Monitor User's Guide

VERSION 7.1.08

jade™

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Before You Begin

The *JADE Monitor User's Guide* is intended as the main source of information when you are monitoring and examining your JADE environment.

Who Should Read this Guide

The main audience for the *JADE Monitor User's Guide* is expected to be system administrators and application developers.

What's Included in this Guide

The *JADE Monitor User's Guide* has two chapters.

Chapter 1	Covers initiating and setting up the JADE Monitor, including running the JADE Monitor as a background process
Chapter 2	Covers using the JADE Monitor for system instrumentation and diagnosis

Related Documentation

Other documents that are referred to in this guide, or that may be helpful, are listed in the following table, with an indication of the JADE operation or tasks to which they relate.

Title	Related to…
JADE Database Administration Guide	Administering a JADE database
JADE Development Environment User's Guide	Using the JADE development environment to development JADE applications
JADE Initialization File Reference	Maintaining JADE initialization file parameter values
JADE Installation and Configuration Guide	Installing and configuring JADE
JADE Object Manager Guide	JADE Object Manager administration, including sign-on security, implementing system instrumentation and diagnosis methods, and node sampling
JADE Report Writer User's Guide	Using the JADE Report Writer to develop reports for your JADE applications
JADE Runtime Application Guide	Administering JADE deployed runtime applications
JADE Thin Client Guide	Administering JADE thin client environments
JADE Web Application Guide	Implementing, monitoring, and configuring Web applications

Conventions

The *JADE Monitor User's Guide* uses consistent typographic conventions throughout.

Convention	Description
Arrow bullet (❯❯)	Step-by-step procedures. You can complete procedural instructions by using either the mouse or the keyboard.
Bold	Items that must be typed exactly as shown. For example, if instructed to type **foreach**, type all the bold characters exactly as they are printed. File, class, primitive type, method, and property names, menu commands, and dialog controls are also shown in bold type, as well as literal values stored, tested for, and sent by JADE instructions.
Italic	Parameter values or placeholders for information that must be provided; for example, if instructed to enter *class-name*, type the actual name of the class instead of the word or words shown in italic type. Italic type also signals a new term. An explanation accompanies the italicized type. Document titles and status and error messages are also shown in italic type.
Blue text	Enables you to click anywhere on the cross-reference text (the cursor symbol changes from an open hand to a hand with the index finger extended) to take you straight to that topic. For example, click on the "Forcing Off a User from JADE" cross-reference to display that topic.
Bracket symbols ([ ])	Indicate optional items.
Vertical bar (|)	Separates alternative items.
`Monospaced font`	Syntax, code examples, and error and status message text.
ALL CAPITALS	Directory names, commands, and acronyms.
SMALL CAPITALS	Keyboard keys.

Key combinations and key sequences appear as follows.

Convention	Description
KEY1+KEY2	Press and hold down the first key and then press the second key. For example, "press SHIFT+F2" means to press and hold down the SHIFT key and press the F2 key. Then release both keys.
KEY1,KEY2	Press and release the first key, then press and release the second key. For example, "press ALT+F,X" means to hold down the ALT key, press the F key, and then release both keys before pressing and releasing the X key.

Terminology

In this document, the term Microsoft *Windows* refers to Windows 10, Windows 8, Windows 7, Windows Server 2012, Windows Server 2008, Windows Vista, or Windows Mobile. When there are differences between the versions of Microsoft Windows, the specific version of Microsoft Windows is stated.

With the exception of the **jade.exe** program, when referring to program executables in this document, the .**exe** file suffix is omitted; for example, **jadclient** refers to **jadclient.exe**. Similarly, the .**dll** (Dynamic Link Library) suffix is omitted. For example, **jomos** refers to **jomos.dll**.

Chapter 1 Initiating and Setting Up the JADE Monitor

This chapter covers the following topics.

- Overview
  - Log File Location
- Initiating the JADE Monitor
  - Running the JADE Monitor as a Background Process
  - Accessing the JADE Monitor
  - Calling the JADE Monitor from a Web Service Consumer
- Structure of the JADE Monitor Window
  - Using the Navigator Pane
- Setting Up the JADE Monitor

Overview

The JADE Monitor provides systems analysis and diagnostic tools that enable you to:

- Enable and disable the capture of data
- Log captured data to file for subsequent replay in another JADE Monitor session
- Extract class number cross-reference for subsequent replay in another JADE Monitor session
- Capture ad hoc data to a Comma-Separated Values (CSV) file
- Specify a periodic sampling interval
- Specify which performance data items are to be periodically sampled
- Perform ad hoc sampling of performance data items as a group
- Sort displayed data
- Print displayed data as it is currently displayed to the user
- Load and replay historical data
- Search for a specific user (for example, so that you can sign him or her off the application)
- Dynamically turn specific statistics gathering off and on
- Quickly navigate to any displayed information; for example, a specific user
- Obtain a range of information, including:
  - Node statistics counters and analysis
  - Behavior analysis figures (for example, the most-contended locks)
  - Lock conflict analysis

- Interactive method instrumentation
- Information about the viewed data via an in-built knowledge base of information, or add your own information (for example, notes or tips) to the in-built knowledge base

This functionality enables you to monitor how well your system is running, to easily identify aspects that have the most impact on performance, and to quickly identify the likely cause of a problem in an emergency situation.

The diagnostic information is available in a number of levels of detail, ranging from a general overview down to detailed component analysis.

Note In this chapter, the unqualified term *Monitor* refers to a JADE client session running the JADE Monitor application or to a browser accessing monitor functionality via Web services.

For details about running the JADE Web Application Monitor, see Chapter 2, "Monitoring Your Web Sessions", in the *JADE Web Application Guide*. For details about the Application Programming Interface (API) framework whose methods can be incorporated into JADE applications to examine a JADE system, nodes, or processes, see Chapter 4, "JADE System Instrumentation and Diagnosis", of the *JADE Object Manager Guide*. For details about security, see "JADE Monitor Security", in Chapter 2 of the *JADE Object Manager Guide*.

Log File Location

When the JADE Monitor starts up, the JADE initialization file on the presentation client is read. If entries are absent, the appropriate directory parameter values are derived and the parameter values are created in the JADE initialization file on the presentation client. For example, the log directory on the presentation client is established as follows.

1. If the **LogDirectory** parameter, which was obsolete from JADE 6.3, is located in the [JadeMonitor] section of the JADE initialization file, it is replaced by the **DefaultLogDirectory** parameter and its value is used.
2. If the **DefaultLogDirectory** parameter is located in the [JadeMonitor] section, its value is used.
3. If the **LogDirectory** parameter is located in the [JadeLog] section of the JADE initialization file, it is written to the **DefaultLogDirectory** parameter in the [JadeMonitor] section and its value is used.
4. If none of the previous steps in this instruction are performed, the ***home-directory*\logs** value is written to the **DefaultLogDirectory** parameter in the [JadeMonitor] section and its value is used.

   If you specify a relative directory name, the directory is assumed to be relative to the JADE HOME directory. For example, if your installation directory is **Jade\bin** (that is, your JADE HOME directory is **Jade**) and you specify **DefaultLogDirectory=MonitorLogs**, the full directory path is **Jade\MonitorLogs**.

If you are running on a presentation client in JADE thin client mode and you want to log sampling files on the application server, you must set this up when the JADE Monitor is running, by using step of the **Monitor Setup** activity (see step 4 of the instruction documented under "Setting Up the JADE Monitor", later in this chapter) or by loading a directives file (see "Loading Directives", in Chapter 2).

Initiating the JADE Monitor

The freestanding **Jade Monitor** program icon or the **Monitor** command from the Browser File menu enables you to monitor, examine, and analyze your JADE systems, nodes, and processes.

The JADE Monitor is installed in your database directory as part of the JADE installation process. The default multiuser installation sets up the **JADE MultiUser \ JADE Monitor** shortcut for the JADE Monitor.

The following table lists examples of the properties required to run the JADE Monitor, installed in your database directory.

Property	Example
Command line	d:\jade\bin\jade.exe path=s:\jade\system ini=s:\jade\system\jade.ini app=JadeMonitor schema=JadeMonitorSchema
Working directory	d:\jade\bin

Running the JADE Monitor as a Background Process

The read-only JADE Monitor background application, which you can set up to start automatically when a node starts, gathers and records information that can be replayed and assessed later (for example, to forward to JADE Support for problem analysis and resolution if your JADE licence includes support).

You can start the JADE Monitor background application by:

- Using the predefined application (that is, ***ServerApplication<application-number>*=JadeMonitorSchema, JadeMonitorBackground**) in the [JadeServer] section of the JADE initialization file on the server node to start the background application when the server node starts up
- Selecting the **Start Monitor Background Application** command from the File menu in the GUI JADE Monitor
- From the command line; for example:

```
jade.exe path=s:\jade\system schema=JadeMonitorSchema app=JadeMonitorBackground
ini=s:\jade\system\supportdirectives.ini
```

  The JADE initialization file specifies the directives file to run against (for example, if you want to run multiple JADE Monitor background applications with different directives files concurrently, you could have a separate JADE initialization file for each directives file).

Notes You can run multiple JADE Monitor background applications concurrently; for example, to record different sets of data for your JADE system.

The JADE Monitor background application does nothing if a directives file containing the statistics to be recorded has not yet been saved to the path and file specified in the **DirectivesFile** parameter in the [JadeMonitorBackground] section of the JADE initialization file (that is, if the directives file is empty, it does not exist, or it is not specified, the background monitor application is launched but does nothing). For details, see the *JADE Initialization File Reference*.

Accessing the JADE Monitor

To access the JADE Monitor, perform one of the following actions

- Click the **Monitor** toolbar button in the JADE development environment.
- Select the **Monitor** command from the JADE development environment Browser File menu.
- Select the **Jade Monitor** program icon from your JADE program folder, to run the standalone JADE Monitor application.
- Running the JADE Monitor application from the command line, as shown in the following example.

```
jade.exe path=s:\jade\system ini=s:\jade\system\jade.ini
schema=JadeMonitorSchema app=Admonitions
```

The JADE Monitor sign-on dialog is then displayed. When security is set for your JADE development environment, you can sign on to the JADE Monitor only if you have the appropriate access permission. When you click the **OK** button and you have access permission, the JADE Monitor Summary view is then displayed.

If you want to display another view (for example, the Users view) when the monitor is initialized, specify the valid view name in the **DefaultPane** parameter in the [JadeMonitor] section of the JADE initialization file on the client node.

For details about:

- Setting up the JADE Monitor, see "Setting Up the JADE Monitor", later in this chapter.
- Using the JADE Monitor, see Chapter 2, "Using the JADE Monitor for System Instrumentation and Diagnosis".
- Using system instrumentation and diagnosis methods in your JADE applications to examine your JADE system, nodes, or processes, see Chapter 4, "JADE System Instrumentation and Diagnosis", of the *JADE Object Manager Guide*.

  In an SDS environment, the secondary database server has a node stub that represents the primary server node. This node stub does not have the full functionality of a normal client; in particular, some statistical functions cannot be carried out on the node stub (for example, getting a node's cache statistics).

  Any attempt to do so raises exception 1265 (*Environmental operation out of scope for process*). You can use the value returned by the **Node** class **nodeRole** method to distinguish the node stub from standard client nodes. For the node stub, the returned value is the **Node** class **Role_Replay** constant (as opposed to the **Role_Standard** constant).
- The context-related help information (knowledge base) that is displayed at the lower-right of the window of each view and selected component, see "Maintaining Knowledge Base Information", in Chapter 2.

Calling the JADE Monitor from a Web Service Consumer

You can invoke a subset of the JADE Monitor functionality from a Web service consumer by using the **JadeMonitorV2WS** application provided by JADE in the **JadeMonitorSchema** schema.

