



WebView User Guide

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Wily Technology, Inc.
8000 Marina Boulevard, Suite 700
Brisbane, CA 94005

1 888 GET WILY < US Toll Free >
415 562 2000 < phone >
415 562 2100 < fax >

www.wilytech.com

Introscope WebView 6.0 User Guide

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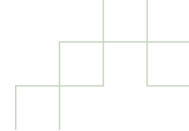
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Preface

Introscope® is a system management application created to help you manage Java Application performance. Unlike development tools, Introscope® is designed to scale with minimal performance impact. This allows you to monitor and manage your application performance in live production environments. Introscope WebView provides a browser-based window into your Introscope deployment.

Introscope WebView User Guide Audience

This book is written for those deploying Introscope WebView.

Introscope 6.0 User Guides

Introscope documentation is comprised of the following guides:

- Introscope 6.0 Upgrade Guide
- Introscope 6.0 Installation and Configuration Guide
- Introscope 6.0 Workstation Guide
- Introscope 6.0 WebView Guide

Introscope 6.0 Upgrade Guide

The *Introscope 6.0 Upgrade Guide* is intended for users who are upgrading an Introscope deployment from an earlier version to Introscope 6, version 6.0. The Upgrade guide also describes new features introduced in Introscope version 6.0.

Introscope 6.0 Installation and Configuration Guide

The *Introscope 6.0 Installation and Configuration Guide* is intended for users who install and configure Introscope components. This guide includes information on:

- Installing and configuring the Introscope Agent, Enterprise Manager, and Workstation
- Introscope-enabling your Java Application
- Configuring Domains in your deployment
- Configuring users, permissions and authentication settings

Introscope 6.0 Workstation Guide

The *Introscope 6.0 Workstation Guide* is intended for users who view management application data and configure monitoring logic in the Introscope Workstation.

This guide includes information on:

- Viewing data displayed in the Explorer and Console

- Creating and editing Introscope Elements, including Alerts, Persistent Collections, and Metric Groupings
- Creating and editing Introscope Dashboards

Introscope 6.0 WebView Guide (this guide)

The *Introscope 6.0 WebView Guide* is intended for users who view management application data in WebView using a web browser.

Organization of the Introscope WebView User Guide

This book is organized into the following chapters:

[Chapter 1, Introscope and WebView Overview](#), introduces Introscope software, its features, and terms used in this book.

[Chapter 2, Viewing Introscope Data in WebView](#), describes using WebView to view data from your managed application.

Type Conventions Used in this Book

Convention	Is Used For
Courier font	File, directory and property names, computer output or code input examples
bold font	User interface menu items and screen prompts.
< <i>italic font</i> >	Variable names that will be replaced with actual items. For example: Replace < <i>filename</i> > with the name of an actual file.
blue text	A hyperlinked cross reference within an Introscope Guide (in the PDF file, when clicked, it jumps to the link destination)
purple italicized text	Cross reference between Introscope Guides (not hyperlinked)
Introscope directory	By default, Introscope is installed into a directory named <i>Introscope</i> . This book refers to the full pathname of this directory as <Introscope home>. If you install Introscope into a directory with a different name, use the full path of your installation directory in place of the directory <Introscope home> in procedures in this book.
◆	A diamond indicates a procedure consisting of a single step.
In UNIX	
/ (slash)	Separates directory and file names in UNIX path names as, <i>/Introscope6.0/examples/IntroscopeAgent.profile</i> .
# (pound sign)	UNIX prompt with root login, as: # cd /usr Do not type the # (pound sign).

Convention	Is Used For
: (colon)	In UNIX path names in path variables, separates file or directory names from each other, as: / <i><your-applicationpath>.isc/classes</i> :/ <i><your-applicationpath>.isc/lib/app.jar</i> : /Introscope6.0/lib/Agent.jar
_ (underscore)	Separates words in UNIX launcher application names.
In Windows	In most cases, the book shows examples using conventions for UNIX machines. If you are on a Windows machine, substitute the Windows conventions below for the shown UNIX conventions.
\ (backslash)	Separates directory and file names in Windows path names, as C:\Introscope\bin\pdh.dll
; (semicolon)	In Windows path names in path variables, separates file or directory names from each other, as: C:\<your-applicationpath>.isc\classes; \<your-applicationpath>.isc\lib\app.jar; \Introscope\lib\Agent.jar
(space)	Spaces separate words in Windows launcher application names.

Updates To This Guide

Consult the Wily Technology web site at <http://www.wilytech.com/support.html> for the most up to date product support information.



1 Introscope and WebView Overview

Introscope® is a system management application created to provide real-time Java Application performance management without requiring access or modification of the application's source code. Unlike development tools, Introscope is designed to scale with minimal performance impact. This allows you to monitor and manage your application performance in live production environments.

WebView makes it possible for Introscope users to view application performance data using a web browser. WebView offers the following significant benefits:

- Location independence – Introscope application performance data can be viewed from any computer, anywhere, running a compatible browser
- Broadens access within your company – more people in your organization can easily access application performance data without the need for installing special software on their desktop
- Enables collaboration – supports different groups within your company in working together to analyze and resolve application performance problems.
- Contributes to business efficiency – WebView contributes to your mission of achieving greater application uptime to support critical business processes

Information is provided in the following sections:

- [Introscope and WebView Overview](#)
- [WebView and Introscope Workstation Functionality](#)

Introscope and WebView Overview

Introscope-enabling an Application

Figure 1 is a simple conceptual view of how Introscope prepares a Java Application to be managed.

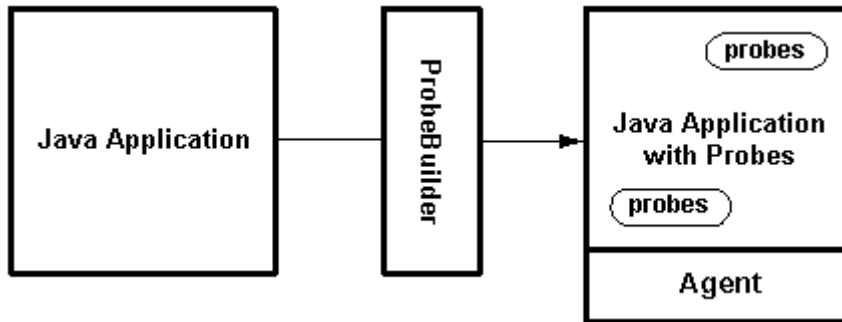


Figure 1. How Introscope prepares bytecode

Introscope, through the **ProbeBuilder**, adds Introscope **Probes** to a Java Application. Using AutoProbe automates this process, with the ProbeBuilder dynamically adding Probes to the Java Application when the application starts up.

The Probes measure specific pieces of information about an application without changing the application’s business logic. An Introscope **Agent** is installed on the same machine as the Introscope-enabled application. Once the Probes have been installed in the bytecode, the Java Application is referred to as an **Introscope-enabled** application. Once the Java Application with Probes is running, it is called a **managed application**.

The Managed Application and Introscope Components

Figure 2 is a simple conceptual view of Introscope components and how they cooperate and communicate with each other.

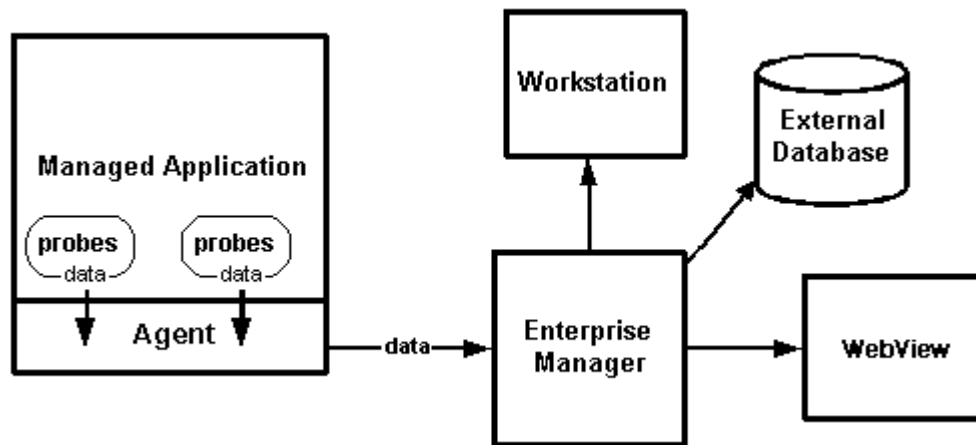


Figure 2. Introscope conceptual overview

As a managed application runs, Probes relay collected data to the Agent. The Agent then collects and summarizes the data and sends it to the **Enterprise Manager**.

