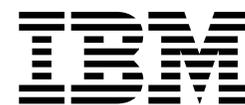


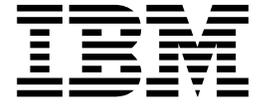
IBM Host Access Transformation Services



Troubleshooting

Version 96

IBM Host Access Transformation Services



Troubleshooting

Version 96

Note:

Before using this information and the product it supports, read the information in "Notices," on page 15.

Tenth Edition (November 2017)

© Copyright IBM Corporation 2003, 2017.

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Contents

Chapter 1. Troubleshooting and support.	1
Chapter 2. Troubleshooting overview	3
Recording the symptoms of the problem	3
Recreating the problem	3
Eliminating possible causes	4
Chapter 3. Searching for information	5
Search the IBM Knowledge Center	5
Search the Internet	5
Use the IBM Support Assistant	6
Chapter 4. Getting fixes	7
Chapter 5. Contacting IBM Software Support.	9
Determine the business impact of your problem	9
Describe your problem and gather background information	10
Gathering problem determination information.	10
Displaying the Java Console.	10
Displaying the Java Console in Internet Explorer	11
Displaying the Java Console when running the Java 2 plug-in	11
Worksheet for preparing to call IBM Support	11
Description of the problem and the environment	11
Submit your problem to IBM Software Support	13
Appendix. Notices.	15
Trademarks	16

Chapter 1. Troubleshooting and support

| Welcome to IBM® Host Access Transformation Services (HATS) Troubleshooting
| guide. This guide provides information to assist you with problems you might
| experience, including problems with product installation, building a project, and
| deploying and executing an application in a production environment. This guide is
| designed to serve as a self-help tool to help you resolve your problem without the
| need to engage IBM support. It includes overview information about how to
| troubleshoot a problem with HATS and instructions for searching for information,
| downloading fixes, and getting technical support. If you do have to call IBM
| support, this guide provides the information you need to help your IBM service
| representative better diagnose and resolve your problem.

This book is not intended for use with the WebFacing feature of the HATS. For information on troubleshooting WebFacing problems, see the product help after WebFacing is installed.

Chapter 2. Troubleshooting overview

Troubleshooting is the process of finding and eliminating the cause of a problem. Whenever you have a problem with HATS, the troubleshooting process begins by recording the issue as it occurred. A basic troubleshooting strategy at a high level involves:

1. "Recording the symptoms of the problem"
2. "Recreating the problem"
3. "Eliminating possible causes" on page 4

Recording the symptoms of the problem

Depending on the type of problem you have, you might receive a message that indicates something is wrong. Always record the error message that you see. As simple as this sounds, error messages sometimes contain cryptic codes that might make more sense as you investigate your problem further. You might also receive multiple error messages that look similar but have subtle differences. By recording the details of each one, you can learn more about where your problem exists.

The HATS Messages book provides explanations and user actions for error messages. Refer to the *HATS Messages* book to access error code information.

Recreating the problem

Think back to what steps you took that led you to the problem. Try those steps again to see if you can easily determine a repeatable sequence of events to recreate the error. If you can identify a repeatable test case, you will have an easier time determining what solutions are necessary to correct the problem. Ask these questions of yourself when approaching any error involving HATS.

- How did you first notice the problem?
- Did you do anything different that made you notice the problem?
- Is the process that is causing the problem a new procedure, or has it worked successfully before?
- If this worked before what has changed? The change can refer to any type of change made to the system, ranging from adding new hardware or software, to configuration changes to existing software.
- What was the first symptom of the problem you witnessed?
- Were there other symptoms occurring around that point of time?
- Does the same problem occur elsewhere?
- Is only one machine experiencing the problem or are multiple machines experiencing the same problem?
- What messages are being generated that could indicate what the problem is?

Eliminating possible causes

To save time and narrow the scope of your problem, eliminate components that are not causing the problem.