Before you run the **JadeMonitorV2WS** application provided in the **JadeMonitorSchema**, you will probably want to override the default application parameters; for example, the connection name and the port number.

The **JadeWebConfigurator** application that is also provided in the **JadeMonitorSchema** enables you to create and maintain a configuration file for the **JadeMonitorV2WS** application. For details, see Chapter 3, "Configuring Web Applications", in the *JADE Web Application Guide*.

The following example is the command line to run the **JadeMonitorV2WS** application.

```
jade.exe path=s:\jade\system schema=JadeMonitorSchema app=JadeMonitorV2WS
ini=s:\jade\system\jade.ini
```

Alternatively, you can create a shortcut to run this application from the JADE installation directory in which the JADE executables were installed (which defaults to the **bin** directory).

The JADE Web Application Monitor is then displayed. For details, see Chapter 2, "Monitoring Your Web Sessions", in the *JADE Web Application Guide*.

A default WSDL, **JadeMonitorV2WS.wsdl**, is provided in the **wsdl** folder in the JADE release medium.

This Web service exposes a subset of the JADE Monitor functionality; that is, items that are not practical to expose are not included in the Web service. The excluded items include exposing mechanisms to select specific classes or methods from a schema to profile, as too much traffic would have to be sent to describe the full schema content.

The Application Programming Interface (API) framework provides methods that you can incorporate into JADE applications to construct a custom Web service exposure in your JADE environment to consolidate or extend features provided by the **JadeMonitorV2WS** application. (For details, see Chapter 4, "JADE System Instrumentation and Diagnosis", of the *JADE Object Manager Guide*.)

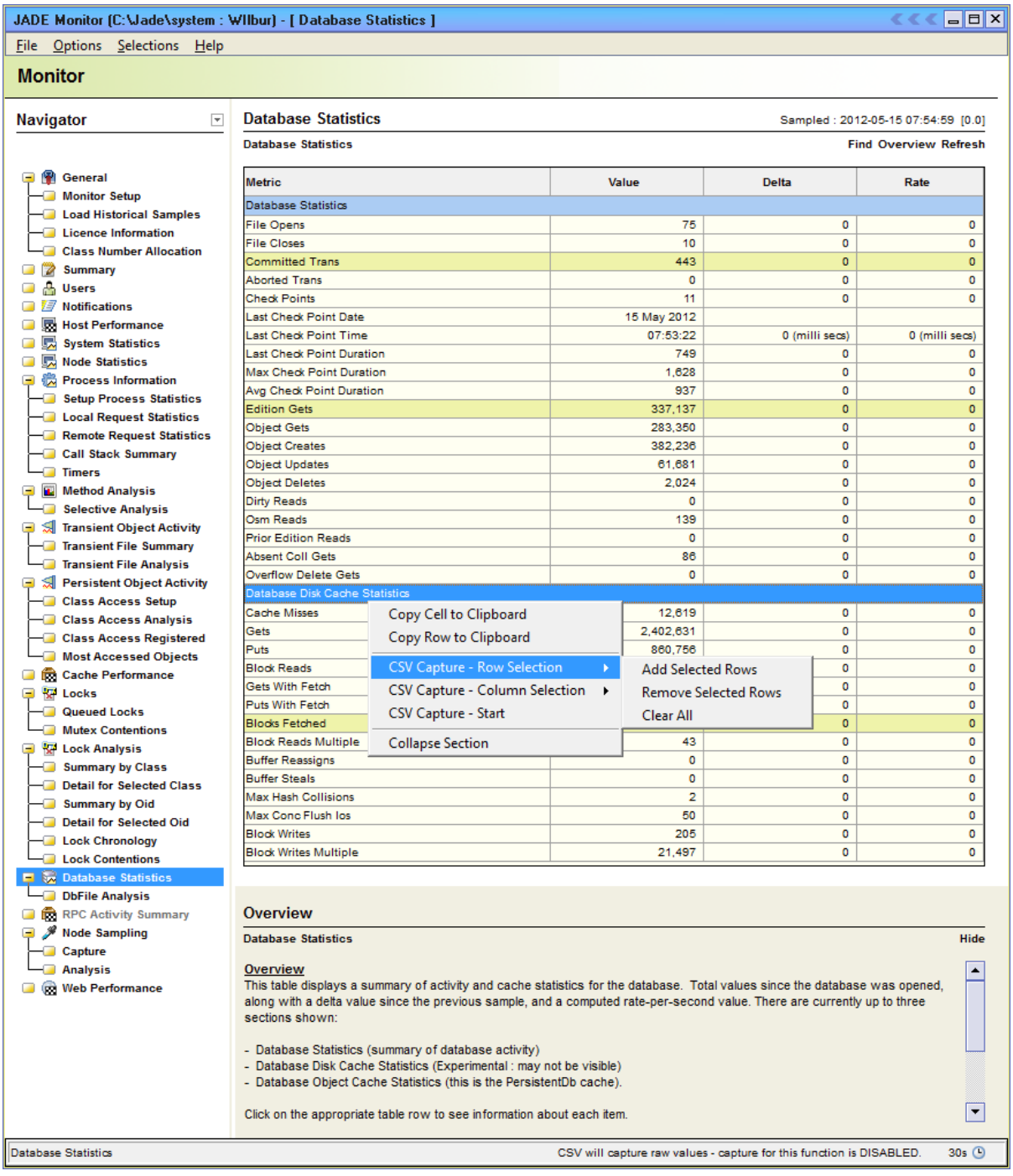
The JADE Monitor Web service consumer uses client-side XSLT to convert the Web service response message into table data that is displayed to the user. For more details, see the *Web Services* white paper on the JADE Web site at https://www.jadeworld.com/developer-center/resource-library/white-papers.

Structure of the JADE Monitor Window

The JADE Monitor window consists of the:

- Navigator pane at the left
- Activity view in which general information or detailed metrics are displayed at the upper right
- Overview pane (that is, knowledge base articles) at the lower right

An example of the JADE Monitor window is shown in the following diagram.



Details of the last time a sample of the displayed activity was taken are displayed at the upper-right of the window.

The Navigator pane is structured in a top-to-bottom hierarchy, to enable you to drill down through metrics and statistics when analyzing your system; for example:

1. Host performance
2. System statistics
3. Node statistics
4. Process statistics
5. Method analysis
6. Persistent object activity (for example, the most-accessed classes or objects)

   Caution The recording of class access frequency statistics can have an impact on performance. You can register or de-register a process from class access frequency sampling, to reduce any overhead caused by maintaining counters for a large number of classes.

7. Cache performance
8. Database statistics

Selecting an activity group or activity in the Navigator pane displays metrics in the activity view for that activity or group. The Overview pane is then updated to display general information about the selected activity or group and the activity view to display general activities or metrics for the selection.

Tip As you click on a metric displayed in a table of statistics, the Overview pane is refreshed to display information specific to that statistic.

When you move to another sheet (for example, **Notifications**), the sizes of the columns on the table for the previous sheet are discarded. If you return to the original sheet, any saved columns are discarded and the tables are automatically resized. As any column sizes that you have set manually will be lost, you must manually set them again, if required.

For more details about using the JADE Monitor to drill down from general information to fine component analysis, see "Using the Navigator Pane", in the following subsection.

Using the Navigator Pane

To enable you to monitor how well your systems are running and to easily identify aspects that have the most impact on performance, the hierarchical Navigator pane enables you to drill down from a general overview through to fine component analysis (for example, in an emergency situation where you have the need to quickly identify the likely cause of the problem or to identify major bottlenecks if your application is performing poorly).

The Navigator pane also enables you to access network traffic statistics, which you can use in conjunction with shared memory use; for example, to identify the impact of queuing for locks on heavily contended objects and to analyze node statistics output.

The graphical nature of the JADE Monitor enables you to:

- Observe trends
- Correlate different types of statistics
- Profile methods or processes and to display the profile results

JADE Monitor method profiling displays the:

- Number of times an invoked method is called
- Total CPU and elapsed time spent in the method (including nested calls)
- Total CPU and elapsed time spent in the method (excluding nested calls)

You can specify profiling for all internal and external methods, selected methods only, or selected methods and the methods called by them.

Node sampling enables you to analyze the maximum and minimum time spent in each method and a more-detailed analysis of method execution (for example, how much time is spent locking, fetching, or updating objects, initiating notification events, and so on.)

Lock conflict analysis and resolution enables you to detect when a contended lock is causing lengthy queuing, analyzing whether the process with the lock should be informed, and the ability to resolve the situation, if required.

Statistics analysis analyzes the statistics that are gathered and produces meaningful analysis from it; for example, you could use the JADE Monitor background application to check for alarm situations and to take the appropriate action (for example, issuing SNMP traps). The statistics that you can analyze include:

- Mutex contentions
- Database cache statistics
- RPC number of trips
- Other RPC statistics
- Other database statistics

Setting Up the JADE Monitor

When you first access a JADE Monitor, set it up to meet your own requirements. Alternatively, you can maintain user preferences for the current JADE Monitor work session.

» To set up the JADE Monitor or maintain your user preferences

1. Expand the General activity group in the Navigator pane at the left of the JADE Monitor window and then select the **Monitor Setup** activity. (Alternatively, you can click the (icon at the upper-right of the Navigator pane, to expand all collapsed activity groups and then select the **Monitor Setup** activity.)

   The **Monitor Setup** view of the General activity group is then displayed at the right of the window.

2. If you want to activate the timer, check the **Activate Timer** check box. Alternatively, click the clock icon at the right of the status line. The cross symbol is then removed from the clock icon, indicating that the timer is active.

   Note When the timer is active, activities that are selected for sampling are displayed in a red font in the Navigator pane.

3. If you want to change the frequency of sampling, enter the number of seconds in the **Frequency** text box (for example, if you want sampling to occur at 45 seconds intervals rather than the default 30 seconds interval).

   The maximum time interval is 32,400 seconds, or nine hours.

The number of seconds that you specify in this text box is displayed in parentheses after the **Timer Interval** command in the Options menu.

4. If you want to change the path and directory to which sampling files are logged, enter the value in the **Log Output Path** text box. (For details of the type and location of this file, see the discussion in the knowledge base article at the lower right of the window.) Alternatively, click the **Browse** button and select the path and directory in the common Browse For Folder dialog that is then displayed.

   For details about the default log file location, see "Log File Location", earlier in this chapter.

5. In the **Periodically Sampled Items** list, check the check box at the left of each item that you want sampled periodically.

   Alternatively, if you want to select all items or clear all selected items from periodic samples, right-click in this list (or press SHIFT+F10) and select the respective **Select All** or **Clear All** command from the popup menu that is then displayed. (For details, see "Selecting All Items or Clearing the Selection of All Items in a List", later in this chapter.)

6. In the **Samples Logged to File** list, check the check box at the left of each item whose samples you want logged to the file specified in the **Log Output Path** text box. (For details about toggling the logging of sampled activities to a file, see "Logging a Sample to a File", in Chapter 2.)

   Alternatively, if you want to select all items or clear all selected items from samples, right-click in this list (or press SHIFT+F10) and select the respective **Select All** or **Clear All** command from the popup menu that is then displayed. (For details, see "Selecting All Items or Clearing the Selection of All Items in a List", later in this chapter.)

   You can set up a JADE Monitor session to periodically sample specified performance metrics, with the option of writing any or all of the sampled metrics to a file (to log file for future playback in another JADE Monitor session or to a CSV file for use in an external program). For details, see "Logging a Sample to a File" or "Starting or Stopping the Capture of Data to a CSV File", in Chapter 2.

