



Lotus Expeditor 6.1 Education

IBM® Lotus® Expeditor 6.1 Client for Desktop

Serviceability - Logging and IBM Support Assistant

Lotus software



@business on demand software

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Hello, and welcome to this presentation which explains the serviceability capabilities provided by the IBM Lotus Expeditor 6.1 Client for Desktop.

Goals

- Understand the serviceability support provided by IBM Lotus Expeditor 6.1 Client for Desktop

The goal of this presentation is to introduce you to the serviceability support provided by IBM Lotus Expeditor 6.1 Client for Desktop.

Agenda

- Logging
- IBM Support Assistant

First, we'll explain the logging support provided by the client platform, and then we'll discuss the IBM Support Assistant.

Section

Logging

Let's start with an explanation of the logging support.

Logging

- The Lotus Expeditor 6.1 logging framework leverages the JSR47 implementation provided with the Java™ runtime Environments (both JRE 1.5 and JCLDesktop).
- Multiple event logging interfaces are supported by the platform
 - ▶ JSR 47 logging and tracing (java.util.logging)
 - Used by many of the third party plug-ins
 - ▶ OSGi Log Service
 - Used by many of the IBM provided plug-ins (for example, Web Container)
 - ▶ Eclipse Platform Logging
 - Used by Eclipse plug-ins
 - ▶ Apache Commons Logging and Tracing
- Log Events consolidated along with stdout and stderr to a single log file
- By default, WARNING and SEVERE log events are written to the log file
- By default, INFO, DEBUG, TRACE, and so on are ignored

The Lotus Expeditor 6.1 logging framework leverages the JSR47 implementation provided with the runtime JREs, including both JRE 1.5 and JCLDesktop.

Multiple Logging interfaces are supported by the Lotus Expeditor Client for Desktop platform. These include Eclipse platform logging, OSGi log service, JSR 147 logging and Apache Commons Logging. All logs are consolidated along with stdout and stderr into a single log file.

Logging and tracing levels

- Logging
 - ▶ INFO
 - Normal operation of a component ("install complete")
 - ▶ WARNING
 - A problem has occurred but will not affect normal operations
 - ▶ SEVERE
 - A problem has occurred which will result in a significant or complete loss of some function
- Tracing
 - ▶ CONFIG
 - ▶ FINE
 - Use this level for significant events that explain the flow or state of the system when trying to understand or debug a problem.
 - ▶ FINER
 - More verbose than FINE
 - ▶ FINEST
 - Developer or debug tracing

The default level of log events which are written to the log file are WARNING and SEVERE. The other levels available are INFO, DEBUG and TRACE. By default, these three log events are ignored, but you can configure them to be written to the log file.

Log level mappings

- Mapping of OSGi Log Service to J2SE Log Level

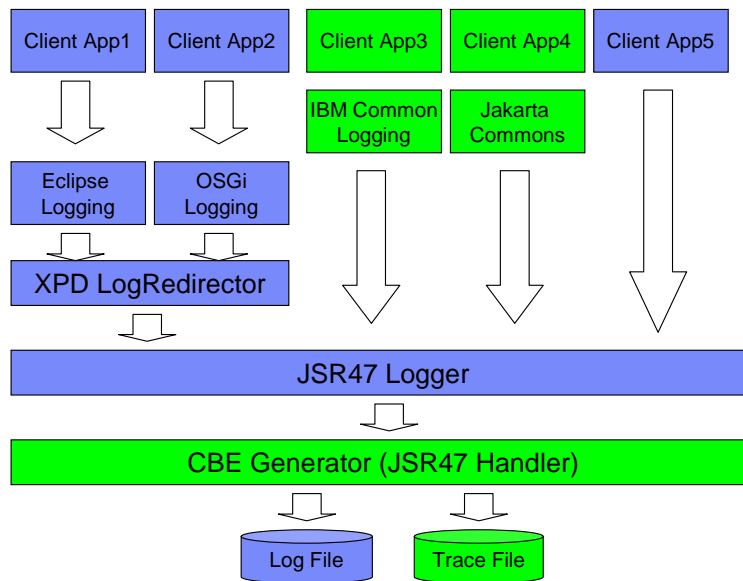
OSGi Log Level	J2SE Logging Level
ERROR	SEVERE
WARNING	WARNING
INFO	INFO
DEBUG	FINEST

- Mapping of Eclipse Log Service to J2SE Log Level

Eclipse Log Level	J2SE Logging Level
CANCEL	SEVERE
ERROR	SEVERE
WARNING	WARNING
INFO	INFO
OK	FINEST

This slide shows the mapping of Log levels between OSGi Log and J2SE Log levels, as well as the mapping for the Eclipse log service to J2SE Log level.