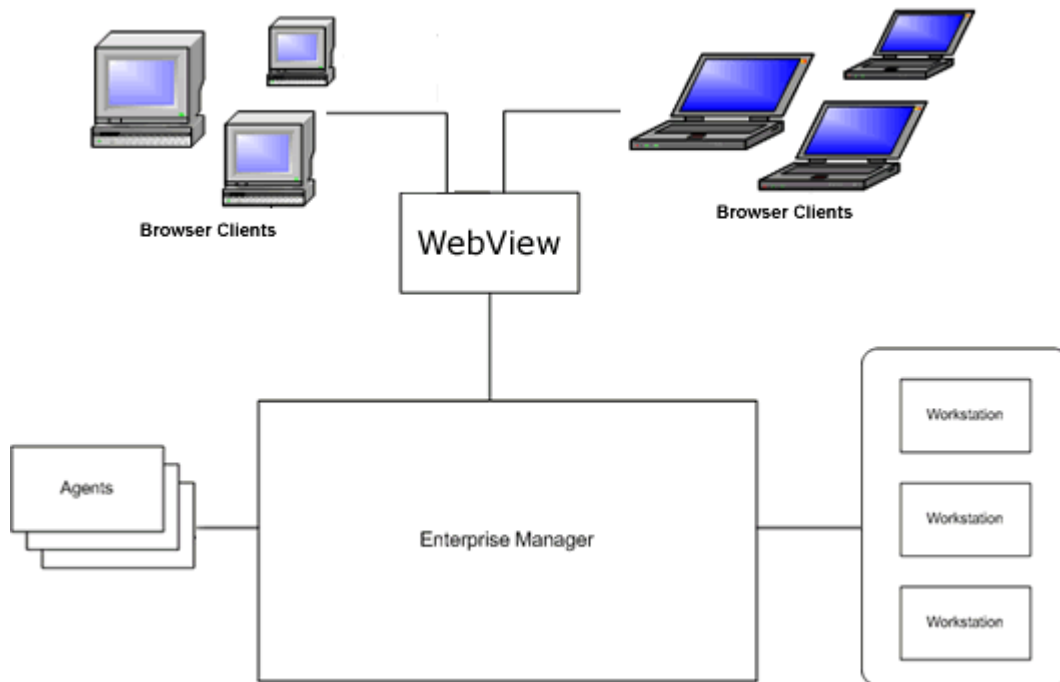
Data collected by the Enterprise Manager can be accessed through one or more **Workstations**. You can use the Workstation to view performance data, and configure the Enterprise Manager to perform such tasks as collecting information for later analysis, and creating Alerts.

As a managed application runs, Introscope Agents collect performance data in real time, and send the information to the Enterprise Manager. The Workstation allows you to configure the Enterprise Manager, organize Metrics, define actions based on their values, and display the information you choose in the most convenient format for you.

How WebView Fits Into Introscope Deployment

Introscope WebView is a browser-based alternative to the Workstation client application described above. As of Introscope 6.0, WebView is installed as part of the Introscope core package, and runs independently of an application server. After installing WebView, a standard web browser is all that is required to view Introscope data.

The following illustration shows how WebView fits into an Introscope deployment:



WebView is a view-only client. It implements a subset of the functions available in the Workstation. WebView allows a user to view performance data. However, WebView does not provide the advanced configuration and Alert capability provided by the Workstation. Because of this, WebView does not replace the Workstation, but rather complements it. In many cases, Introscope customers will elect to deploy both the Workstation and WebView in order to offer the broadest level of data access capabilities to meet various user needs.

The following table summarizes key interactions among the components in an Introscope environment:

ProbeBuilder	<ul style="list-style-type: none"> Refers to ProbeBuilder Directives files to define data to be collected Adds Probes to Java Application
Probes	<ul style="list-style-type: none"> Collects data defined by ProbeBuilder Directives files Sends collected data to Agent
Agent	<ul style="list-style-type: none"> Sends collected data to the Enterprise Manager
Enterprise Manager	<ul style="list-style-type: none"> Receives collected data from Agent
Workstation	<ul style="list-style-type: none"> Connects to the Enterprise Manager to view data Configures the Enterprise Manager
Database	<ul style="list-style-type: none"> Receives data from the Enterprise Manager
Introscope WebView	<ul style="list-style-type: none"> Connects to Enterprise Manager to view data through a web browser

WebView and Introscope Workstation Functionality

Both the Introscope Workstation and WebView provide a window to view Metric data reported by Introscope Agents. However, WebView provides a simplified “view-only” environment, while the Introscope Workstation provides a way to edit business logic constructs as well as view Metric data.

WebView and Workstation Functionality Comparison

The following table details the differences in functionality between WebView and the Introscope Workstation. While both WebView and Workstation allow you to view Metric data in the Explorer and Console Dashboards, only the Workstation allows you to create and edit Elements (Alerts, Metric Groups, etc.) and Dashboards.

TABLE 1. WebView and Workstation Functionality Comparison

Functionality	WebView	Workstation
View Explorer and Console in web browser	X	-
View Metric Data and Blame information in Explorer Tree	X	X
View pre-configured Dashboards	X	X
View Historical Data	X	X
Filter Dashboards to show only data from selected Agent	X	X
Create and Edit Dashboards	-	X
Change data viewer type in Explorer Preview Pane and make temporary viewer modifications	-	X
Receive Alert notifications	-	X

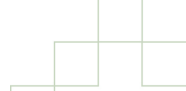


TABLE 1. WebView and Workstation Functionality Comparison

Create and edit Elements (Alerts, Persistent Collections, etc.) and view Element settings	-	X
Perform administrative functions (mount/unmount Agents, shut down Enterprise Manager, shut off Agents/Resources/Metrics)	-	X

Consult the [Introscope 6.0 Workstation Guide](#) for help in using the Introscope Workstation to perform Workstation-only tasks.



2 Viewing Introscope Data in WebView

This chapter describes how to use WebView to monitor an Introscope®-enabled application. WebView provides a browser-based alternative to the Introscope Workstation.

The WebView client allows you to view data collected by the Enterprise Manager. This chapter shows the basic navigational parts of WebView, the Console and the Explorer.

This chapter addresses users who will be viewing data using WebView.

Information is presented in the following sections:

- [Installing WebView](#)
- [Launching WebView](#)
- [WebView Interface](#)
- [Viewing Introscope Data in WebView Console](#)
- [Viewing Metric Data in the Explorer and Explorer Preview Pane](#)
- [WebView Data Viewers](#)
- [Viewing Historical Data in WebView](#)

Installing WebView

WebView is now installed from the Introscope core installer. See the [Introscope 6.0 Installation and Configuration Guide](#) for information on installing WebView.

Configuring Security and Permissions for Users

In Introscope 6.0, WebView authenticates users through the Enterprise Manager. Users can now be set up with access permissions to certain Domains, and task permissions within those domains. For more information on configuring domain and user permissions, see the chapter, [Configuring Introscope Security and Permissions](#) in the [Introscope 6.0 Installation and Configuration Guide](#).

Launching WebView

When Introscope WebView has been properly installed and configured, you will be able to log in and launch WebView.

Launching WebView

You must have the Introscope Enterprise Manager running before you can log into WebView. To launch WebView on Windows, use one of the following options:

- **Start** menu, **Introscope > Introscope WebView**
- run `Introscope WebView.exe`.

Logging Into WebView

To log into WebView:

1. Launch Internet Explorer 6.0 or higher on a Windows machine.
2. Use the URL your administrator has set up to launch the WebView application.

