **Computer Subscriptions:** This tab lets you specify which Clients are subscribed to this site.
- **Operator Permissions:** This tab lets you attach Operators to the site as owners, writers, or readers.

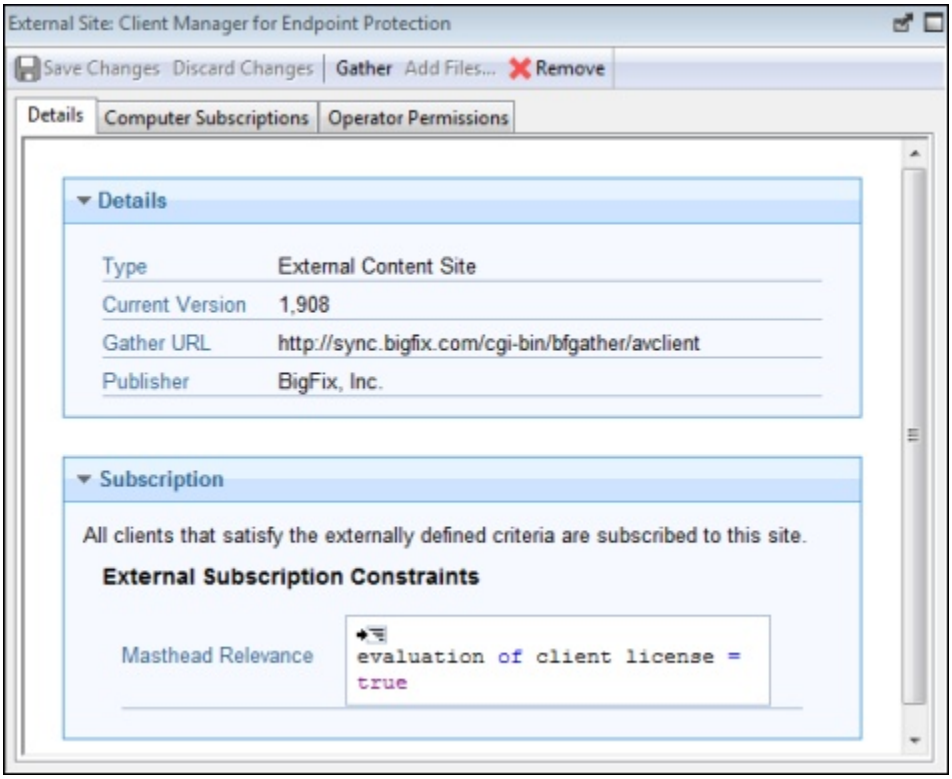
To view the Site list, click the **Sites** Icon (or any of its child nodes) in the Domain Panel navigation tree. Open the icon to narrow down the list to either **Custom** or **External** sites.

To view a **Site Document**, click any item in a site list.

To create a custom site, select **Tools > Create Custom Site**.

Site Properties

The **Site Properties** dialog displays information about the selected Fixlet site, including the name of the Site publisher and the URL from which the content is gathered.



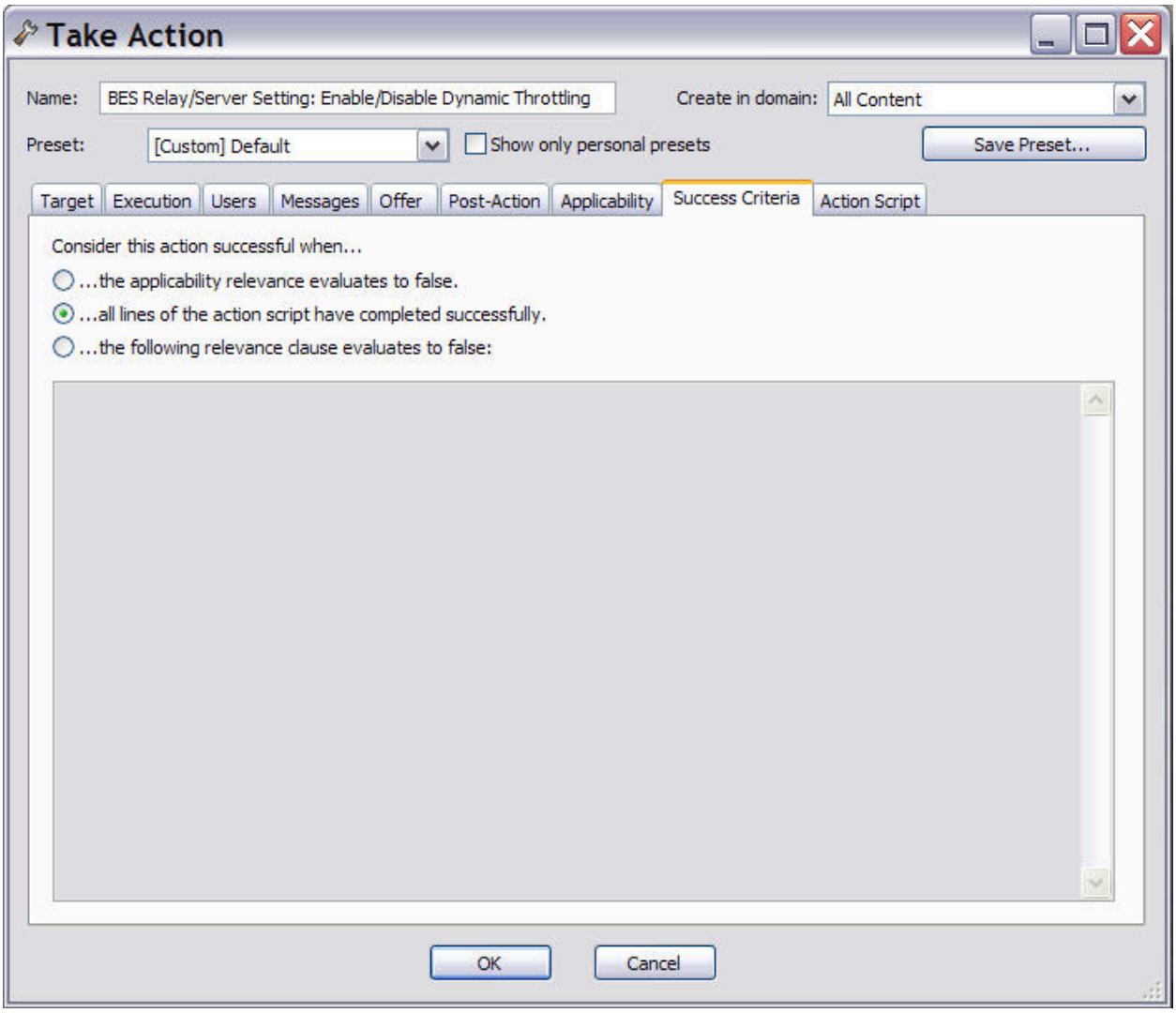
The tabs in this dialog include:

- **Details:** This tab displays the Site type (internal, external), the version, and information about the publisher and subscriptions.
- **Computer Subscriptions:** This dialog allows you to narrow down the list of computers that subscribe to the chosen site. By eliminating superfluous or irrelevant Fixlet subscriptions, you can reduce the disk-storage requirements of your client computers.
- **Operator Permissions:** This is a list of the operators and their permission levels. For an external site, you can typically only grant read access, but for a custom site you can grant ownership, write or read permission.

This dialog is available by clicking the Sites icon in the Domain Panel navigation tree and then clicking an item from the resulting List Panel. The Site information opens in the Work Area below.

Success Criteria tab

In the **Success Criteria**tab, you can define the conditions under which the action is considered to be successful.