Log and trace event flow



This diagram gives a high-level overview of the logging system in Expeditor. Applications may choose to log using many different mechanisms, including OSGi logging, Eclipse logging, IBM Common logging, and Apache logging; however, all log messages are logged to one file with the consolidation at the JSR47 logger level.

While the JRE `java.util.logging` APIs are used for the actual persistence of messages to disk, it is important to note that there are several logging APIs available in the Expeditor Client platform. The client platform provides the following logging APIs: `java.util.logging` APIs, eclipse logging APIs, the OSGi LogService APIs, and Apache Commons logging APIs. The core logging framework of the Expeditor Client platform captures the messages from all of these APIs and federates them into one single log using the `java.util.logging` persistence and formatting framework. To simplify configuration of these federated messages, dynamically named loggers are created for the non-`java.util.logging` components when messages of the appropriate level are generated and logged. The named loggers are created with the bundle-symbolic name of the OSGi bundle that is logging the message as the name of the `java.util.logging` logger. This logger can be configured using the standard `java.util.logging` logger level configuration using the `rcpinstall.properties` file or dynamically using an OSGi console command. For more information, see the section [Dynamically adjusting the log level](#) in *Lotus Expeditor Troubleshooting and Support* documentation.

Configuring log level

▪ How do I change the log level?

- ▶ The LogManager is initialized from values in the file `<workspace>/config/rcpinstall.properties`.
- ▶ For example, if you want to see all log entries for your code in the package `com.ibm.rcp.mypackage`, add the following string:
 - `com.ibm.rcp.mypackage.level=FINEST`
- ▶ If you want to see less from other JSR47 loggers, change the default values in the `rcpinstall.properties` to `SEVERE`.

This slide describes how to change the log level. The logging level is initialized in the file `rcpinstall.properties`. To see all log entries, set the level to `FINEST`. To see only severe errors, set the log level to `SEVERE`.

Log file location

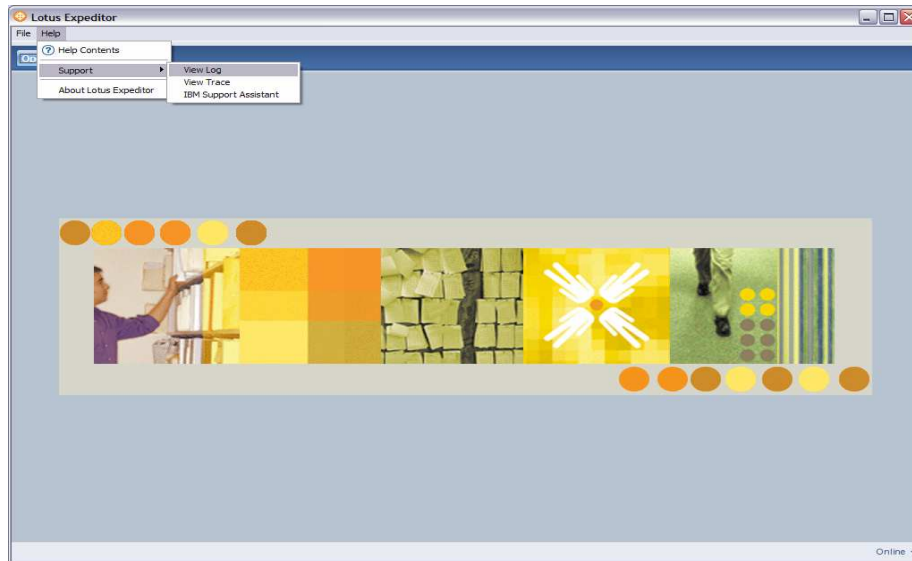
▪ Where are my logs?

- ▶ The system log can be found in <workspace>\logs\error-log-0.xml where n is a number, 0 is the most current log
- ▶ The system trace file can be found in <workspace>\logs\trace-log-0.xml where n is a number 0 for the most current log.

The location of the logs can be found in the user's workspace under the directory logs. The error logs are numbered, with 0 being the current log.