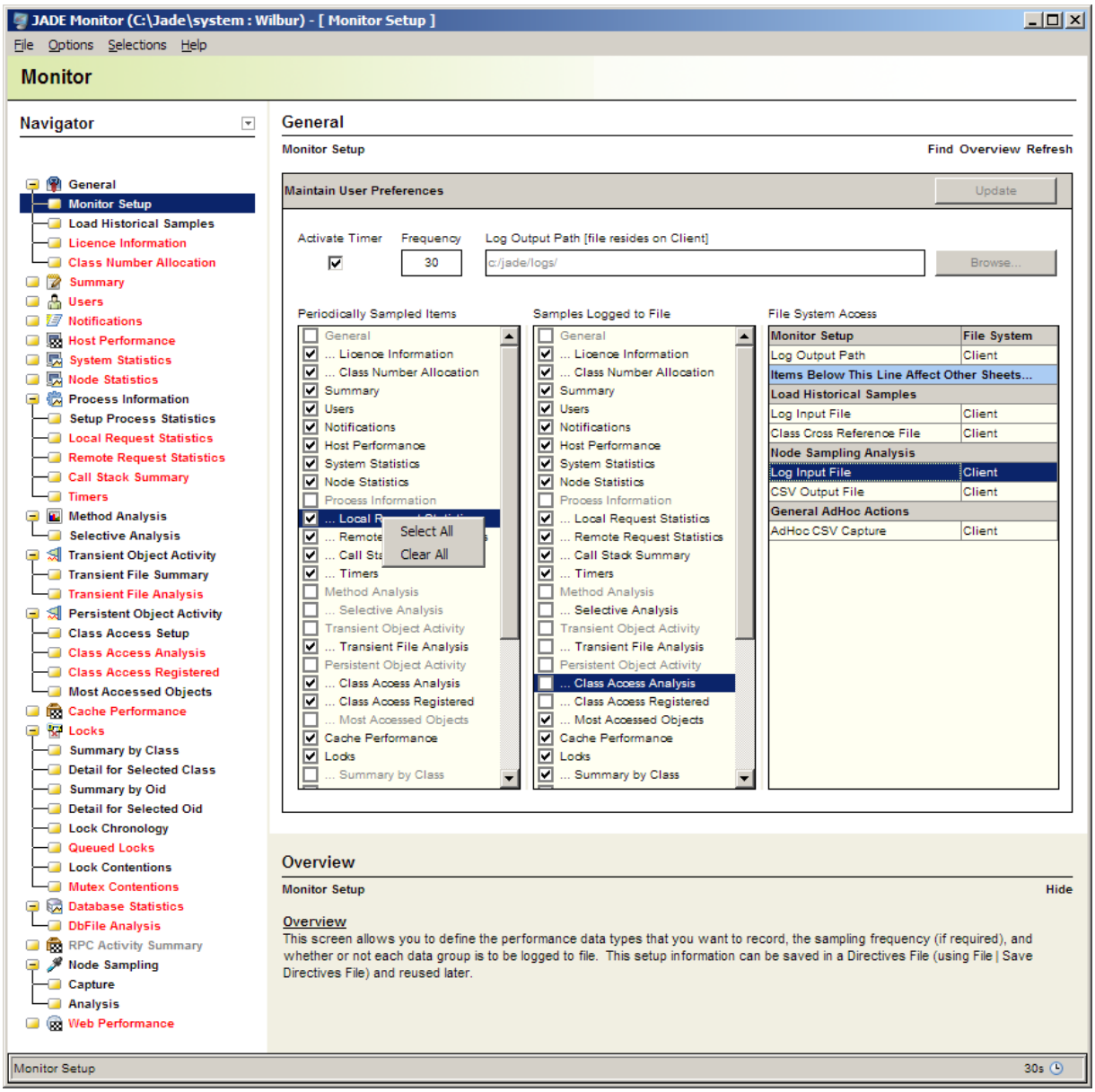
7. In the **File System Access** table, click the row of the **File System** column whose file system you want to change and then select the **Server** value in the drop-down list if you want to change the file system from the default **Client** value or the **Client** value if you want to change the **System** file system back to the client.

   As the log output path applies only to the client system, there is no drop-down list in the **Log Output Path** row in the **File System** column.

8. Click the **Update** button, to save your preferences.

Note If you have changed any of the controls in the **Monitor Setup** view and you click **Refresh** at the upper right of the window (or you press F5) *before* you click the **Update** button, your changes are abandoned.

The following diagram shows an example of the **Monitor Setup** view in the General activity group.



If you want to save your user preferences to a directives file so that you can use the same preferences for subsequent JADE Monitor work sessions, select the **Save Directives** or **Save Directives As** command from the File menu. For details, see "Saving Directives" or "Saving the Directives File as another Name", in Chapter 2.

Chapter 2 Using the JADE Monitor for System Instrumentation and Diagnosis

This chapter covers the following topics.

- Using JADE Monitor Menus
  - Performing File Menu Command Actions
  - Performing Options Menu Command Actions
  - Performing Selections Menu Command Actions
  - Performing Help Menu Command Actions
  - Performing Maintenance Menu Command Actions
  - Performing Popup Menu Command Actions
- Maintaining Knowledge Base Information

Using JADE Monitor Menus

The menus (and the commands in menus) that are displayed at any time depend on the activity or element from which you access the menu. For example, the Maintenance menu and its functions are visible only in the Knowledge Base Help Editor view of the **JadeMonitorV2HelpEditor** application.

For details about the structure of the JADE Monitor window, see "Structure of the JADE Monitor Window", in Chapter 1.

Notes Menu commands that are not available for selection are disabled.

There are faster ways of accessing some frequently used functions; for example, by clicking a button or using shortcut keys.

Right-click or press SHIFT+F10 on a component, activity, activity group, or pane to quickly display a popup (context) menu that provides choices for that item. (See "Popup Menus", later in this chapter.)

The JADE Monitor provides the menus listed in the following table.

Menu	Provides commands that enable you to …
File	Perform file-related tasks and to exit or log off from the JADE Monitor
Options	Specify options for the JADE Monitor
Selections	Switch views
Help	Obtain information about the JADE Monitor
Maintenance	Extract and load a knowledge base text file
Popup	Access commands applicable to the selected element

For details, see the following subsections.

Performing File Menu Command Actions

The File menu provides the commands listed in the following table.

Command	For details, see…
Load Directives File	Loading Directives
Save Directives File	Saving Directives
Save Directives File As	Saving the Directives File as another Name
Extract Class Cross Reference	Extracting a Class Number Cross-Reference
Start Monitor Background Application	Running the JADE Monitor as a Background Process, in Chapter 1
Historical Mode – Load Log File	Loading Files in Historical Mode
Revert to Normal Mode	Reverting to Normal Mode
Print	Printing the Contents of an Activity View
Log Off	Logging Off from the JADE Monitor
Release Log File	Releasing a Log File
Exit	Exiting from the JADE Monitor

Maintaining Directives

The text-based directives file stores sampling set-up parameters and is read when the JADE Monitor or JADE Monitor background application initiates, to determine:

- The samples (if any) that are to be taken at a specified frequency
- The samples (if any) that are to be written to log files
- The target periodic sampling frequency
- If the periodic sampling timer is active

The JADE Monitor creates or updates the directives file when you save the current monitor preferences to the local directives file specified in the **DirectivesFile** parameter in the [JadeMonitor] section of the JADE initialization file or to a specified directives file. For details about the default location to which sampling files are logged when running the JADE Monitor in thin client mode, see "Log File Location", in Chapter 1.

The following is an example of the directives file.

```
JadeMonitorDirectivesFile:20081225
sampleInterval:30000
sampleIntervalActive:false
MonFS_LogFileOutDir:C:/jadeTest/logs/monitor/
MonFS_HistoryFileIn:Client
MonFS_HistoryXRefFileIn:Client
MonFS_LogFileOut:Client
MonFS_NodeSamplingLogFileIn:AppServer
MonFS_NodeSamplingLogFileOut:Client
MonFS_AdHocCSVFileOut:Server
```

You can therefore provide a directives file to another user (who is potentially using a different JADE system), to capture specified metrics and most likely to log the results to file.

A Graphical User Interface (GUI) Monitor session can collect any sampling data that you require. You do not have to save a directives file unless you want to use a specific set of sampling directives at a later date. For details about setting up sampling, see "Setting Up the JADE Monitor", in Chapter 1.

However, a JADE Monitor background application must have a directives file specified in the **DirectivesFile** parameter in the [JadeMonitorBackground] section of the JADE initialization file to instruct the background process which samples to collect (that is, if the directives file is empty, it does not exist, or it is not specified, the background monitor application is launched and then does nothing). See also "Running the JADE Monitor as a Background Process", in Chapter 1.

Loading Directives

You can load an existing directives file into the JADE Monitor by referencing that file in the **DirectivesFile** parameter in the [JadeMonitor] in the JADE initialization file or by using a menu command.

To load an existing directives file into your current JADE Monitor work session

1. Select the **Load Directives File** command from the File menu. The common Load File dialog is then displayed.
2. Select the directives file that you want to load, and then click the **Open** button.
3. Click the **OK** button on the Load Complete message box that is then displayed.

The JADE Monitor window is then updated (for example, activities that are selected for sampling are displayed in a red font in the Navigator pane and user options in that directives file are displayed in the Monitor Setup view.

Saving Directives

When the directives file is saved, the current state of the JADE Monitor sampling setup is saved to the local directives file specified in the **DirectivesFile** parameter in the [JadeMonitor] of the JADE initialization file.

To save the current sampling setup to the default directives file

- Select the **Save Directives File** command from the File menu.

The Info message box is then displayed, stating that the directives file has been written to the directives file name (which defaults to **Directives.txt**) and location (which defaults to the JADE installation directory) specified by the **DirectivesFile** parameter in the [JadeMonitor] of the JADE initialization file. Click the **OK** button to return focus to your current JADE Monitor view.

Saving the Directives File as another Name

You can save the current state of the JADE Monitor sampling setup to a name and location other than the local directives file specified in the **DirectivesFile** parameter in the [JadeMonitor] of the JADE initialization file. For example, if you want to run multiple JADE Monitor background applications with different directives files concurrently, you can save different sampling setups to different names and locations and then have a separate JADE initialization file to run against for each directives file.

To save the current sampling setup to a name and location of your choice

1. Select the **Save Directives File As** command from the File menu.

   The common Save Current Directives As dialog is then displayed.
2. In the **File Name** text box, specify the prefix that you require for the directives text file.

3. In the **Save In** combo box, specify or select the location to which the directives file is saved.
4. Click the **Save** button.

The Info message box is then displayed, stating that the setup values have been written to the specified directives file name (which defaults to **Directives.txt**) and location.

Click the **OK** button to return focus to your current JADE Monitor view.

Extracting a Class Number Cross-Reference

You can extract a class number cross-reference for subsequent replay in another JADE Monitor work session (for example, so that JADE Support can replay files that you provide them to analyze a problem and associate class names with class numbers in other files that you provide them for investigation).

» To extract the class number cross-reference to a name and location of your choice

1. Select the **Extract Class Cross Reference** command from the File menu. The common Extract Class Cross Reference dialog is then displayed.
2. In the **File Name** text box (which default to **classCrossReference.txt**), specify the file name that you require for the class cross-reference file if you want a text file with a file prefix other than the default value.
3. In the **Save In** combo box (which defaults to the JADE installation directory), specify or select the location to which the class number cross-reference text file is saved.
4. Click the **Save** button.

The Info message box is then displayed, stating that the class number cross-reference values have been written to the specified file name and location. Click the **OK** button to return focus to your current JADE Monitor view.

Loading a Log File in Historical Mode

In historical mode, you can load a log file of previously captured data into the JADE Monitor. The source of the data can be from your own JADE system or from another JADE system. For details about logging a sampled activity to file for subsequent loading as historical data in another JADE Monitor session, see "Logging a Sample to a File", later in this chapter.