This dialog is available by selecting a Fixlet message or task from any list, then clicking an action button. From the Take action (on page 332) dialog, select the **Success Criteria** tab.

Select one of the following options:

The applicability relevance evaluates to false

This is the default success criteria, requiring that the Relevance statement that made the action applicable is no longer TRUE. Because the Relevance statement notices a problem and the action fixes it, this is generally sufficient to establish success.

All lines of the action script have completed successfully

You can make success dependent on completing all steps of the action script.

The following relevance clause evaluates to false

You can use a special Relevance clause to ensure that the action has accomplished it goals. In this case a text box below becomes editable and you can create or revise an existing Relevance clause.

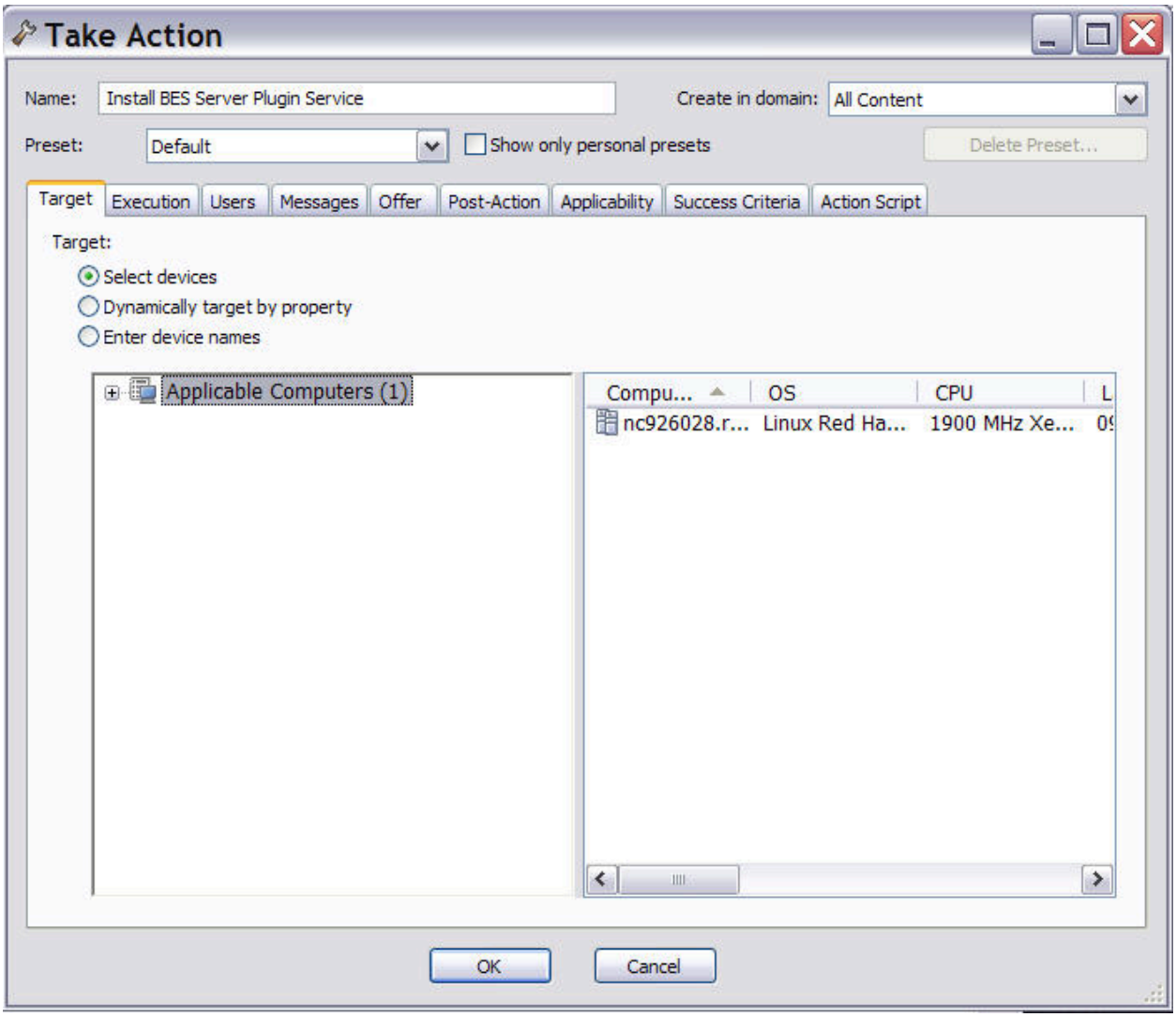
Take action

Use the **Take Action** dialog to run deploy a Fixlet, a task or a baseline.

The **Take Action** dialog is similar to the **Take Multiple Actions** dialog, but issues only a single action.

You can access this dialog in one of these ways:

- Right-click a relevant Fixlet message or a task and choose **Take Default Action** from the pop-up menu.
- Click a relevant Fixlet message or task and select **Take Default Action** in the Work Area toolbar.
- Click a relevant Fixlet message or task and select the **Description** tab. Scroll down to see the suggested actions. Click the link related to the action that you want to run.



Using the input fields and tabs contained in the dialog you can specify exactly how the selected action is to be deployed to the computers in your network. These are the fields and the tabs contained in the dialog:

Name

Is the name of the action.

Create in domain

Represents the domain where you want to store your custom action. **All Content** is the top-level domain, and it includes objects from all domains.

Preset

Specifies a preset customized action. There are two built-in presets available, **Default** and **Policy**. Select **Policy** if you want to set no expiration date for the action. You can also save your current input as a preset, private or public, for later use.

Target tab

Contains the list of targets for the action. You can select the targets of the action from the provided list, or use properties to filter a list or specify a list of target computers. If you click **Select devices** you must select the specific targets in the list. For more information about this tab, see Action: Target *(on page 189)*.

Contains the list of targets for the action. You can select the targets of the action from the provided list, or use properties to filter a list or specify a list of target computers. In the **Select devices** view, you must select specific targets from the list, and in the **Dynamically target by property** view, you must select at least one property. Any selection made on the property tree on the left is maintained through the transition between these views. For more information about this tab, see Action: Target *(on page 189)*.

Execution tab

Contains the time constraints and retry behavior for the action run and failure. For more information about this tab, see Execution Tab *(on page 276)*.

Users tab

Contains the settings to run the action based on which and if specific users are logged on the computer. For more information about this tab, see Users Tab *(on page 341)*.

Messages tab

Contains messages to display before or while the action runs. For more information about this tab, see Messages tab *(on page 296)*.

Offer tab

Specifies whether or not to advertise the existence of programs or patches that your networked Clients can choose to use. This grants extra control to your users to customize their setup. For more information about this tab, see Offer tab *(on page 300)*.

Post-action tab

Lists the activities that must be done to complete the action, including restart or shutdown. For more information about this tab, see Post-Action tab *(on page 304)*.

Applicability tab

Contains the relevance clause that determines the applicability of the action. For more information about this tab, see Applicability tab *(on page 198)*.

Success criteria tab

Specifies what is intended as successful outcome for the action. This tab lets you use different criteria to determine when a problem has been fixed. For more information about this tab, see Success Criteria tab *(on page 330)*.

Action script tab

Contains a script describing the action to run. The script is written using the action language. An operator needs Custom Authoring permissions to edit the action script. For more information about this tab, see Action Script Tab *(on page 180)*

When you decide to run the action, click **OK** and enter your password. A progress dialog is displayed to keep you informed about the deployment of the action. You can also monitor how the action is being processed following the instructions provided in Monitoring an action taken (on page 38).