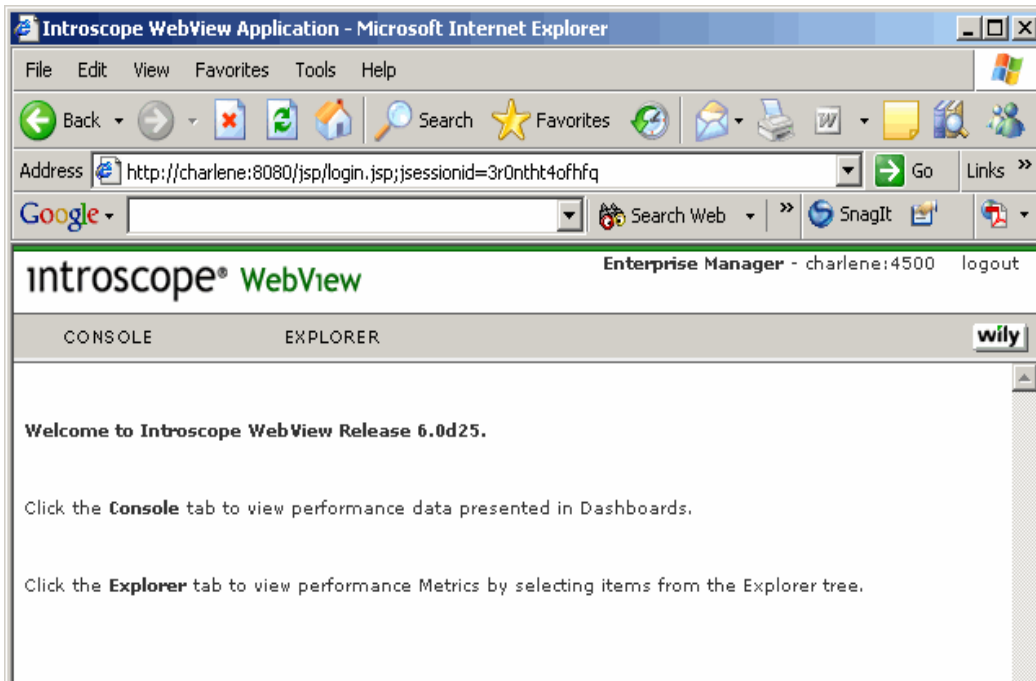
The Introscope WebView login screen appears.



3. Enter username and password and click **Log In**.

Note: Username and password are authenticated through the Enterprise Manager, so you will be able to use the same username and password for WebView as you normally use for logging into the Workstation.

If the username and password are valid, the Introscope Welcome Screen appears.



WebView Interface

WebView displays information through two windows:

- Console: displays data in Dashboards, which contain Data Viewers.
- Explorer: displays, in hierarchical form, all Agents, Domains and Metrics

Installing the Adobe SVG Plugin

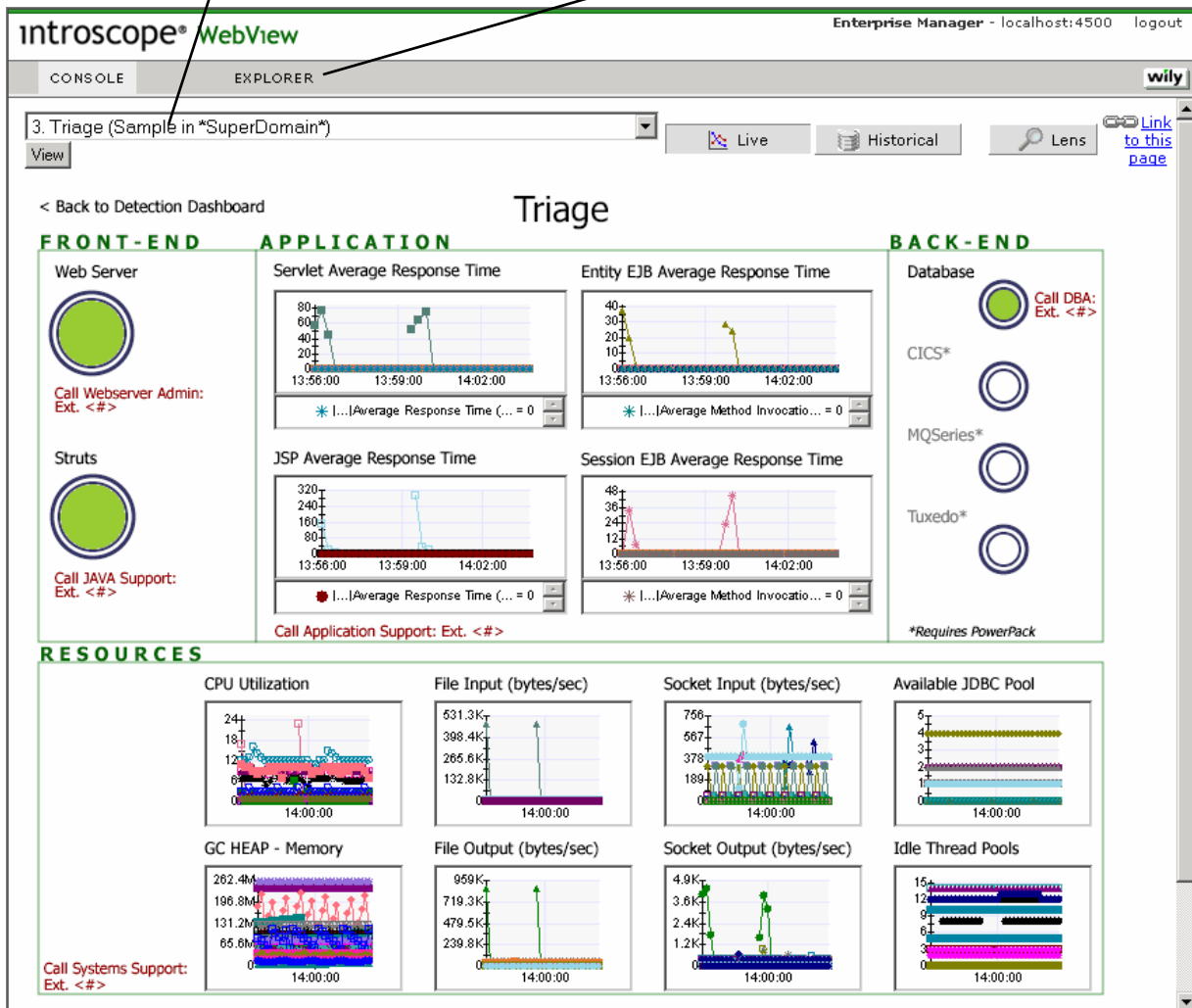
The first time you view the Console or Explorer windows, you will be prompted to install the Adobe SVG plugin. The Adobe SVG plugin is required to properly view Introscope Console and Explorer data in WebView.

Console

The Console in WebView displays any Dashboards available from the Enterprise Manager. WebView is logged into.