Historical mode also enables you to load an extracted class number cross-reference. For details, see "Extracting a Class Number Cross-Reference", in the previous section.

» To load a log file into your JADE Monitor work session in historical mode

1. Select the **Historical Mode – Load Log File** command from the File menu.

   All current periodic sampling then ceases and the **Load Historical Samples** view of the General activity group is displayed.
2. In the **Log Input File** text box, enter the path and the name of the log file that you want to load or click the **Browse** button and select the file in the common Load Samples from Log File dialog that is then displayed.
3. If you also want to load a class numbers cross-reference file, in the **Class Cross Reference File** text box, enter the path and the name of the cross-reference text file that you want to load or click the **Browse** button and select the file in the common Load Class Cross Reference File dialog that is then displayed.
4. A large sampling log file can take a long time to load.

You can therefore filter the sample types that you want to load, by unchecking the check boxes in the **Select Sample Types to Load** list at the left of the **Load Historical Samples** view of each sample type that you do not want to load.

5. If you want to keep existing historical samples, uncheck the **Clear Existing Historical Samples** check box in the Additional Load Options group box.
6. If you want to load historical data that was sampled within a specific time range, enter the start and end times (in twenty-four hour clock format) in the **Time Filter** text boxes in the Additional Load Options group box.
7. Click the **Load Samples** button. The load process is then started and the progress is displayed in the Additional Load Options group box.
8. When the load process is complete, click the **OK** button on the Load Complete message box that is then displayed.

   The activities for which valid data has been loaded are then highlighted in red in the Navigator pane.
9. To display the time or times at which an activity was sampled, click on an activity highlighted in red in the Navigator pane. The timestamp of each sample is then displayed in the **Sample Timeline** list box at the lower right of the window.

   The check boxes in each row of the **Sample Timeline** list box are bookmarks that enable you to check samples of interest, go the another sample type, and then return to the previous sample and see the persisted bookmarks.
10. To view details of a sampled activity, click on a sampled timestamp. Details about that activity are then displayed in the corresponding view; for example, the **Most Accessed Classes** view of the Persistent Object Activity group.

For more details, see the Overview pane (that is, knowledge base articles) at the lower right of the JADE Monitor window.

Reverting to Normal Mode

When you have loaded a log file of sampled data in historical mode, the **Revert to Normal Mode** command is then enabled in the File menu.

» To revert to normal JADE Monitor work session mode

- Select the **Revert to Normal Mode** command from the File menu.

Periodic sampling then resumes and highlighting of loaded valid sampling data is removed from those activities in the Navigator pane.

Printing the Contents of an Activity View

You can print the contents of an activity view; for example, the table of **Most Accessed Classes**.

» To print the current activity view

1. Select the **Print** command from the File menu. Alternatively, press CTRL+P.

   The common Print Monitor Table dialog is then displayed, to enable you to specify your print options; for example, the printer name and the number of copies.

2. Make the selections that you require.
3. Click the **OK** button. Alternatively, click the **Cancel** button to abandon your selections.

The print preview of your current view is then displayed on your monitor. For details about previewing print output, see "Previewing Print Output", in Volume 2 of the *JADE Encyclopaedia of Classes*.

Logging Off from the JADE Monitor

The **Log Off** command in the File menu enables you to exit from your JADE Monitor work session, in preparation for starting a new work session.

When you log off from the JADE Monitor:

- Any current sampling ceases.
- All locks are released.
- All objects are cleared from memory.

» To log off from the JADE Monitor

- Select the **Logoff** command from the File menu.

The JADE Monitor sign-on dialog is then displayed again, to enable you to sign on as the same user or a different user. For example, if you want to run a new copy of the JADE Monitor as this requires a different sign-on user code to enable files to be kept separate but still allow for all logging undertaken by a specific user to be logged to one file each day, regardless of how many times that user starts and stops the JADE Monitor.

Releasing a Log File

You can release a **jommon.log** file that has been created in your current work session without having to exit from the JADE Monitor; for example, if you want to start the file from scratch to attach it to another application or to rename it.

» To release a log file

- Select the **Release Log File** command from the File menu. (This command is disabled if the log file has not yet been opened.)

The Info message box is then displayed, stating that the current log file has been released and renamed. Click the **OK** button to return focus to your current JADE Monitor view.

The current log file (named **jommon_*CCYYMMDD_user-id*.log**) is then released, it is renamed **jommon_*CCYYMMDD_user-id*_released_*HHMMSS*.log**, and a new empty log file is created for any additional logging in the current work session.

Exiting from the JADE Monitor

Select the **Exit** command from the File menu to terminate the JADE Monitor.

» To exit from the JADE Monitor, perform one of the following actions

- Select the **Exit** command from the File menu.
- Click the close icon at the top right corner of the window or select the **Close** command from the Control-

Menu.

- Press ALT+F4.

When you exit from the JADE Monitor:

- Your current window settings are saved
- The JADE Monitor is closed
- All locks and the log file are released
- All objects are cleared from memory

Note Any current runtime JADE application is not terminated when you exit from a JADE development work session.

Performing Options Menu Command Actions

The Options menu provides the commands listed in the following table, which enable you to specify your JADE Monitor options.

Command	For details, see…
Font Bigger	Increasing the Font Size
Font Smaller	Decreasing the Font Size
Activate Timer *(nnn)*	Activating the Timer for the Specified Period
Timer Based Sampling Setup	Setting Up Timer-Based Sampling
Highlight Timer Sampled Items	Toggling the Highlighting of Activities Sampled by the Timer
Navigator Click Causes Refresh	Clicking in the Navigator Pane to Refresh the Current View
Find	Locating an Element in the Current View
Overview	Toggling the Display of Knowledge Base Information
Refresh	Refreshing the Current View
Refresh All	Refreshing All Views
Clear Table Sort Settings	Clearing Table Sort Settings

Increasing the Font Size

» **To increase the size of the displayed font, perform one of the following actions**

- Select the **Font Bigger** command from the File menu.
- Press CTRL+1.

The font size is then doubled (that is, increased by a factor of 100 percent).

You can repeat this action once more if you want the displayed font to be 200 percent larger than the default font (that is, this command is disabled when you have selected it twice in succession).

Decreasing the Font Size

To decrease the increased size of the displayed font, perform one of the following actions

- Select the **Font Smaller** command from the File menu.

  This command is disabled when the text in the JADE Monitor is the default font size.

- Press CTRL+0.

The font size is then halved (that is, decreased by a factor of 100 percent).

You can repeat this action once more if you want the displayed font to be 200 percent smaller than the maximum increased font size and returned to the default font size (that is, this command is disabled when you have selected it twice in succession).

Activating the Timer for the Specified Period

To activate the sampling of activities at a specified period, perform one of the following actions

- Select the **Activate Timer *(nnn)*** command from the Options menu.

  The value in parentheses is the number of seconds at which sampling occurs and which is specified on the **Monitor Setup** view of the General activity group.

- Press CTRL+F8.

The timer is then activated, the cross symbol is removed from the clock icon at the right of the status bar, activities that are selected for sampling are displayed in a red font in the Navigator pane and the Options menu displays the **Stop Timer** command.

Alternatively, if the timer is activated, select the **Stop Timer** command to deactivate the timer. The timer is then deactivated and the Options menu displays the **Activate Timer** command.

For details about changing the frequency of sampling (for example, from the default sampling interval of 30 seconds), see "Setting Up the JADE Monitor", in Chapter 1.

Setting Up Timer-Based Sampling

To set up timer-based sampling

- Select the **Timer Based Sampling Setup** command from the Options menu.

The **Monitor Setup** view of the General activity group is then displayed. For details about setting up timer-based sampling, see "Setting Up the JADE Monitor", in Chapter 1.

Toggling the Highlighting of Activities Sampled by the Timer

In normal mode, activities sampled by the timer are highlighted in a red font in the Navigator pane by default, to provide a visual indication of the items selected for sampling.

The **Highlight Timer Sampled Items** command from the Options menu enables you to toggle the display of highlighted activities. For details about setting up timer-based sampling, see "Setting Up the JADE Monitor", in Chapter 1.

To hide or display the highlighting of activities sampled by the timer

- Select the **Highlight Timer Sampled Items** command from the Options menu.

A check mark (✓) is displayed to the left of the command in the Options menu when activities sampled by the timer are highlighted.

Clicking in the Navigator Pane to Refresh the Current View

By default, the most-recently taken sample is displayed in an activity view. The **Navigator Click Causes Refresh** command from the Options menu enables you specify that you want a new sample taken and the resulting data displayed in the corresponding view when you click on an activity in the Navigator pane.

By default, data from the most-recent sample is displayed; that is, clicking the Navigator pane does not cause a new sample to be taken and the sampled data displayed.

To activate the taking of a new sample and the display of that data when an activity is clicked

- Select the **Navigator Click Causes Refresh** command from the Options menu.

A check mark (✓) is displayed to the left of the command in the Options menu when an activity clicked in the Navigator pane causes the sampling of that activity and the display of the sampled data.

To view various statistics without causing an intermediate sample to be taken, uncheck the **Navigator Click Causes Refresh** command to remove the check mark (✓) displayed to the left of the command.

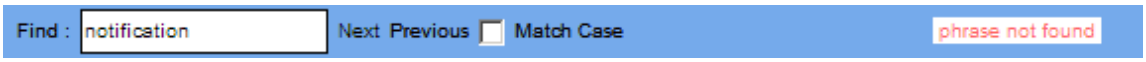
Locating an Element in the Current View

You can locate an element in the current view; for example, the id of a user in the **Users** view that you want to sign off from the JADE Monitor or a statistical attribute in **Cache Performance** view.

To locate an element in the current view

1. Select the **Find** command from the Options menu. Alternatively, press F3 or click the **Find** button at the upper right of the current view.

   The search bar is then displayed with a blue background at the bottom of the view, as shown in the following diagram.

2. In the **Find** text box, enter the value that you want to locate in the current view.
3. If you want the exact match by case (where uppercase or lowercase is significant), check the **Match Case** check box. A search is then performed for text with the same capitalization as the text in the **Find** text box. By default, searching is case-insensitive; that is, this check box is unchecked.
4. Click the **Next** button to perform a search of the values in the current view. If no match is found, *phrase not found* is displayed in red at the right of the search bar. If the specified phrase is located, the first instance of the phrase in that view is then selected.
5. Click the **Next** button if you want to locate the next instance of the specified phrase in the view (or keep pressing the ENTER key).

   Alternatively, click the **Previous** button if you want to locate the previous instance of that phrase.
6. To hide the search bar, repeat step 1 of this instruction (that is, to toggle the display of the search bar).

Toggling the Display of Knowledge Base Information

The Overview pane, which is displayed by default at the lower right of the JADE Monitor window, provides you with knowledge base information about the current view.

To toggle the display of the Overview pane, perform one of the following actions

- Click the **Overview** button at the upper right of the activity view.
- Click the **Hide** button at the upper right of the Overview pane.
- Select the **Overview** command from the Options menu.
- Press F4.

For details about loading an updated knowledge base file provided by JADE Support into your JADE system, see "Maintaining Knowledge Base Information", later in this chapter.

Refreshing the Current View

You can add an activity component to or remove an activity component from a periodic sample group by:

- Right-clicking or pressing F10 on an activity or activity group in the Navigator pane and then selecting the **Add to Periodic Sampling Group** command from the popup menu that is displayed
- Selecting the appropriate activity in the **Periodically Sampled Items** list on the **Monitor Setup** view, accessed from the General activity group in the Navigator pane

If the activity of the current view has been selected for periodic sampling, it is refreshed as the timer fires. If the activity of the current view has *not* been set up for periodic sampling, view is not refreshed when the timer activates.