Some tools you can use are:

- The host terminal:
 - Step through the host screens to verify navigation through the host application is still as you expect.
 - Use the **Host Screen Preview** tab to see how each screen will look in a production environment.
 - Play your macros to ensure they still recognize the host screens and correctly navigate through the host application.
 - For more information, see the section on using the host terminal in *Getting Started*. Also see the chapter on macros and the host terminal in the *HATS User's and Administrator's Guide*.
- The project settings editor:
 - Open the project editor to confirm the project-wide settings.
 - Use the **Events** tab to ensure that the order of screen events is not causing the problem. Maybe a new screen event you just added is not being recognized because of another event higher in the priority list. Using the check boxes, you can enable and disable events to see what effects they have on your running application.
 - For information about modifying a HATS project see the *HATS User's and Administrator's Guide*
- The screen event editor:
 - Screen Customizations display the **Screen Recognition Criteria** tab while the Screen Combinations display **Begin Screen** and **End Screen** tabs. Use the appropriate tab to check that the screen recognition criteria are still being met for your screen events based on any changes that might have occurred on the host screen.
 - Use the **Actions** tab to check the actions to perform when the screen event is recognized. Actions can be enabled or disabled. To enable an action, select the check box. To disable an action, clear the check box.
 - Use the **Global Rules** and **Text Replacement** tabs to confirm your settings based on any changes that might have occurred on the host screen.
 - For more information, see the information about using the screen event editor in the *HATS User's and Administrator's Guide*.
- The display terminal:
 - Use the display terminal while testing your project in the Rational® SDP internal test environment to watch your project interact with the host. Seeing what is happening during run time can be very helpful in debugging macro and screen recognition problems.
 - For more information, see the information about previewing your project in *Getting Started*.

These tools are just some of the methods to use to help determine what might be the cause of your problem. For more information, search knowledge bases to find topics related to your problem, to determine if anyone else has experienced the problem, and to learn if a fix is available. See Chapter 3, "Searching for information" and Chapter 4, "Getting fixes" for more information.

Chapter 3. Searching for information

If you have a problem with HATS, you want it resolved quickly. Begin by searching the available knowledge bases to determine whether the resolution to your problem is already documented.

1. "Search the IBM Knowledge Center."
2. "Search the Internet."
3. "Use the IBM Support Assistant" on page 6.

Search the IBM Knowledge Center

IBM provides extensive documentation on IBM Knowledge Center at http://www.ibm.com/support/knowledgecenter/SSXKAY_9.6.0. An information center can also be installed on your local machine or on a local intranet.

The Knowledge Center contains documentation from the HATS release notes and all of the books in HATS library. HATS frequently asked questions, API reference (Javadoc), and tutorials are included as well as links to Web sites for HATS supported hardware and software requirements, support site, service updates, technotes, education, and more. You can use the Knowledge Center to query concepts and reference information as well as detailed instructions for completing tasks.

Search the Internet

In addition to link to the IBM Knowledge Center, other links that might help you resolve your problem are as follows:

- HATS Web site
<http://www.ibm.com/software/products/us/en/rhats>
- HATS support page
http://www.ibm.com/support/entry/portal/overview/software/rational/rational_host_access_transformation_services
The HATS support page also provides links to the following types of documentation:
 - Fixes
 - Downloads
 - Flashes
 - Technotes
 - Documentation
 - Problem Reports
 - Training and certification
- HATS HotSpot
<https://www.ibm.com/developerworks/mydeveloperworks/groups/service/html/communityview?communityUuid=2ce1fd8d-d706-4afd-b9ef-9000ad21218d>
The HATS HotSpot includes the following types of information and more:
 - Blogs
 - Forums

- Resource library
- IBM developerWorks®
<http://www.ibm.com/developerworks>
- Internet search engines (for example Google)
<http://www.google.com>

Use the IBM Support Assistant

IBM Support Assistant (ISA) is a free local software serviceability workbench that helps you resolve questions and problems with IBM software products.

HATS provides a plug-in for ISA V4.x. The HATS plug-in provides links to the HATS Knowledge Center, home page, HotSpot, support site, and other sites. You can search these sites for information that might help you resolve a problem.

ISA can be downloaded from <http://www.ibm.com/software/support/isa>. After downloading ISA, unpack (that is, unzip) the files. Then, run the ISA installation program.