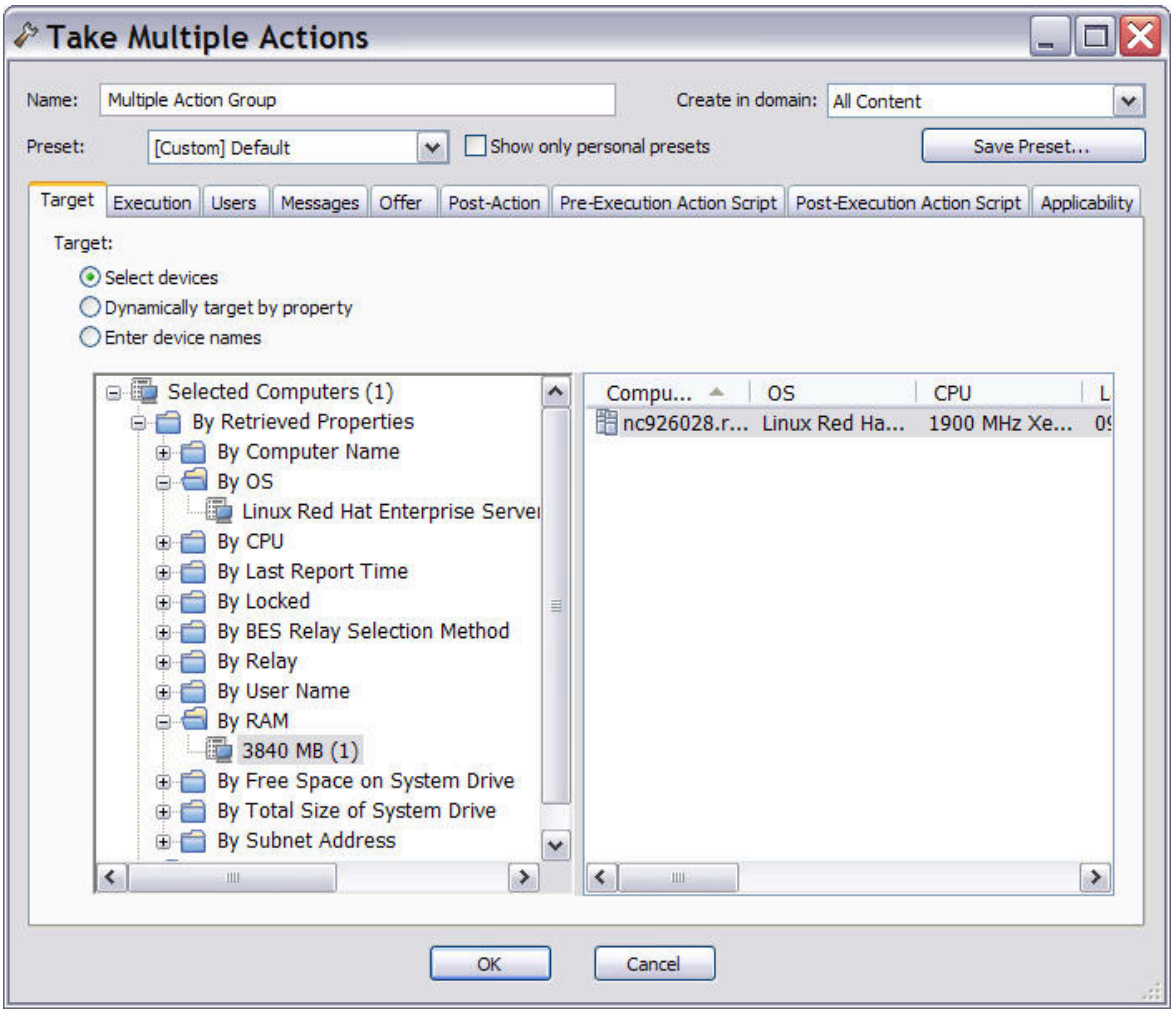
Take multiple actions

In the **Take multiple actions** dialog you specify the settings for deploying a set of Fixlets or tasks in a single grouping.

As a requirement, each Fixlet or task involved in the group must have associated a default action.

These is how you can accomplish this task:

1. Right-click a selected group of tasks or Fixlets containing default actions.
2. Select **Take Default Action**. The **Take Multiple Actions** dialog opens.



3. In this dialog, specify how the selected actions must be deployed to the computers in your network. The input fields contained in the dialog are the same as those contained in the Take action *(on page 332)* display with the exception of the following additional fields:

   Run all members actions of action group regardless of errors

This field belongs to the **Execution** tab and specifies whether the action run should stop if an error occurs for one or more object of the group or not.

Pre-Execution Action Script tab

Lets you specify an Action Script to run before the group of Actions is deployed.

Post-Execution Action Script

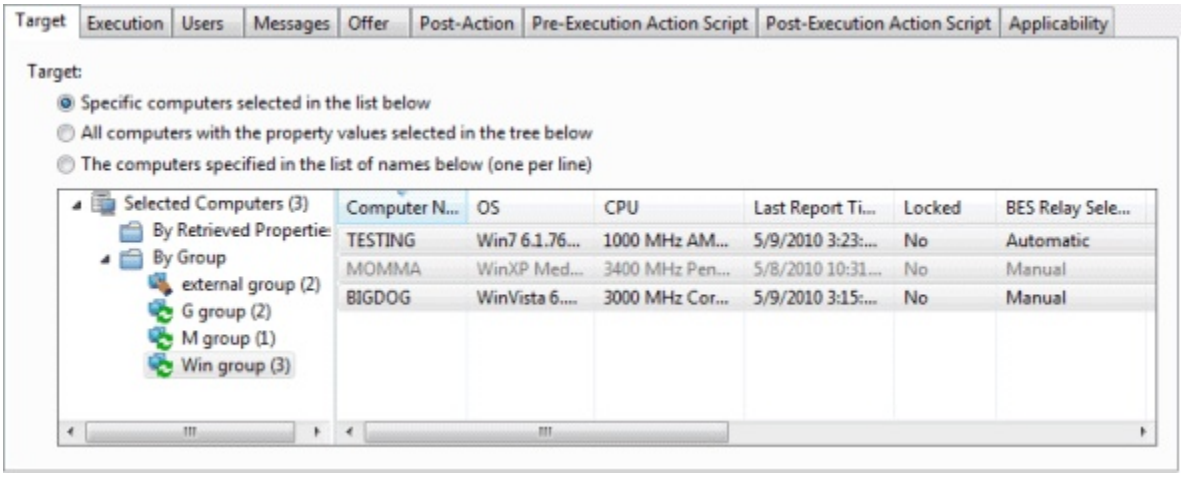
Lets you specify an Action Script to run after the group of Actions is deployed.

4. When you finish editing, click **OK** to deploy the action.
5. Enter your authentication password and click **OK**. A progress dialog opens to keep you informed about the stage of the deployment.

Note: The difference between grouping Fixlets or tasks and creating a baseline containing the same set of object is that the objects contained in the baseline are bound in sequence.

Target Tab

The **Target** tab can be found in various Action dialogs.



When an Action becomes relevant, the Console operator can target a subset of users to receive the action.