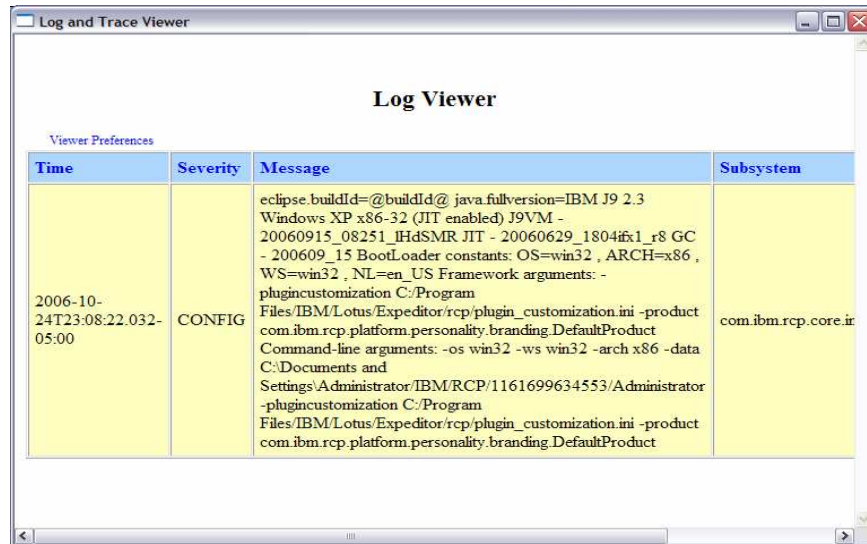
Trace files are located under the same directory.

Viewing the log



To view the Log, from the Expeditor Menu, click **Help**, then **Support**, then **View Log**.

Viewing the log file



The screenshot shows a window titled "Log and Trace Viewer" with a sub-window titled "Log Viewer". Below the title is a "Viewer Preferences" section. The main area contains a table with the following data:

Time	Severity	Message	Subsystem
2006-10-24T23:08:22.032-05:00	CONFIG	eclipse.buildId=@buildId@ java.fullversion=IBM J9 2.3 Windows XP x86-32 (JIT enabled) J9VM - 20060915_08251_IHdSMR JIT - 20060629_1804ifx1_r8 GC - 200609_15 BootLoader constants: OS=win32 , ARCH=x86 , WS=win32 , NL=en_US Framework arguments: - plugincustomization C:/Program Files/IBM/Lotus/Expeditor/rcp/plugin_customization.ini -product com.ibm.rcp.platform.personality.branding.DefaultProduct Command-line arguments: -os win32 -ws win32 -arch x86 -data C:\Documents and Settings/Administrator/IBM/RCP/1161699634553/Administrator -plugincustomization C:/Program Files/IBM/Lotus/Expeditor/rcp/plugin_customization.ini -product com.ibm.rcp.platform.personality.branding.DefaultProduct	com.ibm.rcp.core.ir

Use the Log File Viewer to view the system log file and interpret the data to assist in problem determination.

The slide shows a view of the Log using the Log Viewer. It shows the timestamp, the severity level, detailed message and the subsystem.

To change the sort order of entries in a column, click **Preferences**, and then choose the column you want to change and choose whether to sort in ascending or descending order.

Viewing the log file

- If the client is not running, but has been started at least once, you can double-click the **error-log-0.xml** file in the `<workspace>\logs` directory to open the log in a Web browser.
- When common base event logging is disabled, the log file is formatted as HTML instead of XML. By default, the file is called **error-log-0.html**. Double-click the file to open it in a Web browser. The file is also readable using a text editor; it contains a limited number of HTML tags.

If the client is not running, but has been started at least once, you can double-click the **error-log-0.xml** file in the `workspace\logs` directory to open the log in a Web browser.