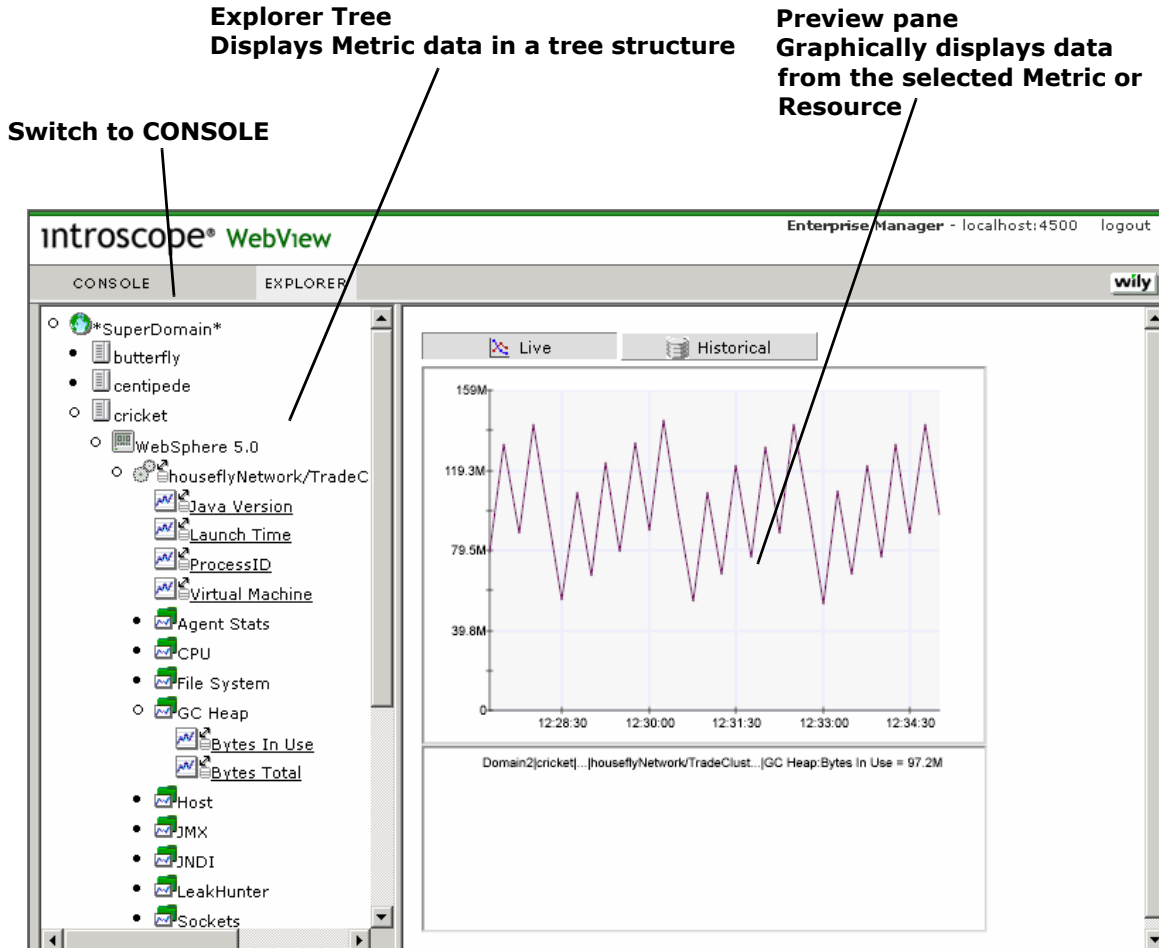
Note: You can view, but not edit, all information in the WebView Console Dashboards. Use the Introscope Workstation to create and edit Dashboards.

Dashboard selection pull-down list **Switch to EXPLORER**



Explorer

While the Console provides selected, arranged views of software performance through Dashboards, the Explorer displays, in hierarchical tree structure, data collected by Agents.



The Explorer is comprised of two areas:

- Explorer Tree

The left side of the Explorer window is a tree structure that provides information about each host and application managed by the Enterprise Manager to which WebView is connected. The Explorer tree displays Metrics from any connected Agents.
- Preview pane

The right side of the Explorer window is the Preview pane, which displays a view of data from the selected Metric or Resource.

Explorer Tree Contents

The Explorer tree in Introscope WebView displays Metrics organized by hosts. The contents of the Explorer tree will display differently depending on a user's permissions.

There are two possible nodes in the Explorer tree, SuperDomain and Domains.

SuperDomain Node

The SuperDomain node in the Explorer tree compiles all Agents and Metrics for all defined Domains.

Domains Node

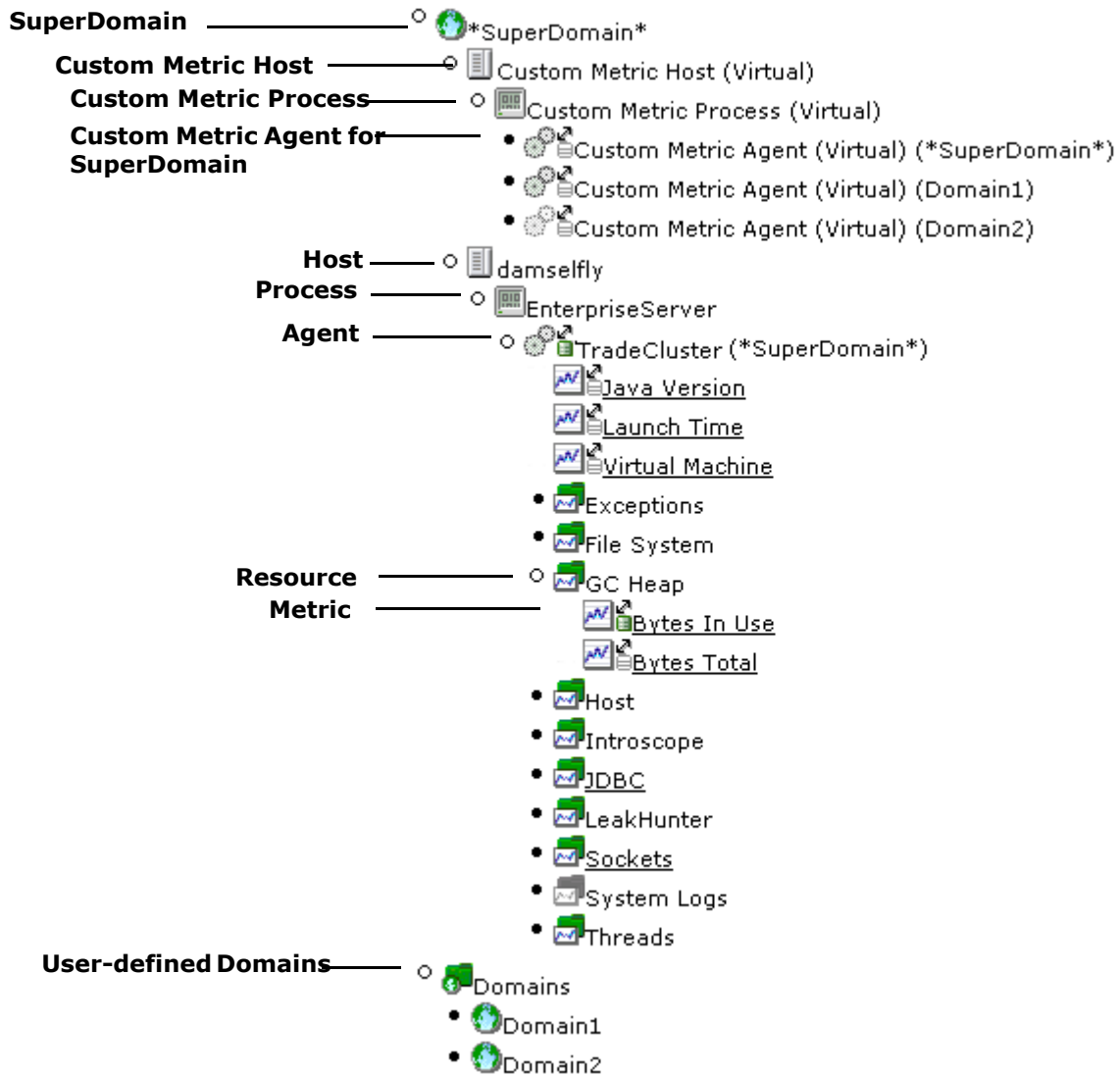
The Domain node sorts information into a Resource for each Domain, which contains:

- any Agents mapped to that Domain
- a Custom Metric Host for that Agent

Permissions Notes

- Users with SuperDomain permission (at least read permission) will see all Domains for that Enterprise Manager in the Explorer tree.
- Users with permissions for multiple Domains will see Domain information for those Domains in the Explorer tree.
- Users with permissions for only one Domain will not see Domain information in the Explorer tree, they will only see the "Metrics" folder

The following illustration shows how the Explorer tree in WebView expands.



Metrics in the Explorer Tree

The Explorer tree displays Metric data reported by Introscope Agents.








The Metric data is organized by:

- Host - the Host machine on which the Agent is running
- Process - the instance of the managed application running
- Agent - the reporting Agent
- Resource - standard J2EE components
- Metrics - Metric data generated by the ProbeBuilder Directives files (.pbd)

The Metrics that automatically appear in the Explorer tree are generated by the default ProbeBuilder Directives files (.pbds), and are dependent on the activity of the managed application. You can specify additional Metric information to be generated by creating Custom Tracers (see the chapter, *ProbeBuilder Directives*, in the *Introscope 6.0 Installation and Configuration Guide*).