There are three radio buttons at the top of this dialog:

- **Specific Computers selected in the list below.** When you select this button, only those Clients highlighted in the computer list receive the actions. This is the default behavior. Note that you can filter this computer list by selecting items from the tree view in the left panel. When you click **OK**, the selection of computers in this list is frozen, the retrieved values are not reevaluated before the action is deployed. Thus, if a computer is affected by this problem in the future, it is not covered by this option. It triggers the same Fixlet, but requires you to target it again.
- **All Computers with the Retrieved Properties values selected in the tree below.** This button causes continued evaluation of BigFix Client computers for relevance if they match the selected properties. Unlike the scenario described above, if a new computer is affected by this problem in the future, it is automatically updated. You can also filter this set of relevant computers using the retrieved property panel on the left. Because of the open-ended nature of this function, you might want to use the Execution tab to define an expiration date.
- **The computers specified in the list of names below.** This button allows you to enter (or paste) a list of specific computers. Format the list with computer names (as displayed in the Console), separated by newlines.

These options grant you great power over the deployment of Fixlet actions. Think carefully about your choices here. The first button is the safest, because it describes a static set of computers that you want to target. The second choice is more powerful, because it continues to evaluate and automatically deploy relevant actions, but it could also have long-term consequences that you should consider. The third choice allows you to deploy to a specific list of computers, for fine-grain control over your deployment.

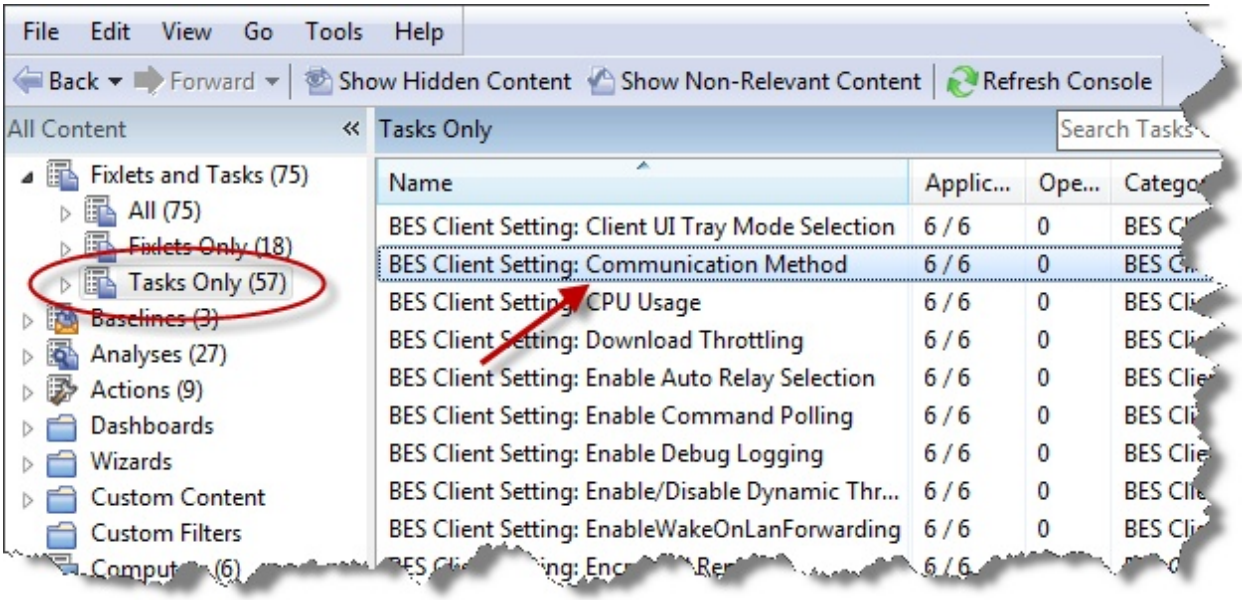
This tab is available from several different dialogs:

Take Action, **Take Multiple Actions** and **Edit Computer Settings**.

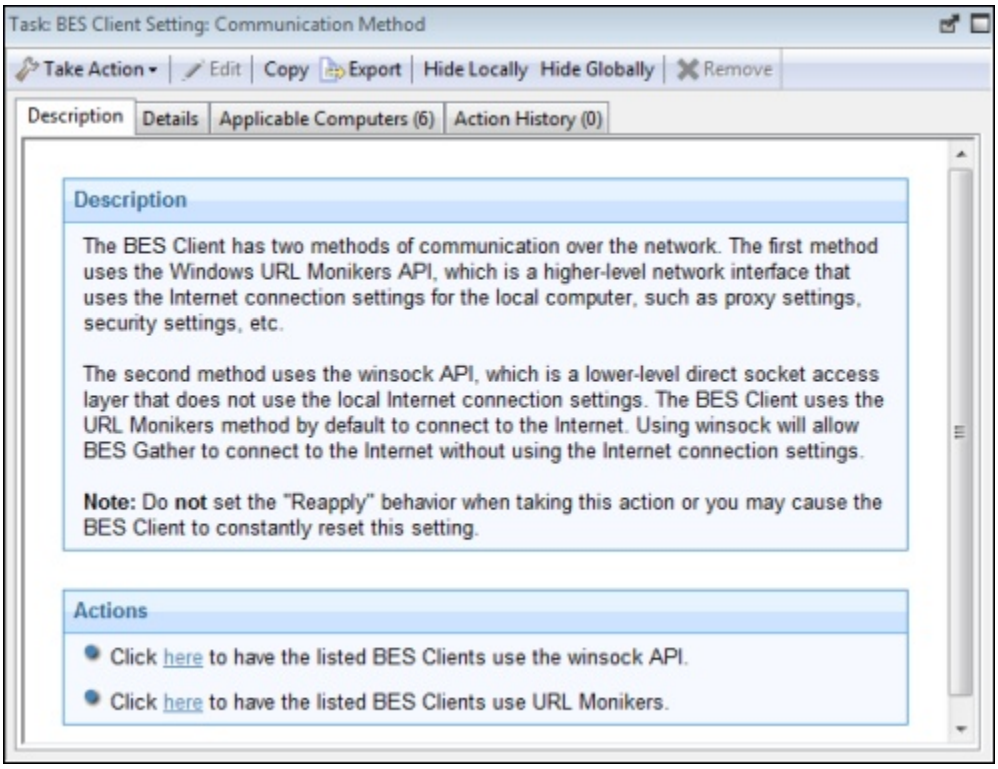
Task List and Document

A list is created whenever you click **Fixlets and Tasks** from the Domain Panel navigation tree.

This list incorporates both Fixlets and Tasks, which you can filter by opening the Fixlet and Tasks icon and clicking **All Tasks** beneath it.



The List Panel on the right now contains all the currently relevant Tasks. The **Task document** is displayed in the Work Area of the Console when you click any item in the list.



At the top of the Task document is the name. Beneath that is a toolbar with the following tools:

- **Take Action:** This tool runs the default action of the Fixlet.
- **Edit:** This option lets you edit the Fixlet. This tool is only available for custom Fixlets that you created yourself.
- **Copy:** This option lets you copy or clone the Fixlet to customize what it does.
- **Export:** This tool allows you to export the Fixlet for editing in an external editor.
- **Hide Locally:** Hides the Fixlet on this version of the Console.
- **Hide Globally:** Hides the Fixlet on all Consoles.
- **Remove:** Deletes this Fixlet (only available for Custom Fixlets).

There are several tabs in a Task document. They include:

- **Description:** A text version of the Task, describing the problem and offering one or more Action buttons or links to resolve the issue. You can search any of the HTML interfaces in the Console by pressing Ctrl-F and then entering your search string.
- **Details:** A list of the properties, Relevance statements, and Actions that constitute the Task.
- **Applicable Computers:** Lists the subset of computers that are targeted by the Task.
- **Action History:** Shows the history of the Action deployment. This list is empty unless the Action associated with the Task has already been triggered.