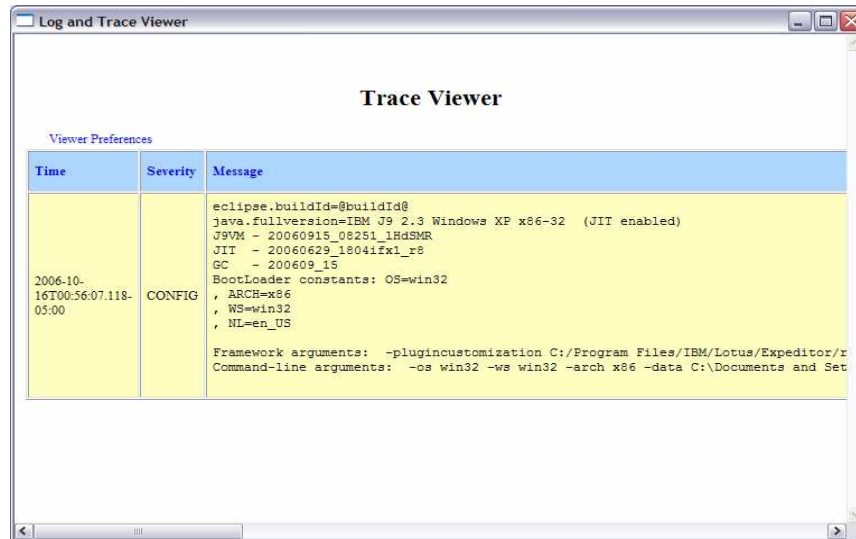
When common base event logging is disabled, the log file is formatted as HTML instead of XML. By default, the file is called **error-log-0.html**. Double-click the file to open it in a Web browser. The file is also readable using a text editor; it contains a limited number of HTML tags.

Tracing

- Tracing is integrated into the JSR47 logging framework as part of the standard log event message flow.
 - ▶ While some logging systems provide completely different APIs for logging and tracing, JSR47 only differentiates them by the severity.
 - ▶ SEVERE, WARNING and INFO in Expeditor are considered log messages, while all other levels CONFIG, FINE, FINER and FINEST are considered trace messages.
- Refer to *Developing Applications for Lotus Expeditor* for links to the other documentation.

Tracing is integrated into the JSR47 logging framework as part of the standard log event message flow. While some logging systems provide completely different APIs for logging and tracing, JSR47 only differentiates them by the severity. SEVERE, WARNING and INFO messages in Lotus Expeditor are considered log messages, while all other levels -- CONFIG, FINE, FINER and FINEST -- are considered trace messages.

Viewing the trace file



This slide shows a view of the Log using the Trace Viewer. It shows the timestamp, the severity level, detailed message, subsystem, source class name and thread ID.

Viewing the trace file

- If the client is not running, but has been started at least once, you can double-click the **trace-log-0.xml** file in the `<workspace>\logs` directory to open the trace file in a Web browser.
- When common base event logging is disabled, the trace file is formatted as HTML instead of XML. By default, the file is called **trace-log-0.html**. Double-click the file to open it in a Web browser. The file is also readable using a text editor; it contains a limited number of HTML tags.

If the client is not running, but has been started at least once, you can double-click the **trace-log-0.xml** file in the `workspace\logs` directory to open the trace file in a Web browser.

When common base event logging is disabled, the trace file is formatted as HTML instead of XML. By default, the file is called **trace-log-0.html**. Double-click the file to open it in a Web browser. The file is also readable using a text editor; it contains a limited number of HTML tags.

Section

IBM Support Assistant

Next, let's cover IBM Support Assistant.

IBM Support Assistant

- ISA is provided by the Expeditor platform to assist in problem resolution
- Expeditor includes ISA version 3
- Help links are provided for product documentation and education assistant

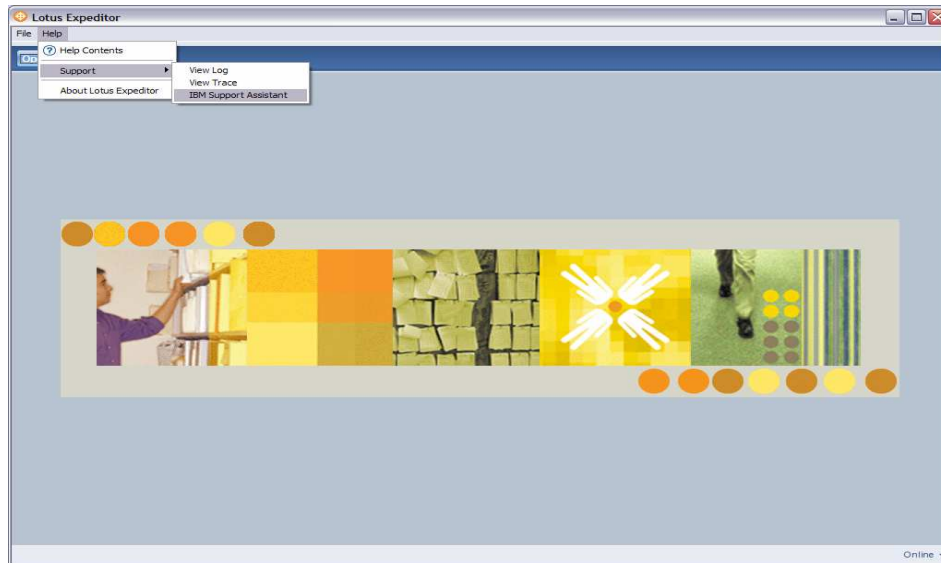
The IBM Support Assistant is a software serviceability workbench that helps answer questions and resolve problems that may arise while using IBM software products. The Expeditor Client platform includes ISA version 3. Included in the ISA site are links to product documentation and education assistant materials.