If the currently displayed activity is not selected for periodic sampling by the JADE Monitor timer function, the **Refresh** button is enabled so that you can click it if you want to take a new sample of the activity. The **Refresh** button is disabled if the activity is selected in the **Periodically Sampled Items** list.

If the **Users** or **Setup Process Statistics** view is the current view and the **Navigator Click Causes Refresh** command is checked, the **Refresh** button is highlighted with a red font when an add or delete notification has been received for a node or process, to indicate that view changes are pending and the view will not be refreshed until the next timer event is fired, you click the **Refresh** button, or you press F5.

To take a new sample of the current activity and display the sampled data

- Click the **Refresh** button.

  Alternatively, press F5.

A new sample of that activity is then taken, the current activity view is refreshed with new details, and the date and time at which the sample was taken and the number of seconds since the last sample was taken of that activity is displayed at the upper right of the view.

For details about clicking an activity in the Navigator pane to take a new sample and display the sampled data, see "Clicking the Navigator Pane to Refresh the Current View", earlier in this chapter.

Refreshing All Views

If the displayed activity is not selected for periodic sampling by the JADE Monitor timer function, the **Refresh All** button is enabled so that you can click it if you want to take a new sample of all activities.

Before you can select the **Refresh All** command, you must have selected entities for sampling in the **Monitor Setup** view of the General activity group and pressed the **Update** button.

To take a new sample of all activities and update the displayed the sampled data on all views

- Select the **Refresh All** command from the Options menu. Alternatively, press CTRL+F5.

Any item that has been selected for periodic sampling (that is, on the **Monitor Setup** view, in a loaded directives file, or by right-clicking the activity in the **Navigator** view and then selecting the **Add to Periodic Sampling Group** command from the popup menu that is displayed) is refreshed when you select the **Refresh All** command.

Clearing Table Sort Settings

You can sort the columns of data in the tables of sampled activities, except for transient file analysis and call stack analysis. When a table is sorted, changing the sort column (clicking the column header row) retains the sort direction of the previously selected column.

To sort a column of sampled data in ascending order

- Click in the heading of the column whose data you want to sort.

The table is then refreshed, with the values in the selected column listed in ascending order (that is, with the lowest number or character closest to the start of the alphabet in that column at the top of the table and the highest number or last alphabetic character at the bottom). In addition, the (icon is displayed at the left of the column heading caption.

To sort a column of sampled data in descending order when it is sorted in ascending order

- Click in the heading of the column that is currently sorted in ascending order.

The table is then refreshed, with the values in the selected column listed in descending order (that is, with the highest number or character closest to the end of the alphabet in that column at the top of the table and the lowest number or first alphabetic character at the bottom). In addition, the (icon is displayed at the left of the column heading caption.

To clear the sorting of a table column, perform one of the following actions

- Select the **Clear Table Sort Settings** command from the Options menu.
- Press F6.

The sorting of a column in the table in the currently displayed activity is then cleared, with the data listed in the order that it was sampled.

Performing Selections Menu Command Actions

The Selections menu provides the commands listed in the following table, which enable you to select one of the following activity views.

Command	For details, see…
Locks	Displaying the Locks View
Notifications	Displaying the Notifications View
Queued Locks	Displaying the Queued Locks View

Command	For details, see…
Statistics	Displaying the Statistics View
Users	Displaying the Users View
Licence Info	Displaying the Licence Information View

Displaying the Locks View

Select the **Locks** command from the Selections menu to display the **Locks** view if it is not the current view. For details about the **Locks** view, see the Overview pane (that is, knowledge base information) at the lower right of the JADE Monitor window.

To display the Locks view, perform one of the following actions

- Select the **Locks** command from the Selections menu.
- Click the **Locks** activity group in the Navigator pane.

The **Locks** view is then displayed, loaded with the latest lock information.

Displaying the Notifications View

Select the **Notifications** command from the Selections menu to display the **Notifications** view if it is not the current view. For details about the **Notifications** view, see the Overview pane (that is, knowledge base information) at the lower right of the JADE Monitor window.

To display the Notifications view, perform one of the following actions

- Select the **Notifications** command from the Selections menu.
- Click the **Notifications** activity in the Navigator pane.

The **Notifications** view is then displayed, loaded with data from the most-recent sample of notifications.

Displaying the Queued Locks View

Select the **Queued Locks** command from the Selections menu to display the **Queued Locks** view if it is not the current view. For details about the **Queued Locks** view, see the Overview pane (that is, knowledge base information) at the lower right of the JADE Monitor window.

To display the Queued Locks view, perform one of the following actions

- Select the **Queued Locks** command from the Selections menu.
- Click the **Locks** activity group in the Navigator pane if it has not been expanded to display its activities and then select the **Queued Locks** activity.

The **Queue Locks** view is then displayed, loaded with data from the most-recent sample of queued locks.

Displaying the Statistics View

Select the **Statistics** command from the Selections menu to display the **System Statistics** view if it is not the current view. For details about the **System Statistics** view, see the Overview pane (that is, knowledge base information) at the lower right of the JADE Monitor window.

» To display the Statistics view, perform one of the following actions

- Select the **Statistics** command from the Selections menu.
- Click the **System Statistics** activity in the Navigator pane.

The **System Statistics** view is then displayed, loaded with data from the most-recent sample of system statistics.

Displaying the Users View

Select the **Users** command from the Selections menu to display the **Users** view if it is not the current view. For details about the **Users** view, see the Overview pane (that is, knowledge base information) at the lower right of the JADE Monitor window.

» To display the Users view, perform one of the following actions

- Select the **Users** command from the Selections menu.
- Click the **Users** activity in the Navigator pane.

The **Users** view is then displayed, loaded with data from the most-recent sample of users.

Displaying the Licence Information View

Select the **Licence Info** command from the Selections menu to display the **Licence Information** view if it is not the current view. For details about the **Licence Information** view, see the Overview pane (that is, knowledge base information) at the lower right of the JADE Monitor window.

» To display the Licence Information view

- Select the **Licence Info** command from the Selections menu.
- Click the **Licence Info** activity in the Navigator pane.

The **Licence Information** view is then displayed, loaded with data from the most-recent sample of licences.

Performing Help Menu Command Actions

The Help menu provides the commands listed in the following table, which enable you to access the standard Common User Access (CUA) help options.

Command	For details, see…
Index	Accessing the JADE Monitor User's Guide
About	Accessing JADE Monitor Release Information

Accessing the JADE Monitor User's Guide

The Help menu **Index** command enables you to open online help. The online help window displays a list of topics down the left, to enable you to select the online help topic for which you require assistance.

» To access the online help, perform one of the following actions

- Select the **Index** command from the Help menu
- Press F1

The *JADE Monitor User's Guide* (that is, **JadeMonitor.pdf**) is then displayed in Adobe Reader.

Use the functions available in JADE online help to find the required topics. For details, see "JADE HTML5 Online Help" or "JADE Product Information Library in Portable Document Format", in Chapter 2 of the *JADE Development Environment User's Guide*.

Accessing JADE Monitor Release Information

The Help menu **About** command enables you to access information about the JADE Monitor.

» To access the JADE Monitor information

- Select the **About** command from the Help menu

The JADE Monitor About box is then displayed, providing information that includes the database that is being monitored, the company to whom JADE is licensed, the server node operating system, and the JADE release version. This dialog is for display purposes only.

Performing Popup Menu Command Actions

Use popup (context) menus to quickly display the choices for your currently selected item.

» To access a popup menu, perform one of the following actions

- Right-click on the required item.
- Press SHIFT+F10 from a list box or table.

Popup menus, depending on the areas from which you access them (for example, the Navigator pane or from a specific view), can display the commands listed in the following table.

Command	For details, see…
Add Item	Adding an Item to or Removing it from a List
Add to / Remove from Periodic Sampling Group	Adding an Activity to or Removing it from a Periodic Sampling Group
Add Selected Class	Adding a Selected Class to a List
Add Selected Class Including Subclasses	Adding a Selected Class and its Subclasses to a List
Call Stack Summary	Displaying the Call Stack Summary of a Selected User
Copy	Copying Selected Data to the Clipboard
Copy Cell to Clipboard	Copying a Cell to the Clipboard
Copy Row to Clipboard	Copying a Row to the Clipboard
CSV Capture – Column Selection	Capturing Columns to a CSV File
■ Delta Values	Capturing a Column as Delta Values to a CSV File
■ Rate Values	Capturing a Column as Rate Values to a CSV File
■ Raw Values	Capturing a Column as Raw Values to a CSV File
CSV Capture – Row Selection	Capturing Rows to a CSV File
■ Add Selected Rows	Adding Selected Rows to a CSV Capture Group

Command	For details, see…
■ Clear All	Clearing All Rows from a CSV Capture Group or List
■ Remove Selected Rows	Removing Selected Rows from a CSV Capture Group
CSV Capture – Start	Starting or Stopping the Capture of Data to a CSV File
Deregister Process	Deregistering a Process
Dump All Nodes	Dumping All Nodes
Dump Selected Node	Dumping a Selected Node
Expand / Collapse Section	Expanding or Collapsing a Table Section
Find	Locating a Phrase in a Knowledge Base Article
Force Off User	Forcing Off a User from JADE
Force Off Node	Forcing Off a Node from JADE
Interrupt User	Interrupting Users
Log Sample to File	Logging a Sample to a File
Page Setup	Setting up Print Options
Print	Printing Knowledge Base Articles
Register / Deregister for Process Stats (Local)	Registering or Deregistering for Local Process Statistics
Register / Deregister for Process Stats (Remote)	Registering or Deregistering for Remote Process Statistics
Select All / Clear All	Selecting All Items or Clearing the Selection of All Items in a List
Show Timers	Displaying Timer Details for a Selected Process
Shutdown Selected Monitor Process	Shutting Down a Specific JADE Monitor Process
Transient Database File Analysis	Displaying a Transient Database File Analysis
Transient Database File Summary	Displaying a Transient Database File Summary
View Lock Details for Selected Class / Oid	Displaying Lock Details for a Selected Class or Oid
View Process on Users View	Displaying Process Ids on the Users View

Adding an Activity to or Removing it from a Periodic Sampling Group

To add an activity to the periodic sampling group

1. In the Navigator pane, right-click on the activity that you want to add to the group of activities that is periodically sampled.

   Use the CTRL or SHIFT key to select a group or range of activities, respectively.

2. Select the **Add to Periodic Sampling Group** command from the popup menu that is then displayed.

   This command is disabled if the activity is already included in the periodic sampling group or if the periodic sampling does not apply to that activity (for example, the **Capture** activity in the Node Sampling activity group).

The selected activity is then added to the periodic sampling group and highlighted in red in the Navigator pane.

To remove an activity from the periodic sampling group

1. In the Navigator pane, right-click on the activity that you want to remove from the group of activities that is periodically sampled.

   Use the CTRL or SHIFT key to select a group or range of activities, respectively.

2. Select the **Remove from Periodic Sampling Group** command from the popup menu that is then displayed.

   This command is disabled if the activity is not included in the periodic sampling group or if the periodic sampling does not apply to that activity (for example, the **Monitor Setup** activity in the General activity group).

The selected activity is then removed from the periodic sampling group, the check mark or check marks are then removed from the activity or activities in the **Periodically Sampled Items** list on the **Monitor Setup** view of the General activity group, and the red highlighting is removed in the Navigator pane.

Adding an Item to or Removing it from a List

To add an item to a list of selected items

1. Right-click on an item in a list of items that are available for selection (for example, the **Attributes Available for Extract** list box at the left of the **Analysis** view of the Node Sampling activity group). Use the CTRL or SHIFT key to select a group or range of items, respectively.