To install the HATS ISA plug-in:

1. Start ISA.
2. Click **Update > Find new > Product Add-ons** from the menu bar.
3. The Find New Product Add-ons wizard is displayed.
4. From the Product Add-ons to Install page, expand **Rational**.
5. Find and select IBM Host Access Transformation Services V9.6 in the list.
6. Click **Next**.
7. On the Tools Add-ons to Install page, click **Next**.
8. On the Licenses of Add-ons to Install page, select **I accept the terms in the license agreements**, click **Next**.
9. On the Summary page, click **Install**.

Chapter 4. Getting fixes

A product fix might be available to resolve your problem. To determine what fixes are available, go to the HATS support site at http://www.ibm.com/support/entry/portal/overview/software/rational/rational_host_access_transformation_services to look for support downloads.

You can receive notifications about fixes and other news about IBM products. For information about subscribing for notifications, see "About My notification" at <http://www.ibm.com/support/docview.wss?uid=swg21460904>.

You can also start the IBM Installation Manager and click **Update** to find available fixpacks. For more on how this is done, see Updating the HATS Toolkit installation in the *HATS Getting Started* book.

For information about types of fixes, see the Software Support Handbook at <http://www14.software.ibm.com/webapp/set2/sas/f/handbook/home.html>. For search help, visit the IBM Software Support Web site at [http://www.ibm.com/support/entry/portal/Overview/Software/Software_support_\(general\)](http://www.ibm.com/support/entry/portal/Overview/Software/Software_support_(general)).

Chapter 5. Contacting IBM Software Support

IBM Software Support provides assistance with product defects.

Before contacting IBM Software Support, your company must have an active IBM software maintenance contract, and you must be authorized to submit problems to IBM. The type of software maintenance contract that you need depends on the type of product you have:

- For HATS, enroll in Passport Advantage® in one of the following ways:
 - **Online:** Go to the Passport Advantage Web page at <http://www.ibm.com/software/lotus/passportadvantage/> and click **How to Enroll**.
 - **By phone:** For the phone number to call in your country, go to the contacts page of the Software Support Handbook at <http://www14.software.ibm.com/webapp/set2/sas/f/handbook/contacts.html> and under Worldwide contacts click the name of your geographic region.
- You might purchase a software maintenance agreement by working directly with an IBM sales representative or an IBM business partner. For more information go to the "Support for IBM Systems" web page at <http://www.ibm.com/systems/support/>.

If you are not sure what type of software maintenance contract you need, call 1-800-IBMSERV (1-800-426-7378) in the United States or, from other countries, go to the contacts page of the Software Support Handbook at <http://www14.software.ibm.com/webapp/set2/sas/f/handbook/contacts.html> and under Worldwide contacts click the name of your geographic region for phone numbers of people who provide support for your location.

Follow the steps in this topic to contact IBM Software Support:

1. "Determine the business impact of your problem"
2. "Describe your problem and gather background information" on page 10
3. "Submit your problem to IBM Software Support" on page 13

Determine the business impact of your problem

When you report a problem to IBM, you will be asked to supply a severity level. Therefore, you need to understand and assess the business impact of the problem you are reporting. Use the following criteria:

Severity	Business impact
1	Critical: You are unable to use the program, resulting in a critical impact on operations. This condition requires an immediate solution.
2	Significant: The program is usable but is severely limited.
3	Some: The program is usable with less significant features (not critical to operations) unavailable.
4	Minimal: The problem causes little impact on operations, or a reasonable circumvention to the problem has been implemented.

Describe your problem and gather background information

When explaining a problem to IBM, be as specific as possible. Include all relevant background information so that IBM Software Support specialists can help you solve the problem efficiently. To save time, know the answers to these questions:

- What software versions were you running when the problem occurred?
- Do you have logs, traces, and messages that are related to the problem symptoms? IBM Software Support is likely to ask for this information.
- Can the problem be recreated? If so, what steps led to the failure?
- Have any changes been made to the system? For example, hardware, operating system, networking software, and so on.
- Are you currently using a workaround for this problem? If so, please be prepared to explain it when you report the problem.

Gathering problem determination information

You might require assistance when determining the cause of HATS-related problems. To gather general information for HATS support personnel, on the HATS Toolkit menu bar, click **HATS > Gather Problem Determination Information** to launch the wizard.