IBM Support Assistant process

- A customer opens a PMR and records the PMR number
- Customer Collects Data
- Submit the collector data

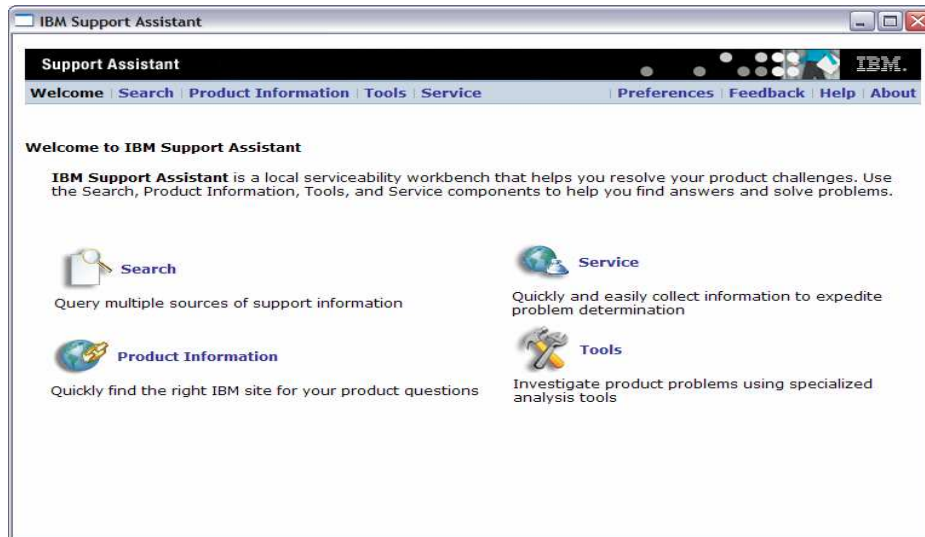
Use the IBM Support Assistant to collect system data. To open a PMR see the Release Notes.

IBM Support Assistant



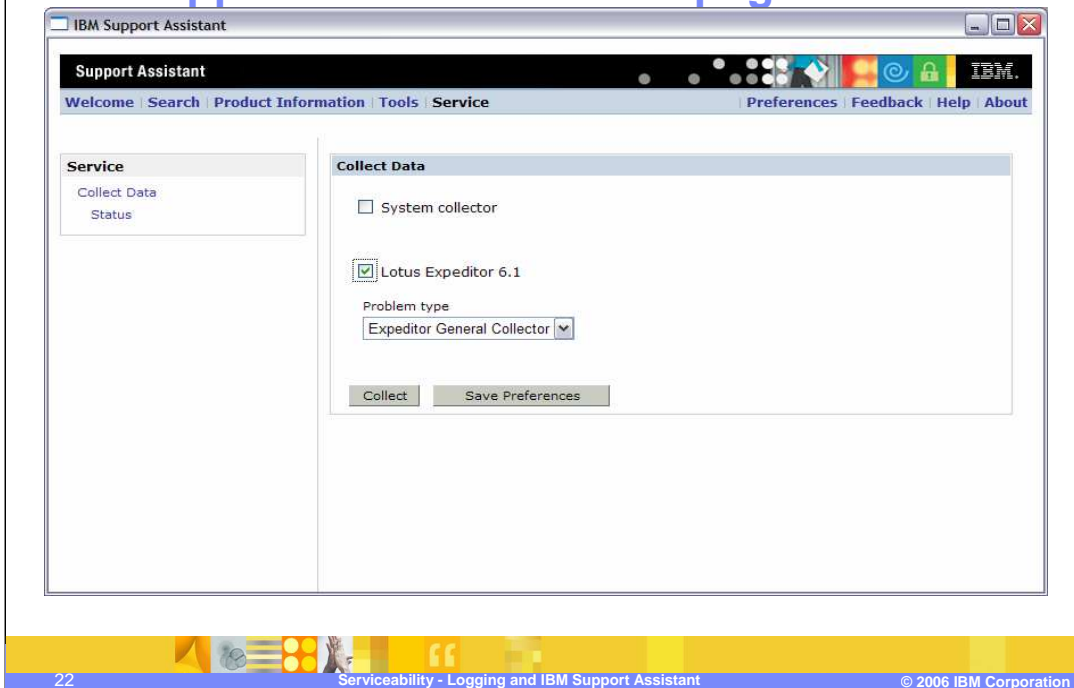
To access the IBM Support Assistant, from the Expeditor Menu click **Help**, then **Support** and then **IBM Support Assistant**.