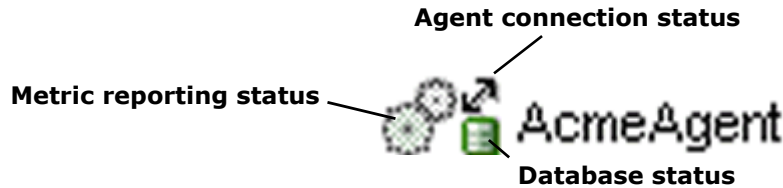
Metrics first appear in the tree when data from that Metric is first reported by the Agent. After that, the Metric will be visible in the tree, even if new data is not being received from the Agent for that Metric.

The following table describes the items in the SuperDomain or Domains folder in the Explorer tree.

Icon	Tree Item	Description
	SuperDomain	Domain that includes all defined Domains, as well as Agents that are not assigned to other Domains. Only visible to users with SuperDomain access.
	Domains	Resource that contains user-defined Domains. Only visible to users with access to multiple Domains.
	Host name Custom Metric Host	Server on which your monitored application is running. In addition to real hosts, the Workstation creates a virtual host Custom Metric Host to contain Metrics generated by Calculators.
	Process name Custom Metric Process	Each instance of the managed Java Application that is running. Process names appear here as specified in the application profile. The virtual Custom Metric Host contains a virtual process, Custom Metric Process, to contain Metrics generated by Calculators.
	Agent Name Custom Metric Agent	Name of Agent specified by user (v4.x), or a randomly assigned number (old Agents). The Custom virtual Metric Process contains a virtual Agent, Custom Metric Agent, to contain Metrics generated by Calculators.
	Resource	Resources group Metrics. Resources can also contain sub-resources that further group Metrics.
	Metric	Measurement of a specific application activity.

Agent Icon Appearance In Explorer Tree

The Agent icon in the Explorer tree is composed of three small icons which display current Agent status information. The following illustration shows the information each icon conveys:



If the icon is colored in for any of the following parts, it means:

- Metric Reporting icon (gear): one or more Metrics under the Agent are reporting
- Agent connection icon (double-ended arrow): Agent is connected to the Enterprise Manager
- Database icon (cylinder): the following things are occurring:
 - Metrics are configured to send data to the database
 - those Metrics are currently reporting
 - database is currently available to the Agent

Note: Database information (or Persistent Collections) cannot be defined or edited in WebView.

Agent, Resource and Metric Appearance in the Explorer Tree

The Explorer tree in WebView can show if an Agent, Resource or Metric is shut off or not reporting (it will be grayed out). However, it cannot show the reason why, because the Agent/Resource/Metric settings cannot be viewed in WebView. Use the Introscope Workstation to diagnose issues in Metric, Resource or Agent reporting.

Logging Out of WebView

To log out of WebView:

- ◆ click the **Log Out** link in the upper-right corner of the screen

Viewing Introscope Data in WebView Console

This section describes how to open a WebView Console and view Introscope data in Dashboards.

Opening a Console Window

To open a Console window:

- ◆ click the Console tab at the top of the screen

Opening Multiple Console Windows

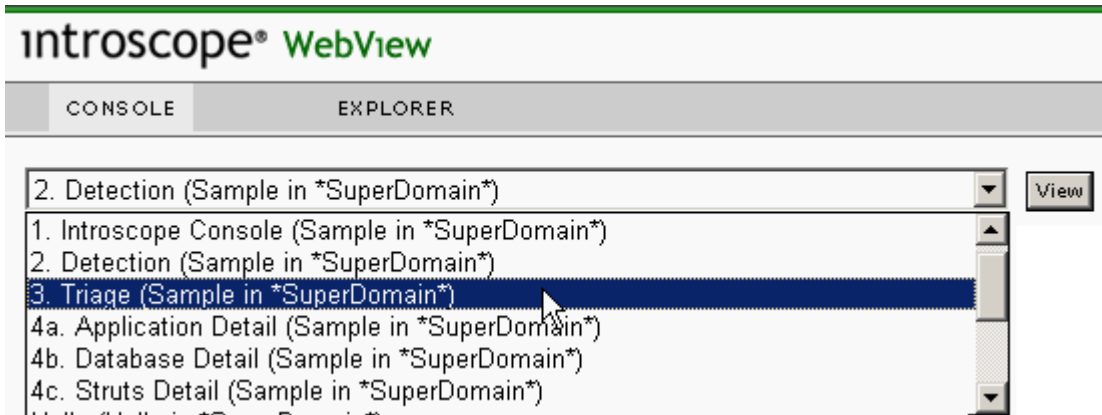
To open multiple Console windows:

- ◆ right-click the Console tab and select **Open Link in New Window** from the menu

Accessing Dashboards

To access Dashboards in WebView:

1. With an Introscope Console open, use the pull-down list to select a Dashboard.



2. Click **View**.
3. The selected Dashboard is displayed.

Console Lens

Users with multiple Agents often want to isolate and view data on a per-Agent basis, but this is difficult to do without creating multiple copies of Dashboards, each one designed to show data from a different Agent. The Console Lens feature solves this problem by allowing you to filter Dashboard data by Agent on-the-fly. This means that when new Agents connect, you can immediately apply the Console Lens to filter the data on the Dashboard.

When a filter is applied in the Console, it persists even when you view other Dashboards, switch back and forth from Explorer, or switch to Historical mode. The Console Lens filtering will persist until you perform one of the following actions:

- use the **Clear** command
- close the WebView browser session window
- log out of WebView

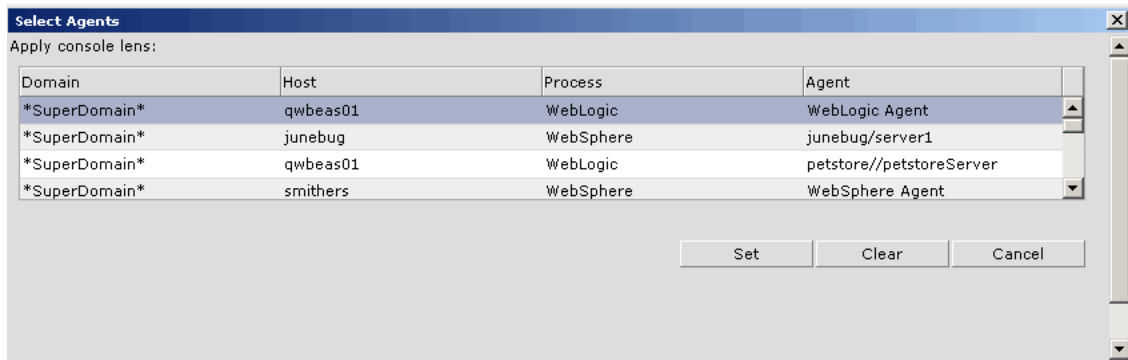
Some limitations of the Console Lens:

- graphs powered by Calculators don't work
- hyperlinks from data viewers to the Explorer don't work
- the Console Lens is applied on a per-window basis (if you open a new WebView window, it will not be lensed)

Applying Console Lens

To apply the Console Lens:

1. Click the **Lens** button.



2. Select a single Agent, or select multiple Agents (click and drag, or ctrl+click) to filter on.
3. Click **Set**.

Clearing Console Lens

To clear the Console Lens:

- click **Lens** button, then click **Clear**.

Data will display in the Dashboards as originally configured.

Bookmarking Dashboards

If there are certain Dashboards you use frequently, you can bookmark them for quick access.

To bookmark a Dashboard:

1. Access the Dashboard you'd like to bookmark.
2. Click **Link to this page**.
3. From the browser menu, select **Favorites > Add To Favorites**.
4. Accept the suggested name for the Dashboard (or enter a new one).
5. Click **OK**.

The Dashboard will be available from the **Favorites** menu.

Accessing a Dashboard Through a Bookmark

To access a Dashboard saved as a Favorite:

- ◆ Pull down the **Favorites** menu, and select the bookmark for the desired Dashboard.

The Dashboard will appear in a separate window.

Note: If you are not logged into WebView, you will be forwarded to the login screen.

Viewing Graph Details

Graph Details lets you identify Metrics in a data viewer in the Console or Explorer.

Note: You cannot view details for a Traffic Light viewer.

To view graph details:

1. In the Console window, hover over the data viewer, then right-click and select **Details** from the context menu. The **Viewer Detail** window appears.