2. Select the **Add Item** command from the popup menu that is then displayed. Alternatively, double-click on the item.

The selected item is then moved to the list of selected items at the right of the view (for example, the **Selected Classes** list box on the **Capture** view of the Node Sampling activity group).

To remove an item from a list of selected items

1. Right-click on an item in a list of selected items (for example, the **Selected Classes** list box on the **Capture** view of the Node Sampling activity group). Use the CTRL or SHIFT key to select a group or range of items, respectively.

2. Select the **Remove Item** command from the popup menu that is then displayed. Alternatively, double-click on the item.

The selected item is then moved to the list of items available for selection at the left of the view (for example, the **Attributes Available for Extract** list box at the left of the **Analysis** view of the Node Sampling activity group).

Adding a Selected Class and its Subclasses to a List

To add a class and all of its subclasses to a list of selected classes

1. Right-click on the class in a list of classes that are available for selection (for example, the **ModelEntity** superclass in the **Classes** list box at the left of the **Capture** view of the Node Sampling activity group). Use the CTRL or SHIFT key to select a group or range of classes, respectively.

2. Select the **Add Selected Class (include subclasses)** command from the popup menu that is then displayed. This command is available only when the selected class is a superclass.

The selected class and all of its subclasses are then moved to the list of selected classes at the right of the view (for example, the **Selected Classes** list box on the **Capture** view of the Node Sampling activity group).

For details about removing a selected class from a list, see "Adding an Item to or Removing it from a List", earlier in this chapter.

Adding a Selected Class to a List

To add a class to a list of selected classes

1. Right-click on the class in a list of classes that are available for selection (for example, the **Classes** list box at the left of the **Capture** view of the Node Sampling activity group). Use the CTRL or SHIFT key to select a group or range of classes, respectively.
2. Select the **Add Selected Class** command from the popup menu that is then displayed. Alternatively, double-click on the class.

The selected class is then moved to the list of selected classes at the right of the view (for example, the **Selected Classes** list box on the **Capture** view of the Node Sampling activity group).

For details about removing a selected class from a list, see "Adding an Item to or Removing it from a List", earlier in this chapter.

Copying a Cell to the Clipboard

To copy a table cell of sampled data to the clipboard

1. Right-click on the cell whose table data you want to copy to the clipboard.
2. Select the **Copy Cell to Clipboard** command from the popup menu that is then displayed.

The sampled data in that cell is then copied to the clipboard, to enable you to paste it into another application.

Copying a Row to the Clipboard

To copy a table row of sampled data to the clipboard

1. Right-click on the row whose table data you want to copy to the clipboard. Use the CTRL or SHIFT key to select a group or range of rows, respectively. Alternatively, press CTRL+A to select all rows.
2. Select the **Copy Row to Clipboard** command from the popup menu that is then displayed.

   Alternatively, press CTRL+C to copy the selected rows.

The row of sampled data is then copied to the clipboard, to enable you to paste it into another application.

Capturing Columns to a CSV File

You can select whether sampled statistical data displayed in some views (for example, activity and cache statistics for the database displayed on the **Database Statistics** view) is written to a Comma-Separated Values (CSV) file as one of the following values. For details, see the following subsections.

- Raw data (the default of total values since the JADE database was opened)
- Delta values since the previous sample
- Computed rate-per-second values

You can then use an external program such as Excel to manipulate the captured data.

Sample data values of the selected type are recorded to a CSV file in the default JADE Monitor log directory in the following format.

```
jommon_capture-date_user-id_activity-name.csv
```

The following is an example of a CSV file of system statistics.

```
jommon_20140713_Wilbur_SystemStats.csv
```

For details about the default log file location, see "Log File Location", in Chapter 1.

To stop the capturing of sampled data when the timer is active or when the view is refreshed, right-click on a table row and then select the **CSV Capture - Stop** command.

Data capture is controlled on a sheet-by-sheet basis.

You can turn off the CSV capture of data for a specific activity while leaving it enabled for another. (For details, see "Starting or Stopping the Capture of Data to a CSV File", later in this chapter.)

The status line indicates the current capture status (that is, **DISABLED** or **ENABLED**).

For some views (for example, the **Node Statistics** view and the **Database Statistics** view) you must first select the row or rows whose columns you want to capture. For details, see "Adding Selected Rows to a CSV Capture Group" under "Capturing Rows to a CSV File", later in this chapter.

Capturing a Column as Delta Values to a CSV File

To capture a column of selected statistical data samples to a CSV file as delta values

1. Right-click on a row in the table that has **Value**, **Delta**, and **Rate** columns (for example, the **System Statistics** view).
2. Position the mouse over the **CSV Capture – Column Selection** command and then select the **Delta Values** command from the submenu that is displayed.
3. Right-click again on a table row and then select the **CSV Capture - Start** command. (The command then changes to the **CSV Capture - Stop** command.)

Capturing a Column as Rate Values to a CSV File

To capture a column of selected statistical data samples to a CSV file as rate values

1. Right-click on a row in the table that has **Value**, **Delta**, and **Rate** columns (for example, the **Node Statistics** view).
2. Position the mouse over the **CSV Capture – Column Selection** command and then select the **Rate Values** command from the submenu that is displayed.
3. Right-click again on a table row and then select the **CSV Capture - Start** command. (The command then changes to the **CSV Capture - Stop** command.)

Capturing a Column as Raw Values to a CSV File

To capture a column of selected statistical data samples to a CSV file as raw values

1. Right-click on a row in the table that has **Value**, **Delta**, and **Rate** columns (for example, the **Database Statistics** view).
2. Position the mouse over the **CSV Capture – Column Selection** command and then select the **Raw Values** command from the submenu that is displayed.
3. Right-click again on a table row and then select the **CSV Capture - Start** command. (The command then changes to the **CSV Capture - Stop** command.)

Capturing Rows to a CSV File

You can select the row or rows on a table of sampled data to capture to a CSV file. You can then use an external program such as Excel to manipulate the captured data.

By default, raw data of statistical samples is captured, unless you select the capture or delta or rates values. In addition, you can remove selected rows form the CSV capture group or you can clear all selected roes from the capture group.

Rows of data marked to be part of the CSV capture group are highlighted in the view table with a light-green background. The status line indicates the current capture status (that is, DISABLED or ENABLED).

Notes Data capture is controlled on a sheet-by-sheet basis. You can turn off the capture of data for a specific activity while leaving it enabled for another. (For details, see "Starting or Stopping the Capture of Data to a CSV File", later in this chapter.)

The column selection menu items dictate which columns are saved for the rows that have been marked for capture. (For details about the capturing of columns of raw, delta, and rate values of statistical data samples, see "Capturing Columns to a CSV File", earlier in this chapter.)

Sample data values of the selected type are recorded to a CSV file in the default JADE Monitor log directory in the following format.

```
jommon_capture-date_user-id_Objectactivity-name.csv
```

The following is an example of a CSV file of node statistics for analysis.

```
jommon_20140713_Wilbur_ObjectNodeStatsAnalysis.csv
```

For details about the default log file location, see "Log File Location", in Chapter 1.

To stop the capturing of sampled data when the timer is active or when the view is refreshed, right-click on a table row and then select the **CSV Capture - Stop** command.

For details, see the following subsections.

Adding Selected Rows to a CSV Capture Group

To add a row or rows to a CSV capture group for the current view

1. Right-click on a row in the table that you want to add to the capture group.
2. Position the mouse over the **CSV Capture – Row Selection** command and then select the **Add Selected Rows** command from the submenu that is displayed.

   Use the CTRL or SHIFT key to select a group or range of rows, respectively.
3. Right-click again on a table row and then select the **CSV Capture - Start** command. (The command then changes to the **CSV Capture - Stop** command.)

The values in all columns of the selected row or rows are then recorded to a CSV file when the view is refreshed or the active timer fires. For details about the format and location of this file, see "Capturing Rows to a CSV File", earlier in this chapter.

For details about removing selected rows from the capture group, see "Clearing All Rows from a CSV Capture Group or List" and "Removing Selected Rows from a CSV Capture Group", in the following sections.

Clearing All Rows from a CSV Capture Group or List

To clear all selected rows from a CSV capture group or list for the current view

1. Right-click on a row in the table whose selected rows or list box whose items you want to remove from the respective capture group or list.
2. Position the mouse over the **CSV Capture – Row Selection** command and then select the **Clear All** command from the submenu that is displayed. This command is disabled if no rows or list items are currently selected.

The selection highlighting is then removed from all rows and the capture status is removed from the status line. For details about adding rows to the capture group, see "Adding Selected Rows to a CSV Capture Group", in the previous section.

Removing Selected Rows from a CSV Capture Group

To remove a row or rows from a CSV capture group for the current view

1. Right-click on a row in the table that you want to remove from the capture group.

   Use the CTRL or SHIFT key to select a group or range of rows, respectively.
2. Position the mouse over the **CSV Capture – Row Selection** command and then select the **Remove Selected Rows** command from the submenu that is displayed. This command is disabled if no rows are currently selected.

The selection highlighting is then removed from each row selected for removal from the capture group. For details about adding rows to the capture group, see "Adding Selected Rows to a CSV Capture Group", in the previous section.

Copying Selected Data to the Clipboard

To copy text selected in the Overview pane to the clipboard

1. In the Overview pane at the lower right of the JADE Monitor window, select the text that you want to copy to the clipboard.
2. Right-click in the selection and then select the **Copy** command from the popup menu that is displayed.

The selected text is then copied to the clipboard, to enable you to paste it into another application (for example, **Notepad**).

For details about toggling the display of the knowledge base information, see "Toggling the Display of Knowledge Base Information", earlier in this chapter.

Deregistering a Process

You can deregister *all* local or remote processes for a node that were registered by selecting the **Register for Process Stats (Local)** or **Register for Process Stats (Remote)** popup menu command in the table on the **Setup Process Statistics** view instead of deregistering them individually.

The **Process Statistics Local** or **Process Statistics Remote** views enable you to identify a process that is causing a problem (for example, using excessive CPU or getting all of the objects).

You can deregister the recording of local or remote process statistics directly from the applicable view instead of deregistering them individually in the **Setup Process Statistics** view. For example, if you narrow down excessive CPU consumption of a local process to a specific application server, you can then select a number of processes in that node and go through them one at a time, ruling out those that are not causing the problem.

To deregister a process

1. Right-click on the process section row whose registered local or remote process statistics you want to deregister in the table on the **Process Statistics Local** or **Process Statistics Remote** view.
2. Select the **Deregister Process** command from the popup menu that is then displayed.

Tip If the view displays a lot of process statistics in the table, you can hide the display of statistics in each node if you do not want to have to scroll down to each node. For details, see "Expanding or Collapsing a Table Section", in the following section.

The **Y** value (that is, yes) is then removed from the respective **L** column (local process statistics) or the **R** column (remote process statistics) of users in the selected node on the **Setup Process Statistics** view.

Displaying a Transient Database File Analysis

To display the analysis of a transient database file, perform one of the following actions

- Select the **Transient File Analysis** activity in the Transient Object Activity group in the Navigator pane.
- Right-click on the a specific user or node in the table on the **Users** view or the process in the **Transient File Summary** view and then select the **Transient Database File Analysis** command from the popup menu that is displayed.

The **Transient File Analysis** view of the Transient Object Activity group is then displayed, providing an analysis of the transient database file of each user or process selected.

Note To analyze the transient database file, the target process is temporarily activated or interrupted. After the file has been analyzed, the process resumes from the point at which it was activated or interrupted.

Displaying a Transient Database File Summary

To display a transient database file summary, perform one of the following actions

- Select the **Transient File Summary** activity in the Transient Object Activity group in the Navigator pane.
- Right-click on the user in the table on the **Users** view (or a specific node, if you want to summarize transient database file details of all user processes in the node) and then select the **Transient Database File Summary** command from the popup menu that is displayed.