IBM Support Assistant main page



The IBM Support Assistant main page is now displayed. On this page you have the choice of options, from accessing product information, to collecting service data to searching documentation. Select **Service** to collect data.

IBM Support Assistant service page



Here, you have the option of Collecting Data. To collect data, select **Lotus Expeditor 6.1** and then click **Collect**.

IBM Support Assistant service page

The screenshot displays the IBM Support Assistant interface. At the top, there is a navigation bar with links for Welcome, Search, Product Information, Tools, Service, Preferences, Feedback, Help, and About. The main content area is divided into two sections. On the left, under the 'Service' heading, there are links for 'Collect Data' and 'Status'. The right section, titled 'Data collection is completed.', contains a message: 'Please check the following to see the generated collector jar file (will not always be available):' followed by a bullet point listing the file path: 'C:\Documents and Settings\Administrator\IBM\RCP\1159903484\Administrator\saCollector_SSC4TNF_6_1_061003_1457_4566.jar'. Below this, a 'Data collection progress' section shows a log of system information and actions taken, including OS details, file gathering, and a completion message dated [2006.10.03-14.57.54.215CDT].

Service

- Collect Data
- Status

Data collection is completed.

Please check the following to see the generated collector jar file (will not always be available):

- C:\Documents and Settings\Administrator\IBM\RCP\1159903484\Administrator\saCollector_SSC4TNF_6_1_061003_1457_4566.jar

Data collection progress

```
OS is: Windows XP
os.lists = Windows 2003,Windows 2003 (unknown),Windows XP,Windows XP
(unknown),Windows 2000,Windows 2000
(unknown),Linux,OS/400,AIX,SunOS,Solaris,Windows Server 2003,HP-UX,z/OS
os.version = 5.1 build 2600 Service Pack 2
isValidWindows: true
OSNameIncluded: true
Gathering log files.
Gathering configuration files.
Gathering base installation files.
Gathering runtime data.

[2006.10.03-14.57.54.215CDT] Step 1: Indicating that this data collection h
been completed

The collection has completed successfully.
```

Here is a screen sample showing Data Collection has completed.

IBM Support Assistant collector

- Collector creates jar file in current workspace
- Collects the following information items
 - ▶ Local OS information
 - network, system, installed programs
 - ▶ Platform information
 - rcinstall.properties
 - Eclipse configuration information
 - Log and Trace files
 - .config directory contents
 - ▶ Install directory contents
 - Rcplauncher.properties
 - Plugin_customization.ini
 - Deploy subdirectory

The IBM Support Assistant provides a collector tool that gathers general information, such as operating system and registry information, and can automatically enable tracing that will be helpful to IBM support as part of the data gathering process.

Collecting data when the client will not start

- This topic describes the steps you must perform to collect system and log data on a machine on which the client will not start.
- Navigate to the rcp subdirectory of the Expeditor Client installation directory
- Execute the following file to start the collector:
 - ▶ Windows®: startcollector.bat
 - ▶ Linux®: ./startcollector.sh
- The collector gathers the problem determination data into a .zip file

This slide describes the steps you must perform to collect system and log data on a machine on which the client will not start.

To collect system and log data manually, perform the following steps: First, navigate to the rcp subdirectory of the Lotus Expeditor Client installation directory. By default, the client is installed to the following directory: C:\Program Files\IBM\Lotus\Expeditor, so you would navigate to: C:\Program Files\IBM\Lotus\Expeditor\rcp.

Then, execute the following file to start the collector:

- On Windows, execute startcollector.bat
- On Linux, execute ./startcollector.sh

The collector gathers the problem determination data in a ZIP file. The collector will ask you where you want to store the ZIP file. It is useful to include a date in the ZIP file name so you will know when the collector was last run.

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