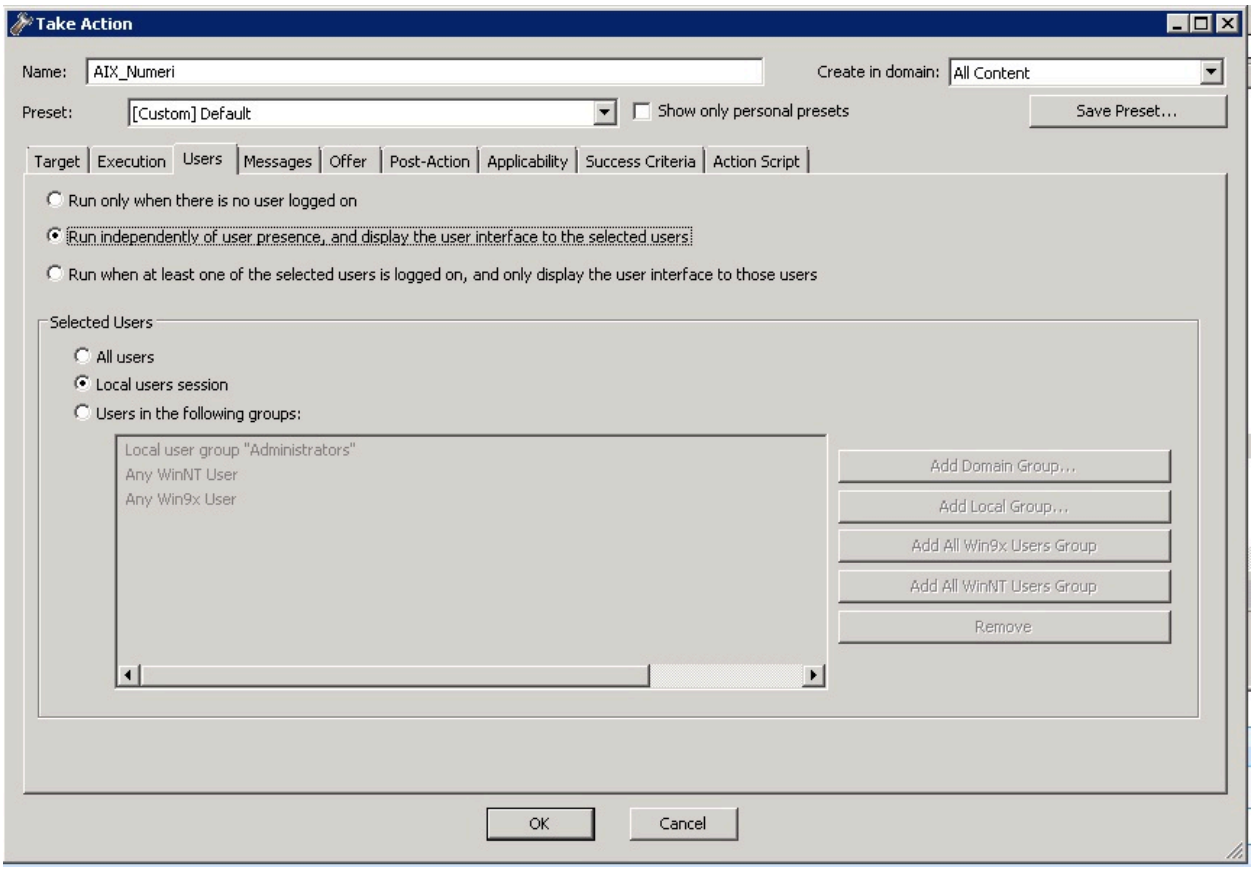
To display a Task list, click the **Tasks** icon under the **Fixlets and Tasks** icon in the Domain Panel navigation tree.

A **Task document** is opened whenever you open an item in a Task list.

Users Tab

The **Users** tab can be found in various action dialogs. In this tab you can fine tune the delivery of actions based on the presence of users.

For example, you can target long installations to just those computers where the users have logged off, ensuring that no downtime is incurred by the installation.



This tab is available from several different dialogs:

- Take action *(on page 332)*
- Take multiple actions *(on page 335)*
- Action Settings *(on page 183)*
- Edit Computer Settings *(on page 261)*

You can select one of the following options:

Run only when there is no user logged on

Choose this option for long installations that might happen overnight, but only on logged-off clients.

Run independently of user presence, and display the user interface to the specified users

This can be useful for critical patches or small, silent updates. You can specify a set of users that are allowed to view the BigFix Client interface.

Run when at least one of the specified users is logged on, and only display the user interface to those users

Choose this option when the action requires feedback or intervention from specific groups of users.

You can also select users and user's group to interact with the user interface. Select one of the following values:

All users

Click this button to select all users.

Local users session

Click this button to select the local users session only.

Users in the following groups

Select users from the group below:

Add Domain Group

Add an Windows NT Domain group of users.

Add Local Group

Add a local Windows NT or Vista group to the set of users.

Add All Win9x Users Group

Add users who are logged in to Windows 9x Clients.

Add All WinNT Users Group

Add users who are logged in as Windows NT users.

Remove

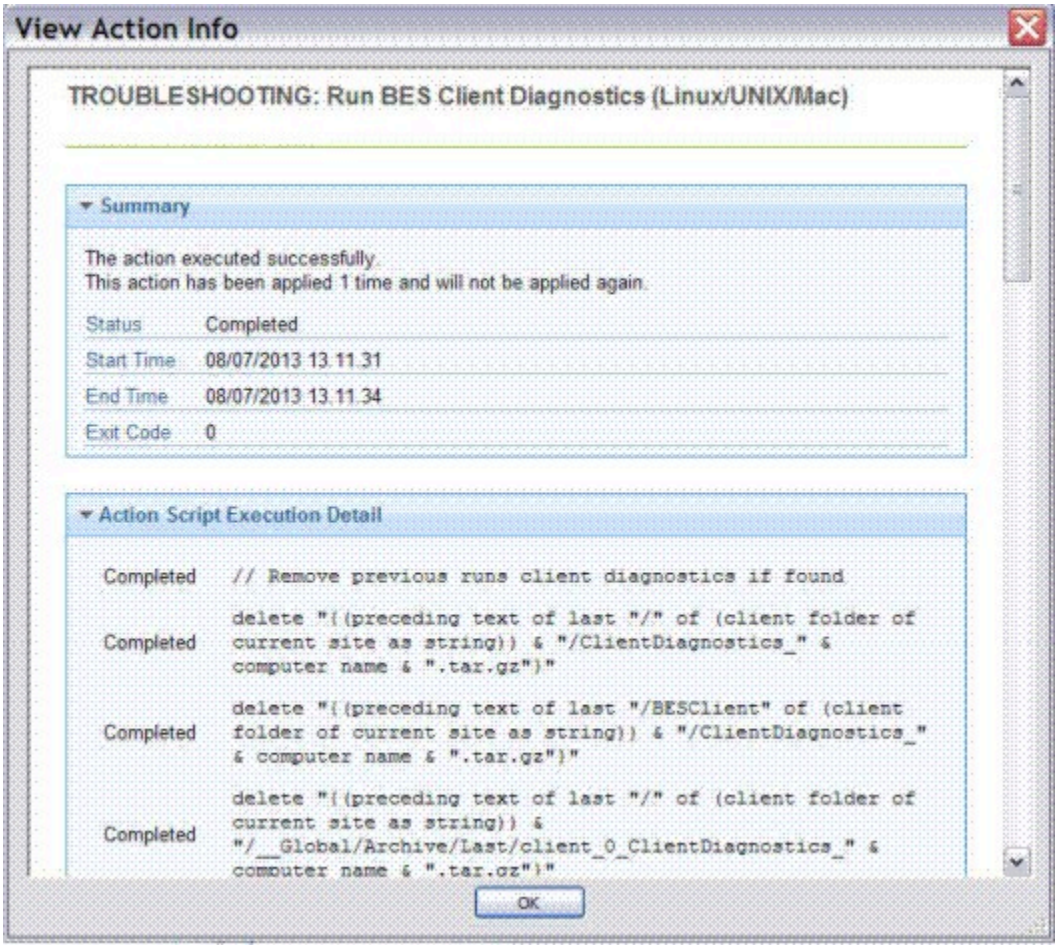
Remove the selected user group from the list.