The **Transient File Analysis** view of the Transient Object Activity group is then displayed.

Note To summarize the transient database file, the target process is temporarily activated or interrupted. After the file has been summarized, the process resumes from the point at which it was activated or interrupted.

Displaying Lock Details for a Selected Class or Oid

To display lock details for a selected class or oid

1. Right-click on the class or oid in the table on the **Summary by Class**, **Summary by Oid**, or **Detail for Selected Class** view in the Lock Analysis activity group.
2. Select the **View Lock Details for Selected Class** or **View Lock Details for Selected Oid** command from the popup menu that is then displayed.

Note These commands are enabled only when lock data has been monitored.

The **Detail for Selected Class** or **Detail for Selected Oid** view of the Lock Analysis activity group is then displayed.

Displaying Process Ids in the Users View

To display process ids of a class or oid on the Users view

1. Right-click on the class or oid in the table on the **Summary by Class**, **Detail for Selected Class**, **Summary by Oid**, or **Detail for Selected Oid** view in the Lock Analysis activity group.
2. Select the **View Process Ids on Users View** command from the popup menu that is then displayed.

Note This command is enabled only when lock data has been monitored.

The **Users** view is then displayed highlighting the user who had acquired the selected lock; for example, to enable you to force off or interrupt the user. (For details, see "Forcing Off a User from JADE" or "Interrupting Users", earlier in this chapter.)

Displaying the Call Stack Summary of a Selected User

To display the call stack summary of a selected user, perform one of the following actions

- Select the **Call Stack Summary** activity in the Process Information activity group in the Navigator pane.
- Right-click on the user in the table on the **Users** view and then select the **Call Stack Summary** command from the popup menu that is displayed.

The **Call Stack Summary** view of the Process Information activity group is then displayed.

Displaying Timer Details for a Selected Process

To display timer details for a selected process, perform one of the following actions

- Select the **Timers** activity in the Process Information activity group in the Navigator pane.
- Right-click on the process in the table on the **Users** view or the **Setup Process Statistics** view in the Process Information activity group and then select the **Show Timers** command from the popup menu that is displayed.

The **Timers** view of the Process Information activity group is then displayed.

Dumping a Selected Node

To invoke a non-fatal process dump of a specific node

1. In the **Users** view, right-click on the node for which you require a process dump. Alternatively, use the CTRL or SHIFT key to select a group or range of nodes, respectively.
2. Select the **Dump Selected Node** command from the popup menu that is displayed. This command is disabled if no node is currently selected in the **Users** view.

A message box is then displayed, prompting you to click the **OK** button to confirm that you *do* want to initiate an operating system process dump for the selected node or nodes. (Alternatively, click the **Cancel** button to abandon the process dump.)

Dumping All Nodes

To invoke a near-simultaneous process dump of all nodes and the server node itself

1. In the **Users** view, right-click on a node.
2. Select the **Dump All Nodes** command from the popup menu that is displayed. This command is disabled if no node is currently selected in the **Users** view.

A message box is then displayed, prompting you to click the **OK** button to confirm that you *do* want to initiate an operating system process dump for all nodes. (Alternatively, click the **Cancel** button to abandon the process dump.)

Expanding or Collapsing a Table Section

Some tables are made up of data displayed in sections, with each section highlighted with a blue background; for example, persistent, transient, and remote transient cache details sections on the **Cache Performance** view.

Some sections can also contain groups of data; for example, individual nodes within cache performance detail sections. These groups, which are also highlighted with a blue background, can also be toggled to display or hide the data within a group; for example, if you want to view cache performance statistics for a specific node for a specific type of cache, you could collapse the other node groups and cache type sections.

To collapse a section or group of data in a table, perform one of the following actions

- Double-click anywhere in that section or group.
- Right-click in the section or group and then select the **Collapse Section** command from the popup menu that is displayed.

The section or group is then collapsed so that the rows of data in it are hidden and only the blue section or group row is displayed. The command in the popup menu then changes to the **Expand Section** command.

To expand a collapsed section or group in a table, perform one of the following actions

- Double-click anywhere in that section or group.
- Right-click in the section or group whose rows of data are hidden and then select the **Expand Section** command from the popup menu that is displayed.

The section or group is then expanded so that the rows of data in it are displayed. The command in the popup menu changes to the **Collapse Section** command.

Forcing Off a User from JADE

To force a user from a specific node

1. In the **Users** view, right-click on the user who you want to force off a specific node. Alternatively, use the CTRL or SHIFT key to select a group or range of users, respectively.
2. Select the **Force Off User** command from the popup menu that is displayed. This command is disabled if no user is currently selected in the **Users** view.

A message box is then displayed, prompting you to click the **OK** button to confirm that you *do* want to force the selected user or users from the node. (Alternatively, click the **Cancel** button to abandon the forcing off action and allow that user to continue using the JADE environment.)

You cannot force yourself off when you are the monitoring node itself (that is, this action has no effect if you select the **Force Off User** command when your own user id is the monitoring node).

Note When you force off a user, the **Application** class **finalize** method is not executed.

Forcing Off a Node from JADE

To force a node from JADE

1. In the **Users** view, right-click on the node that you want to force off JADE. Alternatively, use the CTRL or SHIFT key to select a group or range of nodes, respectively.
2. Select the **Force Off Node** command from the popup menu that is displayed. This command is disabled if no node is currently selected in the **Users** view.

A message box is then displayed, prompting you to click the **OK** button to confirm that you *do* want to force off the node and all users signed on to that node. (Alternatively, click the **Cancel** button to abandon the forcing off action and allow the user or users to continue monitoring.)

Interrupting Users

To interrupt one or more users

1. In the **Users** view, right-click on the user who you want to conditionally interrupt on a specific node. Alternatively, use the CTRL or SHIFT key to select a group or range of users, respectively.
2. Select the **Interrupt User** command from the popup menu that is displayed. This command is disabled if no user is currently selected in the **Users** view.

A message box is then displayed, prompting you to click the **OK** button to confirm that you *do* want to interrupt the selected user or users on the node. (Alternatively, click the **Cancel** button to abandon the interrupt action and allow the user or users to continue uninterrupted.)

You can use this command to interrupt a database operation. This action cancels (that is, performs a user abort action of) an in-progress file certify, file compact, file reindex, file freespace evaluate, file usage analysis, make file partitioned, and move instances database operations, and in-progress reorganizations.

Locating a Phrase in a Knowledge Base Article

To locate a phrase in a knowledge base article

1. In the Overview pane, right-click on text in the Overview or Discussion section.
2. Select the **Find** command from the popup menu that is displayed. This command is disabled if the caret is not positioned on text on the Overview pane.

   The Find dialog is then displayed.
3. In the **Find what** text box, specify the text that you want to locate in the knowledge base article.
4. If you want to search backwards through the contents of the Overview pane from the current caret position up to the beginning of the article, select the **Up** option button in the Search group box.

   By default, searching is performed from the current caret position to the end of the article; that is, the **Down** option button is selected.
5. If you want the exact match by case (where uppercase or lowercase is significant), check the **Match case** check box. A search is then performed for text with the same capitalization as the text in the **Find what** text box.

   By default, searching is case-insensitive; that is, this check box is unchecked.
6. If you want the search restricted to the full word specified in the **Find what** text box (for example, **Request** will not find **extractRequestStatistics**), check the **Whole words only** check box.

   A search is then performed for full words that match your specified search criteria. As this check box is not checked by default, the search will match on part of a word.
7. To find the next occurrence of the specified text, click the **Find Next** button.

   If JADE finds the text string that matches your specified options, the located text is then highlighted and focus is returned to the Overview pane. If JADE cannot find the text string that matches your specified options, a message box informs you that the search text was not found and waits for you to click the **OK** button in the message box before returning focus to the Overview pane.
8. When you do not want to locate any more text in the knowledge base article, click the **Cancel** button. Focus then returns to the Overview pane.

Logging a Sample to a File

You can toggle the logging of sampled data to a file for subsequent replay in another JADE Monitor work session to allow for the viewing of historical sampling information. For details, see "Loading Files in Historical Mode", earlier in this chapter.

In a JADE thin client environment, monitor logging is performed to directories that are accessible to the presentation client.

For details about specifying that an activity is output to a log file when periodically sampled or when you click the **Refresh** button, see setting up your JADE Monitor preferences, see "Setting Up the JADE Monitor", in Chapter 1.

In normal mode, activities that are selected for periodic sampling are displayed in the Navigator pane in a red font.

To log the data of a sampled activity to a file

1. In the Navigator pane, right-click on the activity whose sampled data you want to log for historical purposes.

   Alternatively, check the check box at the left of the activity in the **Samples Logged to File** list on the **Monitor Setup** view of the General activity group. (For details, see "Setting Up the JADE Monitor", in Chapter 1.)

2. Select the **Log Sample to File** command from the popup menu that is then displayed.

A check mark (✓) is then displayed at the left of the command in the popup menu and the check box of that activity in the **Samples Logged to File** list on the **Monitor Setup** view is checked.

Sampled activities are output to a log file in the default JADE Monitor log directory in the following format.

```
jommon_capture-date_user-id.log
```

The following is an example of a log file of a sampled activity.

```
jommon_20140716_Wilbur.log
```

For details about the default log file location, see "Log File Location", in Chapter 1.

Note The monitor log is primarily designed to be a machine-readable log. The timestamp on each line is generated using the **literalFormat** method of the **TimeStamp** primitive type.

To stop the logging of a sampled activity to a file

- Right-click on the activity in the Navigator pane and then select the **Log Sample to File** command from the popup menu that is displayed.

  Alternatively, uncheck the check box at the left of the activity in the **Samples Logged to File** list on the **Monitor Setup** view of the General activity group.

The check mark (✓) is then removed from the left of the command in the popup menu and the check box of that activity in the **Samples Logged to File** list on the **Monitor Setup** view is unchecked.

Printing Knowledge Base Articles

To print the knowledge base article for the current activity

1. In the Overview pane, right-click on text in the Overview or Discussion section.
2. Select the **Print** command from the popup menu that is displayed. This command is disabled if the caret is not positioned on text on the Overview pane.

   The common Print dialog is then displayed, to enable you to specify the printer name, the print range, the number of copies, and whether you also want to output the article to a file (if you select **Adobe PDF** in the **Name** combo box).
3. Click the **OK** button.

The knowledge base article is then output to the selected printer. For example, to your default printer or if you checked the **Print to File** check box and selected a value such as **Adobe PDF** or **Microsoft XPS Document Writer** in the **Name** text box, the common Save the file as dialog is then displayed, to enable you to select the name and location of the print output file.

Registering or Deregistering for Local Process Statistics

You can register or deregister the recording of local process statistics for a specific node user. (For details about deregistering all local processes for a node, see "Deregistering a Process", earlier in this chapter.)

» To register or deregister a user for local process statistics on a specific node

1. On the **Setup Process Statistics** view, right-click on the row of the user whose local process statistics for that node you want to register or deregister.
2. If a **Y** value (that is, yes) is displayed in the **L** column for that user (indicating that the user is registered for local process statistics), select the **Deregister for Process Stats (Local)** command from the popup menu that is then displayed.

   The **Y** value is then removed from the **L** column for that user.

   Conversely, if the user is not yet registered for local process statistics on that node, select the **Register for Process Stats (Local)** command from the popup menu. A **Y** value is then displayed in the **L** column for that user.
3. Repeat steps 1 and 2 of this instruction for each user whose local process statistics you want to register or deregister.

Tip If the view displays a lot of nodes and users in the table, you can hide the display of statistics in each node if you do not want to have to scroll down to each node. For details, see "Expanding or Collapsing a Table Section", earlier in this chapter.