Full metric name	Min	Average	Max	Last
SuperDomain smithers WebSphere WebSphere Agent Servlets:Average Response Tim...	0.00	0.00	0.00	0.00
SuperDomain/Domain2 qaservf31 WebLogic 7.0 sampleportalDomain//sampleportalS...	0.00	0.00	0.00	0.00
SuperDomain/Domain1 marge WebSphere 4.0 WebSphere Agent Servlets:Average Re...	0.00	0.00	0.00	0.00
SuperDomain qwbeas01 WebLogic petstore//petstoreServer Servlets:Average Respons...	0.00	0.00	0.00	0.00
SuperDomain/Domain3 TERMITE WebSphere 5.1 centipede-cell/TradeClusterServer3 S...	0.00	0.00	0.00	0.00
SuperDomain junebug WebSphere junebug/server1 Servlets:Average Response Time ...	0.00	0.00	0.00	0.00
SuperDomain/Domain3 screworm WebSphere 5.1 centipede-cell/TradeClusterServer2...	0.00	0.00	0.00	0.00
SuperDomain/Domain2 butterfly WebSphere 5.0 houseflyNetwork/TradeClusterServer2...	0.00	0.00	0.00	0.00
SuperDomain/Domain4 QWIBMS02 WebSphere 6.0 QWIBMS02Node01Cell/server1 Se...	0.00	0.00	0.00	0.00

2. The fully-qualified names of all the Metrics displayed in the graph are shown, along with the minimum, maximum, average, and last values of those Metrics.

Note: If the Metric name is truncated, you can see the complete Metric name by widening the Metric name column, or hovering over the Metric name (the fully-qualified Metric appears in a pop-up box).

Accessing Hyperlinks On Dashboards

Introscope provides a quick and easy way to view related items, through **hyperlinks**. Hyperlinks in Introscope WebView allow you to jump quickly from one area to another. Links in Webview can link to other Dashboards, or to web pages.

A user with Dashboard edit permission to the Introscope Workstation can set up links that can be viewed in WebView Dashboards. For information on creating and editing custom links, see the chapter, *Creating and Editing Introscope Dashboards*, in the *Introscope 6.0 Workstation Guide*.

There are two ways to access links for a selected Dashboard object in the Console:

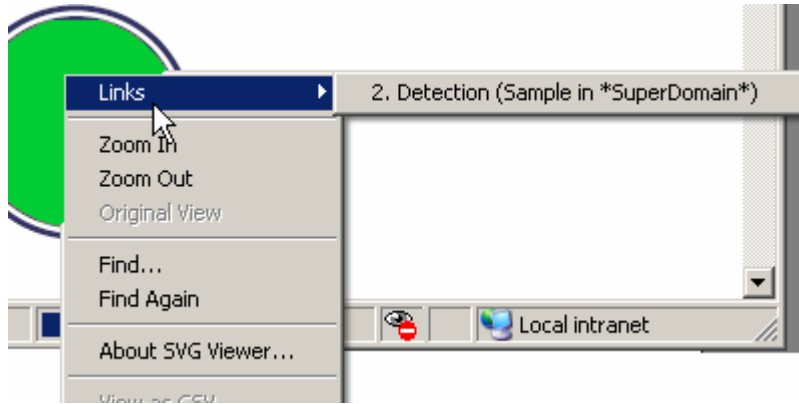
- through the **Links** menu
- clicking the default link

Accessing Hyperlinks From Links Menu

Any available links for a Dashboard item are shown on a **Links** menu.

To access Links menu links:

- ◆ right-click on the Dashboard object, select **Links** submenu, then select link



If there are no links available for a selected object, the Links menu will be disabled (grayed out).

Accessing Custom Default Links

Default links are visible when you mouse over a Dashboard object.

- For text blocks:
 - If the text block has a default link defined for it, an underline will appear when you hover over it, and the cursor will change to a “hand.”
- For other Dashboard objects:
 - If the object has a default link defined, the mouse pointer will change to a “hand” (like you see in a web browser when you hover over a link).

To use a default link:

- ◆ When you discover a Dashboard object with a default link, click on the object.

JAVA APPLICATION



For more detail, double-click on application

Viewing Metric Data in the Explorer and Explorer Preview Pane

While the Console provides selected, arranged views of software performance, the Explorer displays, in hierarchical tree structure, data collected by Agents.

The Explorer tree is refreshed every 15 seconds to show current Agent and Metric data.

Opening an Explorer Window

To launch an Explorer window:

- ◆ click the Explorer tab at the top of the screen

Opening Multiple Explorer Windows

To open multiple Explorer windows:

- ◆ right-click the Explorer tab and select **Open Link in New Window** from the menu

Explorer Navigation

Changing the Proportions of the Explorer Panes

- ◆ To change the width of the Explorer tree pane, drag the boundary.

Expanding and Collapsing the Tree

If you see a black filled dot to the left of a tree node, it means there is a collapsed level inside it.

- ◆ To expand a node, click on the filled black dot

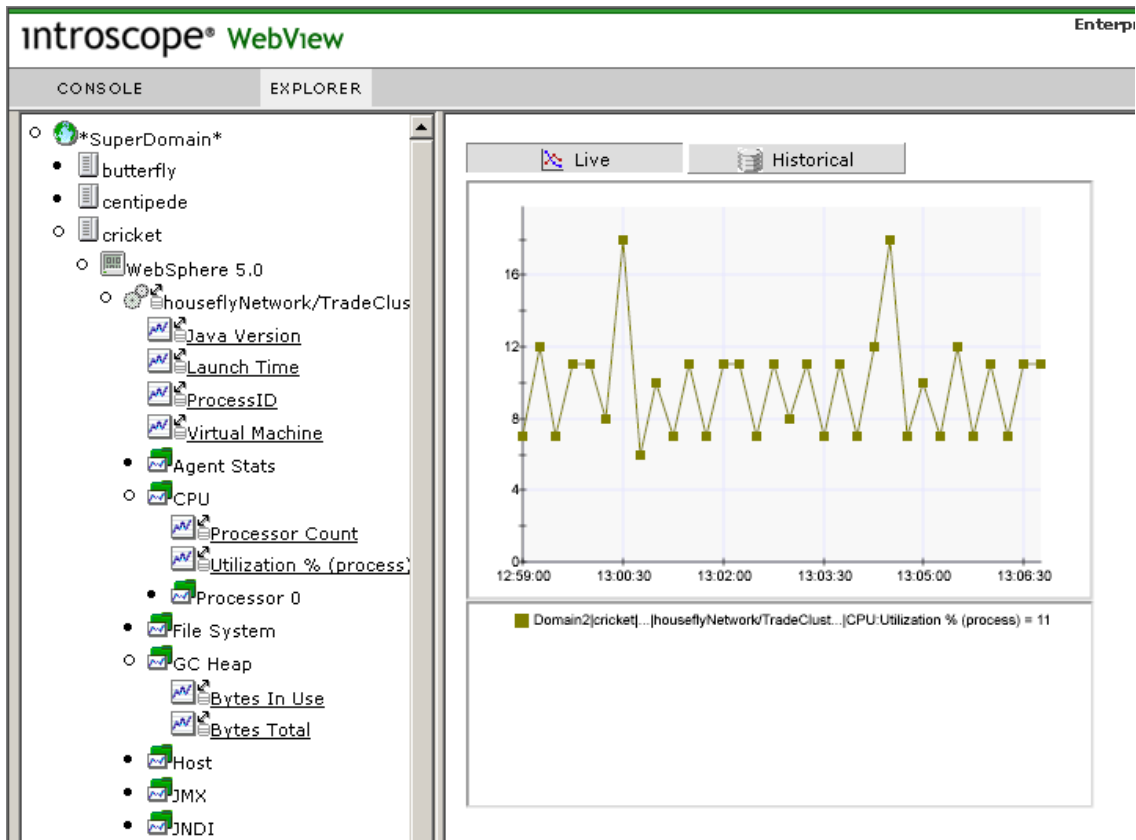


- ◆ To collapse a node, click on the open dot



Viewing Metric Data in Preview Pane

In the Explorer, when you select any Metric in the tree, its information is shown in the Explorer Preview pane, as in the screenshot below.