View action info

This dialog is available from any open **Action** document.

Select the **Computers** tab in the Work Area, right-click any computer in the list, and either select **Show Action Info** from the context menu or select **Show Action Info** from the **Edit** menu.

The **View Action Info** dialog displays information about a specific action for a given computer.



Title

Shows the title of the Fixlet or task that initiated the action.

Summary

A summation of the action deployment for this computer. It includes the current **Status**, the **Start** and **End Time** for the run of the action, and any **Exit Code** that might be returned by the action.

Action Script Execution Detail

The result of each step included in the triggered action.

Chapter 16. Disabling local operators on BigFix Console

Starting from BigFix Version 10.0.8, you can decide to disable the local operators from logging into the BigFix Console, to use LDAP operators instead.

For details about how to disable the local operators, see the **securitysettings** described in BESAdmin Windows Command Line and BESAdmin Linux Command Line.

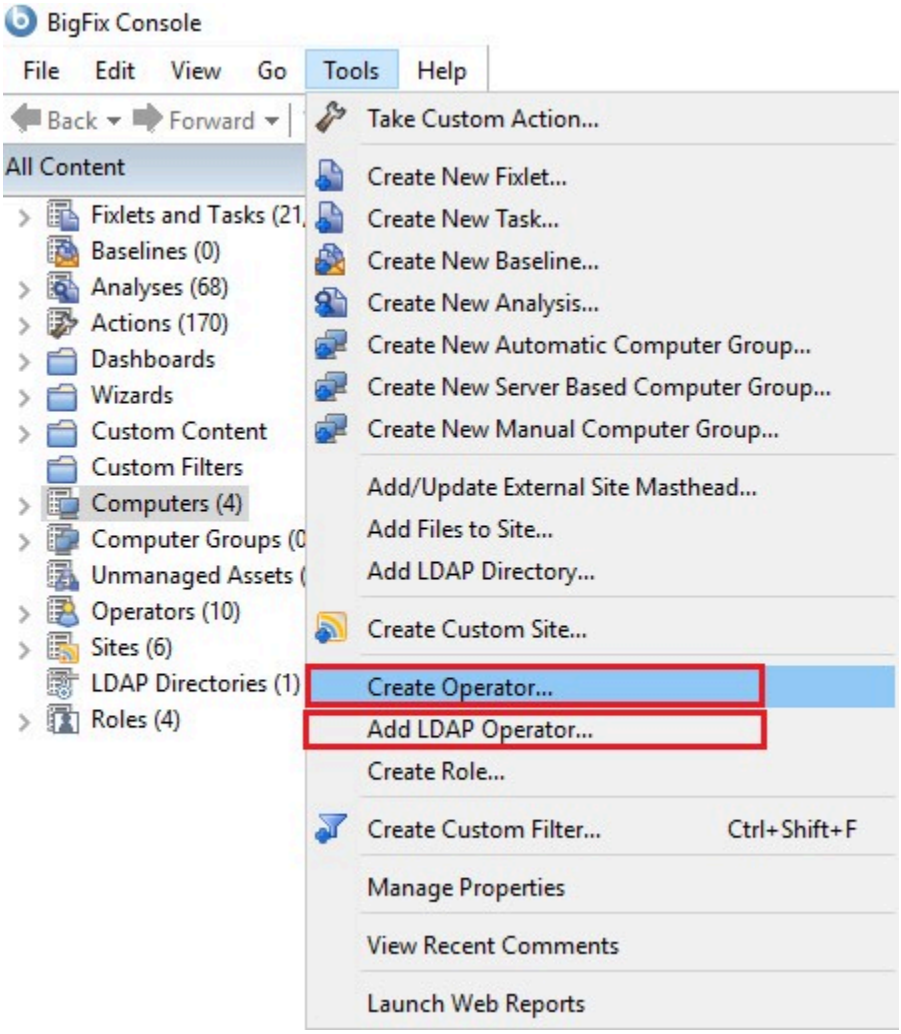
After you disable the local operators, when a local operator attempts to log into the BigFix Console, the following error message is displayed by the Console:

```
The login operation using a local operator is not allowed.
```

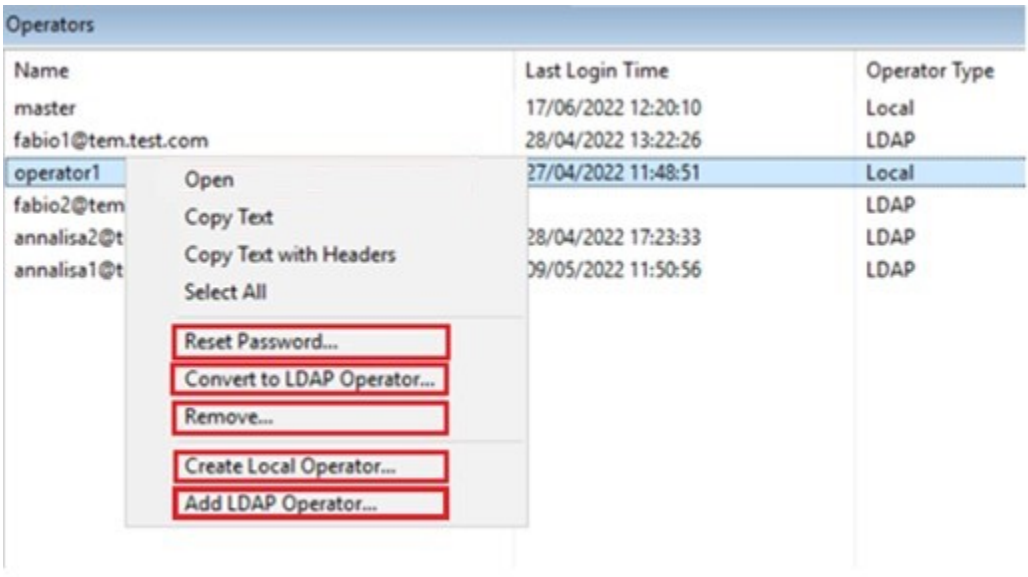
Furthermore, when you log in using an LDAP user and local operators are disabled, several menu items, buttons and forms will be greyed out in order to avoid accounting operations on both local operators or LDAP users. It will be still possible to associate LDAP groups with BigFix roles and to login with an LDAP user belonging to an LDAP group associated with a BigFix role.

The roles will be inherited according to the LDAP groups - BigFix roles association.