Registering or Deregistering for Remote Process Statistics

You can register or deregister the recording of remote process statistics for a specific node user. (For details about deregistering all remote processes for a node, see "Deregistering a Process", earlier in this chapter.)

» To register or deregister a user for remote process statistics on a specific node

1. On the **Setup Process Statistics** view, right-click on the row of the user whose remote process statistics for that node you want to register or deregister.
2. If a **Y** value (that is, yes) is displayed in the **R** column for that user (indicating that the user is registered for remote process statistics), select the **Deregister for Process Stats (Remote)** command from the popup menu that is then displayed. The **Y** value is then removed from the **R** column for that user. Conversely, if the user is not yet registered for remote process statistics on that node, select the **Register for Process Stats (Remote)** command from the popup menu. A **Y** value (that is, yes) is then displayed in the **R** column for that user.
3. Repeat steps 1 and 2 of this instruction for each user whose remote process statistics you want to register or deregister.

Tip If the view displays a lot of nodes and users in the table, you can hide the display of statistics in each node if you do not want to have to scroll down to each node. For details, see "Expanding or Collapsing a Table Section", earlier in this chapter.

Selecting All Items or Clearing the Selection of All Items in a List

If you want to select most of the items in a list, you can select all items and then individually remove those you do not want included from the selection (for example, in the **Periodically Sampled Items** list on the **Monitor Setup** view). Conversely, if a majority of items in a list is selected and you want to include a few only, you can clear all items from selection and then individually select only those you want to include.

To select all items in a list

- Right-click in the list and then select the **Select All** command from the popup menu that is then displayed.

All items are then selected; for example, a check mark is displayed in all enabled (valid) check boxes in the **Samples Logged to File** list on the **Monitor Setup** view. For details about setting up the JADE Monitor, see "Setting Up the JADE Monitor", in Chapter 1.

To clear the selection of all items in a list

- Right-click in the list and then select the **Clear All** command from the popup menu that is then displayed.

All items are then removed from selection; for example, no check marks are displayed in any check boxes in the **Select Sample Types to Load** list on the **Load Historical Samples** view.

Setting up Print Options

To set up options when printing the knowledge base article for the current activity

1. In the Overview pane, right-click on text in the Overview or Discussion section.
2. Select the **Page Setup** command from the popup menu that is displayed. This command is disabled if the caret is not positioned on text on the Overview pane.

The common Print Setup dialog is then displayed, to enable you to specify your printer options. Any values that you specify in this dialog are retained for subsequent print requests. For details about using the Print Setup dialog, see "Setting Up Your Printer", in Chapter 3 of the *JADE Development Environment User's Guide*.

Shutting Down a Specific JADE Monitor Process

To shut down a specific JADE Monitor process for a user on a node

1. In the **Users** view, right-click on the row that has **JadeMonitor/JadeMonitorSchema** in the **Application** column of the node in which you want to shut down the JADE Monitor.

   Use the CTRL or SHIFT key to select a group or range of JADE Monitor users, respectively.
2. Select the **Shutdown Selected Monitor Process** command from the popup menu that is displayed. This command is disabled if the selected row is not running the JADE Monitor.

A message box is then displayed, prompting you to click the **OK** button to confirm that you *do* want to shut down the selected JADE Monitor process for that user or users on the node. (Alternatively, click the **Cancel** button to abandon the shut down action and allow the user or users to continue interrupted.)

Starting or Stopping the Capture of Data to a CSV File

Data captured to a CSV file for manipulation by an external program such as Excel is controlled on a sheet-by-sheet basis. You can turn off the capture of data for a specific activity while leaving it enabled for another. For details about selecting the data for capture to a CSV file, see "Capturing Columns to a CSV File" and "Capturing Rows to a CSV File", earlier in this chapter.

To start the capture of data to a CSV file when the view is refreshed or the active timer fires

1. In the table of data for the current activity, select the row whose data you want captured to file for subsequent manipulation by an external program.
2. Right-click on a table row and then select the **CSV Capture - Start** command. (A message box is displayed if you have not yet selected the item or items whose data you want captured.)

All sampled data values that were recorded since the previous sample are then recorded to a CSV file when the view is refreshed or the active timer fires and the command changes to the **CSV Capture - Stop** command.

To stop the capture of data to a CSV file when the view is refreshed or the active timer fires

- Right-click on the row of a table whose selected data is captured to a CSV file when the view is refreshed or the active timer fires and then select the **CSV Capture - Stop** command.

The capture of sampled data for selected items in that activity then stops and the command changes to the **CSV Capture – Start** command.

Maintaining Knowledge Base Information

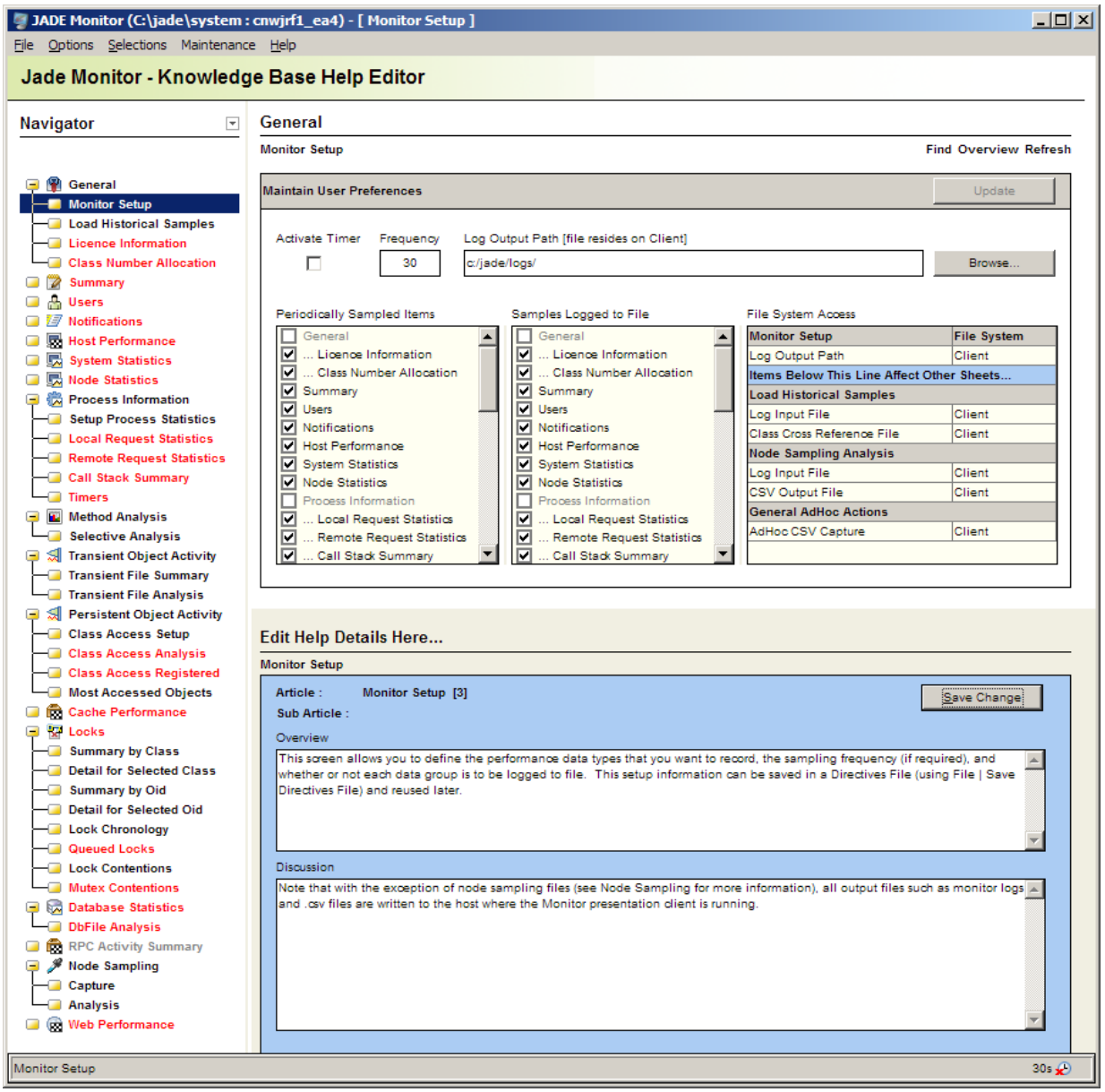
When JADE provides a new text file of knowledge base articles, you can run the JADE Monitor help editor to load the new file into your JADE database.

The following example is the command line to run the JADE Monitor help editor application.

```
jade.exe path=s:\jade\system ini=s:\jade\system\jade.ini schema=JadeMonitorSchema
app=JadeMonitorV2HelpEditor
```

Alternatively, you can create a shortcut to run this application from the JADE installation directory in which the JADE executables were installed (which defaults to the **bin** directory).

The JADE Monitor window is then opened in the Knowledge Base Help Editor view, shown in the following diagram.



Loading a new knowledge base articles file overwrites the existing knowledge base; it is not amended to it. For details about toggling the display of the knowledge base articles, see "Toggling the Display of Knowledge Base Information", earlier in this chapter.

Maintenance Menu

When you run the JADE Monitor help editor, the Maintenance menu is displayed in the JADE Monitor window.

The Maintenance menu provides the commands listed in the following table, which enable you to extract an existing knowledge base articles file and to load a new file of knowledge base articles provided by JADE Support.

Command	For details, see …
Extract Articles	Extracting an Existing Knowledge Base Information File
Load Articles	Loading a New Knowledge Base Information File

Extracting an Existing Knowledge Base Information File

You can extract your existing knowledge base articles file; for example, when JADE Support provides a new file and you want to retain the existing text file.

To extract the knowledge base articles file

1. Select the **Extract Articles** command from the Maintenance menu.

   The common Select Monitor KnowledgeBase Backup File dialog is then displayed, to enable you to specify your text file backup options.

2. In the **Look in** text box, enter the absolute path to which to extract the existing knowledge base articles text file or use standard facilities to browse to the location you require for the backed up information file.

3. In the **File name** text box, specify the file prefix that you require.

   Tip As a new knowledge base articles file overwrites an existing file of the same name in the target path, you may want to name the file to distinguish it from a new file (for example, by calling it **KnowledgeBase31032009.txt**).

4. Click the **Open** button.

5. If you specified a new file name or a difference absolute path, a message box is displayed stating that the file does not exist in the selected directory and prompting you to click the **Yes** button if you want to create the file.

   Alternatively, click the **No** button to abandon the backing up of the existing knowledge base file.

The Extract Complete message box is then displayed, stating that the knowledge base articles have been extracted to the specified location and file. Click the **OK** button to return focus to the JADE Monitor Knowledge Base Help Editor.

Loading a New Knowledge Base Information File

You can load a new text file of knowledge base articles supplied by JADE Support.

To load a new knowledge base information file

1. Select the **Load Articles** command from the Maintenance menu.

   The common Load Monitor KnowledgeBase From Backup File dialog is then displayed, to enable you to specify your load options.

2. In the **Look in** text box, enter the absolute path in which the new text file of knowledge base articles is located.

3. Select the text file of knowledge base articles that you want to load in the folder and file list in the middle of the dialog or specify the file name in the **File name** text box.

4. Click the **Open** button.

   A message box is then displayed, warning you that the load action will delete any existing knowledge base articles in your JADE database and prompting you to click the **Yes** button if you want to continue with the text file load process. (Alternatively, click the **No** button if you want to return to the to the JADE Monitor Knowledge Base Help Editor; for example, to extract the existing knowledge base information to another location or file name before initiating the knowledge base articles load process again.)

The Load Complete message box is then displayed, stating that the knowledge base articles have been loaded into your JADE database from the specified location and file.

Click the **OK** button to return focus to the JADE Monitor Knowledge Base Help Editor.