- ◆ Click any Metric link to see its data in the Preview pane.

Viewing Automatic Filtered Views in the Preview Pane

Certain Resources in the Explorer, when selected, will automatically show Top Ten Filtered Views of Metrics that match the Metric Grouping associated with the Resource. These Metrics are displayed in a bar chart viewer type in the Explorer Preview pane. Some Resources that automatically show Top Ten Matching Metrics are Servlets, JSP, EJBs and JDBC.

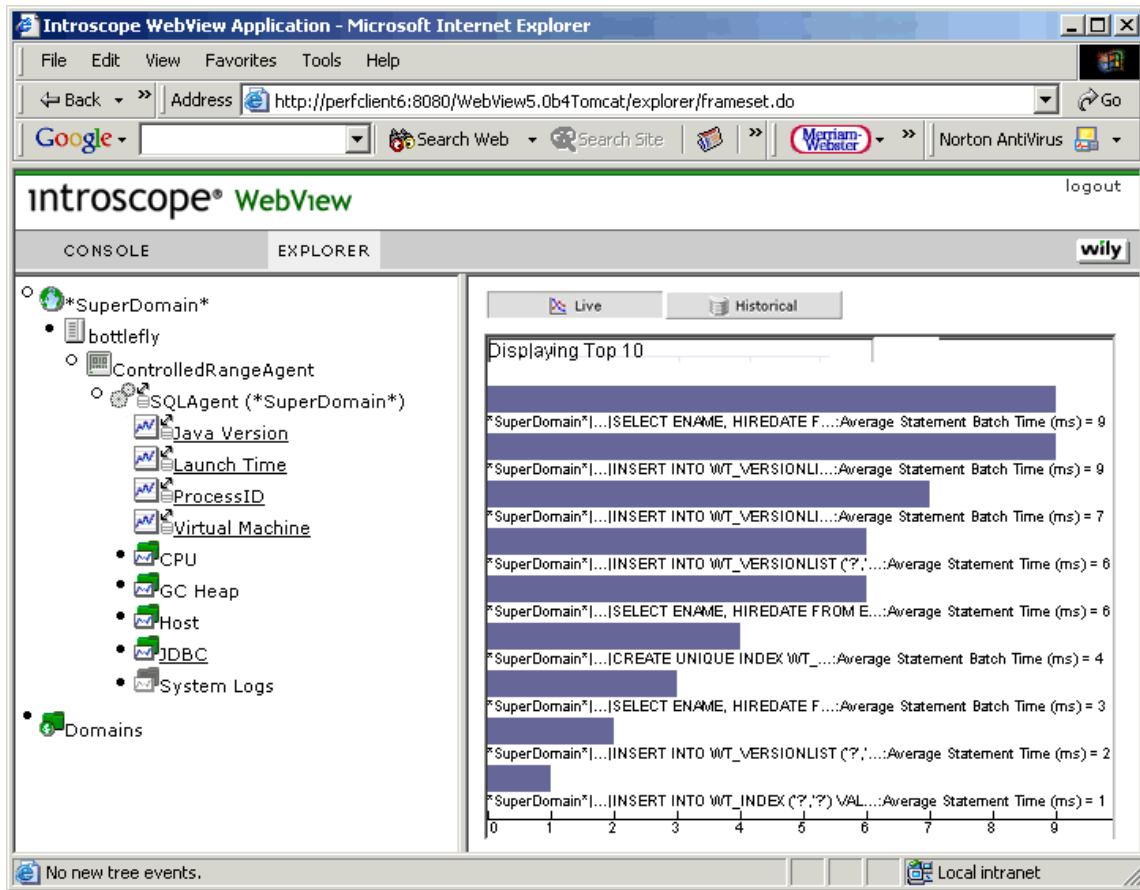
You can also view the response times of the top 10 called components of a selected Servlet, EJB, or JSP.

Viewing Automatic Filtered Views in Explorer

The Explorer Preview pane will show the automatic Top Ten matching Metrics for the selected Resource.

- ◆ To view automatic top ten Metrics for Resources, click on a Resource that is a link (underlined).

The top ten matches will display in the Explorer Preview pane in the Bar Chart viewer type.



Note: Occasionally you may see less than ten bars in the bar chart (at times there may only be one). This will occur if there are less than ten monitored components under that Resource at that time.

Viewing Graph Details

Graph Details lets you identify Metrics in a data viewer in the Console or Explorer.

Note: You cannot view details for a Traffic Light viewer.

1. In the Preview pane, hover over the data viewer. Right-click, and select **Details** from the context menu.

- The **Viewer Detail** window appears.

Full metric name	Min	Average	Max	Last
SuperDomain smithers WebSphere WebSphere Agent Servlets:Average Response Tim...	0.00	0.00	0.00	0.00
SuperDomain/Domain2 qaservf31 WebLogic 7.0 sampleportalDomain//sampleportalS...	0.00	0.00	0.00	0.00
SuperDomain/Domain1 marge WebSphere 4.0 WebSphere Agent Servlets:Average Re...	0.00	0.00	0.00	0.00
SuperDomain qwbeas01 WebLogic petstore//petstoreServer Servlets:Average Respons...	0.00	0.00	0.00	0.00
SuperDomain/Domain3 TERMITE WebSphere 5.1 centipede-cell/TradeClusterServer3 S...	0.00	0.00	0.00	0.00
SuperDomain junebug WebSphere junebug/server1 Servlets:Average Response Time ...	0.00	0.00	0.00	0.00
SuperDomain/Domain3 screwworm WebSphere 5.1 centipede-cell/TradeClusterServer2...	0.00	0.00	0.00	0.00
SuperDomain/Domain2 butterfly WebSphere 5.0 houseflyNetwork/TradeClusterServer2...	0.00	0.00	0.00	0.00
SuperDomain/Domain4 QWIBMS02 WebSphere 6.0 QWIBMS02Node01Cell/server1 Se...	0.00	0.00	0.00	0.00

- The fully-qualified names of all the Metrics displayed in the graph are shown, along with the minimum, maximum, average, and last values of those Metrics.

Note: If the Metric name is truncated, you can see the complete Metric name by widening the Metric name column, or hovering over the Metric name (the fully-qualified Metric appears in a pop-up box).

WebView Data Viewers

Data Viewers are objects in the Explorer Preview pane or in a Dashboard in the Console that display data from a managed application in a visual form. Data is displayed in a Data Viewer type that corresponds to the type of Data.

Data Viewers in WebView can display data from a Metric, or a Resource.

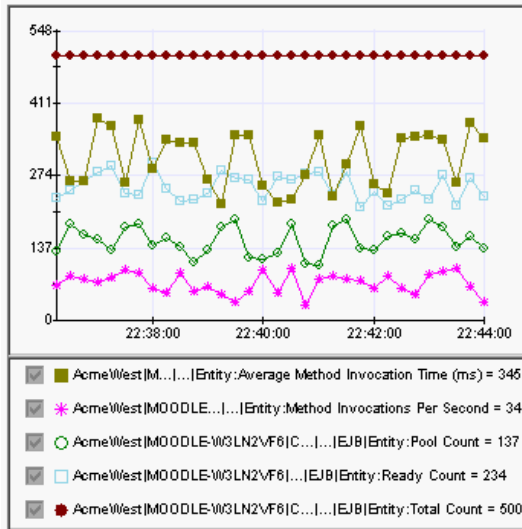
Data Viewer Types

Depending on the type of Metric or Element, Introscope can display the data in a Data Viewer with the following Data Viewer display types.

Note: Some of these Data Viewers will only be seen in a Console Dashboard.

TABLE 2. Data Viewer Types

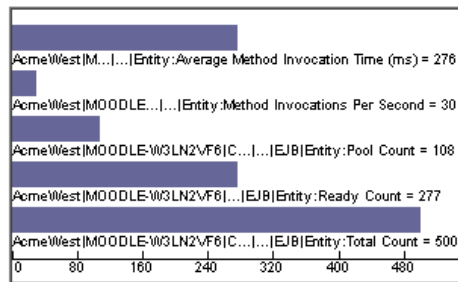
Graph



Graphs plot values over time. In real-time views, the Graph dynamically displays the most recent time period that fits in the Graph.