Under **Tools**, the following menu items will be greyed out:

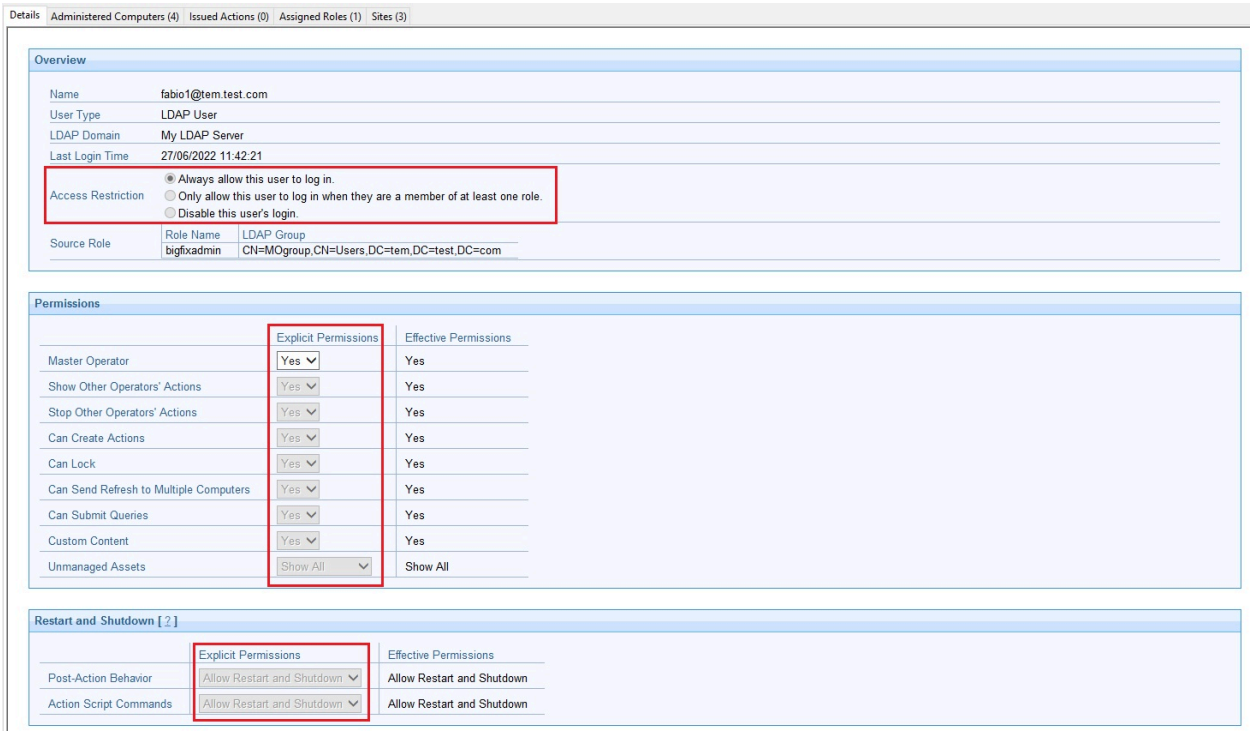


In the **Operators** form contextual menu, the following items will be greyed out. The **Remove** button will still be enabled for the LDAP operators.

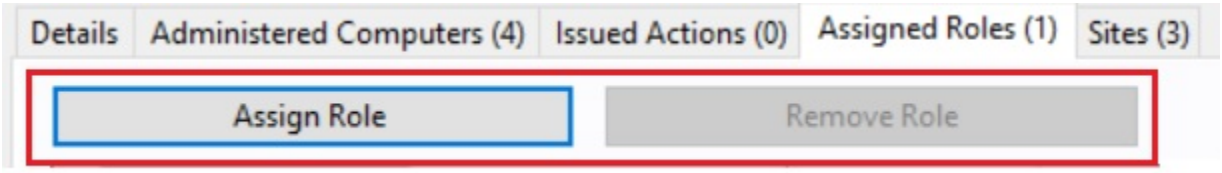


In the Operators form, after the selection of an operator, the following buttons will be greyed out: **Save Changes, Discard Changes, Remove, Reset Password**. The **Remove** button will still be enabled for the LDAP operators.

In the Operators form, the **Details** tab will be modified. The **Access Restriction** group and the **Explicit Permissions** columns will be hidden. Additionally, the **Effective Permissions** column will be renamed in **Permissions**.



In the Assigned Roles tab of the Operators form, the **Assign Role** and **Remove Role** buttons will be greyed out.



In the Sites tab of the Operators form, the following buttons will be greyed out: **Assign Site, Remove Site, Owner, Writer, Reader**. Additionally the **Explicit Permissions** columns will be hidden and the **Effective Permissions** column will be renamed in **Permissions**.

In the Operators form, the **Computer Assignments** tab will be hidden.

In the WebUI Apps tab of the Operators form, the buttons **Allow** and **None** will be greyed out. Additionally the **Explicit Permissions** columns will be hidden and the **Effective Permissions** column will be renamed in **Permissions**.

In the Operators tab of the Roles form, the **Assign User** and **Remove User** buttons will be greyed out.

In the Operator Permissions tab of the WebUI App form, the **Allow** and **None** buttons will be greyed out. Additionally the **Explicit Permissions** columns will be hidden and the **Effective Permissions** column will be renamed in **Permissions**.

Chapter 17. Read only users

Starting with BigFix Platform Version 11.0.7, Read-Only Users are available.

A Read-Only User is a restricted operator managed by a Master Operator (MO). This user can be granted visibility into assigned sites and computers, but cannot perform actions that affect endpoint state, such as sending refreshes, creating custom content, creating custom actions, or deploying actions. As with standard operators, sites can be assigned to this user, but only with **Reader** access.

Read-Only operators are a special type of BigFix operators designed for scenarios where users need to view data (computers, sites, Fixlet content) through the evaluation of relevance expressions without the overhead and security implications of a full operator account.

Read-Only operators can be either local operators or Identity Provider operators.

Read-Only operators can only log in to the BigFix Explorer REST APIs. They cannot log in to the BigFix Console, WebUI, or the BigFix Server REST APIs.

Prerequisites

- BigFix Explorer must be installed and available in the deployment. The BigFix Console will disable the **Read-only user** check box in the **Create Operator** dialog if BigFix Explorer is not detected.
- The Read-Only operator must be created by a Master Operator (MO).

Creating a Read-Only Operator using the Console

1. Open the BigFix Console as a Master Operator.
2. Navigate to All Content → Operators and right-click **Create Local Operator**.
3. In the **Create Operator** dialog, select the **Read-only user** check box.
4. Enter a username and password, then click **OK**.



Note: When a Master Operator creates a Read-Only Operator, this Read-Only Operator cannot be modified later on into a non Read-Only Operator or vice versa.

Note: If BigFix Explorer is not available, the **Read-only user** check box is greyed out.

Creating a Read-Only Operator using the Server REST API

Send a POST request to /api/operators:

```
<BESAPI>
 <Operator>
 <Name>readonly_user</Name>
 <ReadOnly>true</ReadOnly>
 <Password>securepassword</Password>
 <MasterOperator>false</MasterOperator>
 <InterfaceLogins>
 <Console>false</Console>
 <WebUI>false</WebUI>
 <Explorer>true</Explorer>
 <API>false</API>
 </InterfaceLogins>
 </Operator>
</BESAPI>
```

The server enforces that:

- MasterOperator cannot be true for a Read-Only operator.
- ComputerAssignments cannot be included directly.
- Permission flags that are not valid for Read-Only operators (CanCreateActions, CustomContent, etc.) are rejected.

Assigning a Role

A Read-Only operator cannot have computers or sites assigned directly. All visibility is inherited exclusively through the role assignments.

To assign a role:

1. Open the BigFix Console as a Master Operator.
2. Navigate to All Content → Roles and open the desired role.
3. In the **Operator Assignments** tab, add the Read-Only operator to the role.

Alternatively, use the REST API:

```
PUT /api/role/{roleID}
```

Include the Read-Only operator in the role operator list.

Managing Read-Only Operators

To view these operators, open the Read-Only operator in the Console. You will see:

- **Details** tab: All permission controls are disabled (greyed out), except for "Show Other Operators' Actions", "Unmanaged Assets" and the interface login privilege "Can use Explorer".
- **Sites** tab: Shows inherited site visibility. All modification buttons (Reader/Writer/Owner/Add/Remove) are disabled.
- **Visible Computers** tab: Shows computers visible through role assignments. The tab is labeled "Visible Computers" (not "Administered Computers"). Computer assignments cannot be modified.

Changes to a Read-Only operator visibility are made by modifying their role assignments. Read-Only operators can be deleted like any other operator as follows:

- BigFix Console: Right-click → **Delete**.
- BigFix Server REST API: `DELETE /api/operator/{name}`

Visibility Calculation (Explorer)

When a Read-Only operator logs in to the BigFix Explorer, their visibility is calculated as follows:

Site Visibility

- Role site permissions: Sites explicitly listed in the operator assigned roles are visible.
- MO role inheritance: If any assigned role has Master Operator privilege, all custom and external sites become visible.
- Globally readable sites: Sites marked as globally readable are visible.
- Permission cap: Regardless of the role grant level (Writer, Owner), the effective permission for a Read-Only operator is always capped at Reader.

Computer Visibility

- Computers are visible through the computer assignments of the operator roles.
- If any assigned role has Master Operator privilege, all computers are visible.
- A Read-Only operator does not have an operator site, so there are no computers "subscribed to" their own site.

Summary

```
Effective Site Permission = min(Role-granted permission, SiteReader)
Visible Computers = Union of all role computer assignments
```

Use Case: Running Relevance Expressions in BigFix Explorer

Scenario

An organization needs a service account or analyst user that can:

- Query computer properties across the deployment using relevance expressions.
- Retrieve Fixlet applicability and site content for reporting or automation.
- Not have the ability to create actions, modify content, or affect endpoints.

Solution

Create a Read-Only operator and assign it to a role with the appropriate computer and site visibility. The operator can then use the BigFix Explorer REST API to evaluate relevances:

```
POST /api/relevance
Content-Type: application/json
Authorization: Basic <credentials>
```

```
{
  "relevance": "names of bes computers whose (operating system of it
contains \"Windows\")"
}
```

The response contains the evaluation result:

```
{
  "result": ["DESKTOP-001", "DESKTOP-002", "SERVER-003"],
  "count": 3,
  "plural": true,
  "type": "string",
  "evaltime_ms": 0.698
}
```

Advantages over Normal Operators

Aspect	Normal Operator	Read-Only Operator
Operator site	Created and propagated to all clients via relays	None - No operator site is created
Client overhead	Every client gathers the operator site periodically	Zero - Clients are unaware of the operator
Relay caching	Relay caches operator site content	None
Bandwidth	Each client downloads the operator site data	Zero additional bandwidth
Security	Can potentially create actions if misconfigured	Cannot create actions or modify content under any circumstance
Scalability	Each operator adds load to the propagation system	No propagation overhead - Ideal for service accounts,

Aspect	Normal Operator	Read-Only Operator
		API integrations, and read-only analysts

Key Benefits

In large deployments with thousands of endpoints, every normal operator creates an operator site that is deployed to (and gathered by) all managed clients. This adds network traffic, relay load, and propagation overhead. Read Only operators avoid this entirely — they have no operator site and impose zero overhead on the client infrastructure. This makes them ideal for:

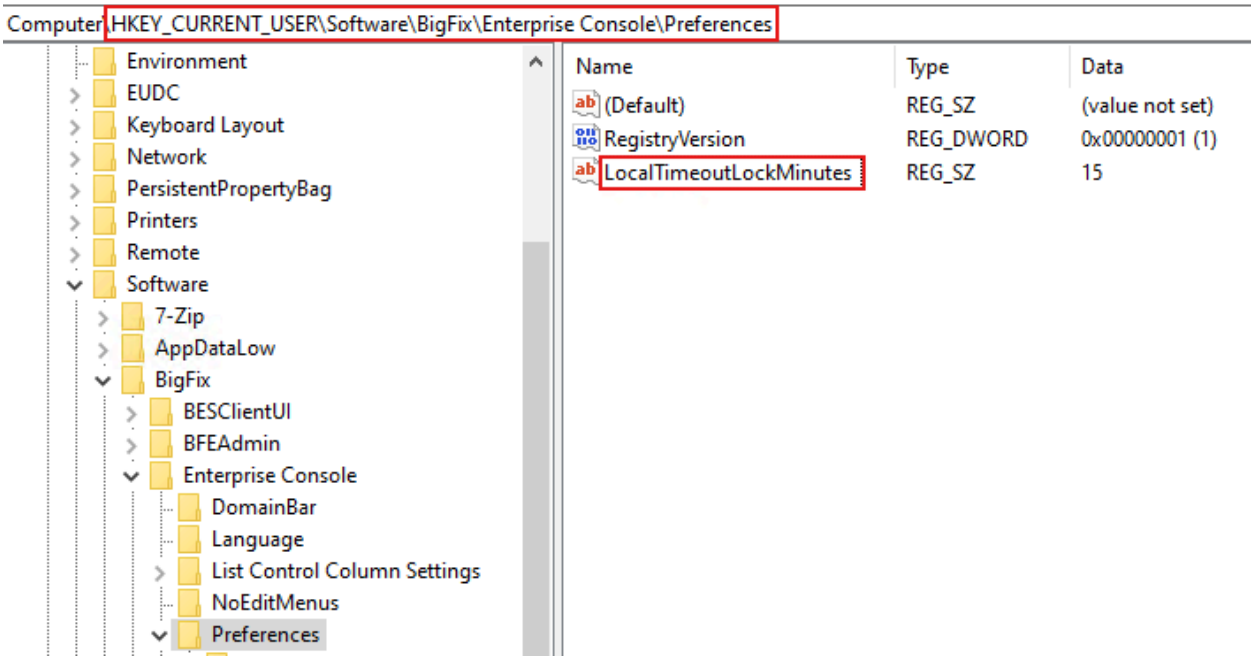
- Automation service accounts that only need to read data via the BigFix Explorer REST API.
- Reporting tools that periodically query deployment state.
- Security auditors who need visibility without write access.
- Dashboard integrations that evaluate relevance expressions for visualization.

Chapter 18. Setting the BigFix Console lock timeout

Starting from BigFix Version 11.0.7, you can use a new setting controlling the BigFix Console lock timeout, named LocalTimeoutLockMinutes, which is configurable locally on the selected BigFix Console instances.

This way, the BigFix Console will be locked after the configured timeout, but it will keep synchronizing with the BigFix Root Server.

To configure it on the selected Consoles, the LocalTimeoutLockMinutes setting must be added to the Windows Registry, under the `HKEY_CURRENT_USER\Software\BigFix\Enterprise Console\Preferences` path, as REG_SZ, specifying the timeout value in minutes, as shown in the image below.



Setting the value for LocalTimeoutLockMinutes, in the Windows Registry of the local BigFix Console instance, overrides the value specified for the advanced setting named `timeoutLockMinutes` described in List of advanced options.

Appendix A. Support

For more information about this product, see the following resources:

- BigFix Support Portal
- BigFix Developer
- BigFix Playlist on YouTube
- BigFix Tech Advisors channel on YouTube
- BigFix Forum

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