If the Graph displays an Alert, caution and danger thresholds appear as yellow and red lines, respectively.

Bar Chart



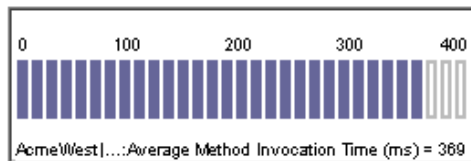
Bar Charts display current data values as horizontal bars.

The Bar Chart is the default view for Top N Filtered Views.

If a bar chart is showing an Alert, the bars will be either green, yellow or red to correspond to Alert status.

The Bar Chart is available for live data viewing only.

Graphic Equalizer

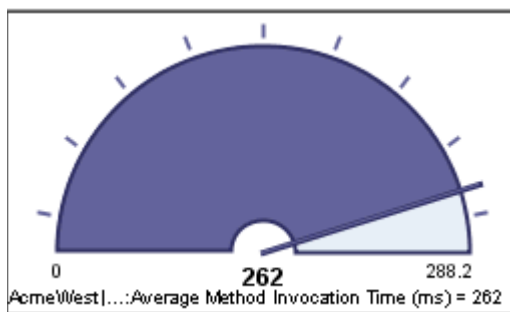


Graphic equalizers show the current value of the data, as well as recent high levels.

A Graphic Equalizer can only display data for a single Metric.

Note: The Graphic Equalizer viewer type will only be seen in a WebView Console Dashboard.

Dial Meter



Dial meters depict current data values as positions on a half-round dial.

Note: The dial meter viewer type will only be seen in a WebView Console Dashboard.

String Viewer

```
AcmeWest|...Average Method Invocation Time (ms) = 222
AcmeWest|...|Entity:Method Invocations Per Second = 52
AcmeWest|MOODLE-W3LN2...|...|Entity:Pool Count = 128
AcmeWest|MOODLE-W3LN2...|...|Entity:Ready Count = 272
AcmeWest|MOODLE-W3LN2...|...|Entity:Total Count = 500
```

String Viewers can display a value as a line of text. String Viewers allow some values to be displayed in a relatively small space. You can also use a String Viewer for simple values that do not change, such as **Launch Time** or **IP Address**.

Text Viewer

```
Line Wrap
ava.lang.Error: Illegal lock usage
    at EDU.oswego.cs.dl.util.concurrent.ReentrantLock.release
    at com.wily.introscope.server.enterprise.entity.database
    at com.wily.introscope.server.enterprise.entity.database
    at com.wily.introscope.server.enterprise.entity.database
    at EDU.oswego.cs.dl.util.concurrent.PooledExecutor$Worker
    at java.lang.Thread.run(Thread.java:534)
```

Text viewers display the text for data where new values are added to old ones; for example, a system or exception log.

Traffic Light



A Traffic light displays the current status of an Alert by lighting up one of three colored circles, corresponding to Alert conditions defined in the Alert:

- Green = status normal
- Yellow = caution threshold was crossed
- Red = danger threshold was crossed

If the Alert has no data, no color is shown.

A Traffic light can also be shown as a single light.

Note: Traffic lights will only be seen in a WebView Console Dashboard.

Exporting Options From Data Viewer

In WebView, there are several options for exporting data from a data viewer, whether in the Explorer or the Console:

- Export data to CSV file
- Copy to clipboard as image

Exporting Data to CSV File

Introscope allows you to take a “snapshot” of current data in a Data Viewer, and export it to a comma separated values (.csv) file. You might want to analyze this data in an external program. You can export data from all Data Viewer types except the traffic light.

To export data from a Data Viewer:

1. Right-click the Data Viewer, and select **View as CSV file** from the context menu.
2. From the dialog box, select an option:

- Click the **Open** button, to view the contents of the .csv file.
Note: Excel will launch if it is the default program for .csv files.
- click **Save**, pick a name and location for the .csv file and click **Save**.

Viewing Historical Data in WebView

As you monitor your managed application, real-time data displays change continuously and show only the most recent data.

You can view historical data by switching to Historical mode. Historical data is provided by SmartStor™, which records all application performance data (Introscope Metrics) at all times while the Enterprise Manager is running, without the need for an external database. For more information on SmartStor™, see the section, [Configuring SmartStor Data Storage](#) in the chapter, [Configuring and Running the Introscope Enterprise Manager](#), in the [Introscope 6.0 Installation and Configuration Guide](#).

You switch between Live and Historical Mode by using the Live and Historical buttons, found on both the Explorer and Console windows.

Historical Mode persists for the entire WebView session. Thus, if you switch to Historical View in the Explorer, and then switch to the Console, the Console will also display all data in Historical View.

Switching between Live and Historical Mode

To switch between Live and Historical Mode in WebView:

1. When you first launch WebView, the displays show Live data. To switch to viewing historical data, click the Historical button at the top of the window (whether in Explorer or Console). The **Historical Range** dialog appears:
2. Select the desired historical time range to view:
 - Last 20 minutes
 - Last hour
 - Last 24 hours
 - Custom range - you can either enter click the calendar to pick a date, or enter date and time information in the appropriate fields.
3. Click **Update**.
 - If viewing the Console, all data viewers in the Dashboard will display the specified range.
 - if viewing the Explorer, any Metric you click on will display data from the specified range.

Historical Mode Viewer Display Notes

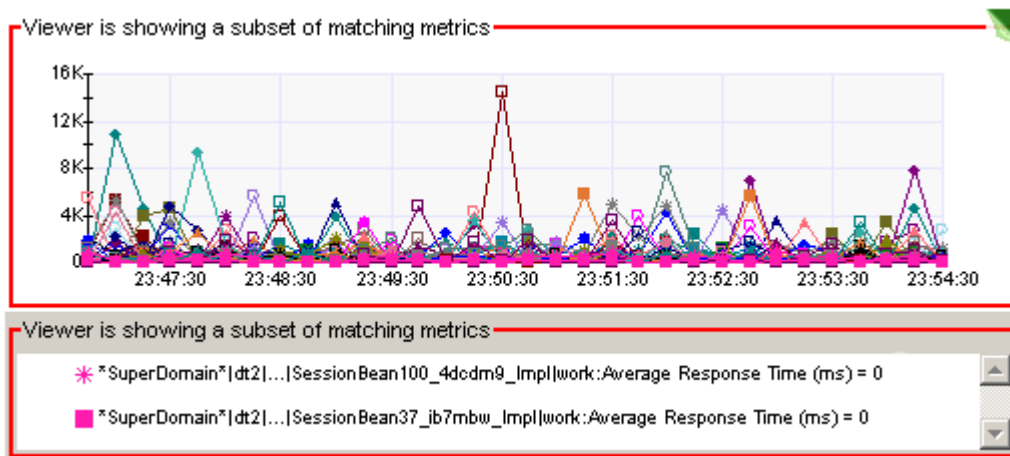
Please note the following historical Mode behaviors:

- If any range other than custom is chosen, the historical viewer will display historical from the minute it was selected, to the earliest period.

- If you switch to another Dashboard, the range will be shown, starting from the time the Dashboard was selected. For example, if you are displaying 20 minutes of historical data that started at 5:05 p.m., on one Dashboard, and you switch to another Dashboard at 5:10 p.m., the Dashboard will show 20 minutes of historical data from 20 minutes before 5:10 p.m.
- If you start a new WebView session, the data shown will be in Live Mode.
- If you are viewing a Dashboard that contains a pre-configured historical viewer (as defined in the Dashboard Editor in the Workstation), while in Live view, the viewer will display the pre-configured historical data. However, if you switch to Historical Mode, the historical range chosen for the window will override that of the pre-configured viewer. If you go back to Live Mode, the pre-configured range will again be displayed.
- Top N data viewers will change to a graph in historical mode and will not display Top N information
- certain types of data viewers will not show historical data (traffic lights, string text, and live text)
- You cannot switch between Live and Historical modes for individual data viewers in WebView (but you can in the Workstation).

Historical Viewer Data Point Display Limit

To prevent excessive overhead, the number of data points that can be displayed in a historical data viewer is limited to 25,000. If there are more than 25,000 data points that match the requested historical range, the data viewer will be bounded by a red box, with the message, "viewer is showing a subset of matching Metrics" as shown in the following screenshot.





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