When the wizard opens, all projects are listed within the window. You can select any combination of project types. Select the projects you want to include for diagnosis by selecting the check box beside them. Specify the location of the zip file you want to use to capture your information, then click **Finish**. The information contained in the zip file assists HATS support personnel in determining the cause of your problem.

For rich-client applications, click **File > Preferences... > HATS > Troubleshooting** from the menu bar. The Troubleshooting window opens and you can select tracing and logging settings. Click **Gather** to gather information required for diagnosing a problem. The contents of the selected applications, the runtime extension plug-in, and the .log file are copied into a zip file.

Note: For more information about tracing and logging settings for rich-client applications, see Troubleshooting preferences in the *HATS User's and Administrator's Guide*.

More specific information might be required for certain problem scenarios. To see what specific information to gather, go to the HATS support site at http://www.ibm.com/support/entry/portal/overview/software/rational/rational_host_access_transformation_services. In the **Search support and downloads** edit box enter `mustgather` and click the arrow button. Read the technote titled *MustGather: Read first for all Rational Host Access Transformation Services products*. Then scan the other technotes for those that might be related to your problem scenario.

Displaying the Java Console

When using a Java™-enabled browser the Java Console or Java Log displays information about Java events. The Java console is useful when asynchronous update is configured. HATS messages and trace data can be shown here.

- “Displaying the Java Console in Internet Explorer” on page 11
- “Displaying the Java Console when running the Java 2 plug-in” on page 11

Displaying the Java Console in Internet Explorer

Display options for Internet Explorer vary according to how it is configured. The following are suggested ways to display the Java Console but they may not apply to your browser.

To display the Java Console while using the Internet Explorer browser, do the following:

1. Select **Tools > Internet Options** from the main menu bar.
2. Click the **Advanced** tab.
3. Scroll down to the **Microsoft VM** section and click in the checkbox next to **Java console enabled** to enable the Java Console. (This requires you to restart the browser.)
4. Click **Apply**.
5. Click **OK**.
6. Stop Internet Explorer as well as any other open instances of the browser and restart it.
7. Select **View > Java Console** from Internet Explorer's main menu to view the Java Console. The Java Console window appears.

If Internet Explorer browser does not provide the **Microsoft VM** selection on the **Advanced** tab, do the following:

1. Select **Tools > Sun Java Console** option.
2. The Java Console window appears.

Displaying the Java Console when running the Java 2 plug-in

To display the Java Console when running the Java 2 plug-in, click the **Java Console** option from the browser's **Tools** menu. Older versions of the plug-in might require the selection to be made in the plug-in's control panel.

Worksheet for preparing to call IBM Support

If you determine that you need IBM assistance to solve a problem with HATS, then complete this IBM support checklist for HATS. The following is a list of the information that the IBM Support Center might need to help diagnose your problem. You can print a copy of this list, and then fill in the blanks, before contacting IBM for support.

Description of the problem and the environment

1. Problem Summary:

2. HATS version, release, and refresh pack level:

To determine the HATS version, do the following:

- Select **Help** on your *IBM Rational Software Delivery Platform* toolbar.
- Select **About IBM Rational Software Delivery Platform**.
- In the *About IBM Rational Software Delivery Platform* window, click **Installation Details**.

19. Does the problem occur regularly _____ or only occasionally? _____
 20. If the problem occurs when the browser client is connected to a WebSphere Application Server, does it also occur when you use Run On Server in the HATS Toolkit? Yes _____ No _____
 21. Are your HATS connections configured to use Web Express Logon? Yes ____.
No ____.
If Yes:
Network Security Plugin: _____
Credential Mapper Plugin: _____
- Question 22 through 26 apply to HATS rich client applications:**
22. Client operating system and version: _____
 23. Rich client platform and versions (for example, Eclipse Rich Client Platform V3.7, Lotus Notes® V8.5.3, or Lotus® Expeditor Client V6.2.3):

To determine the version, click **Help>About** from within the client environment.
 24. How was the application installed into the client environment (for example, installed using Eclipse Update Site, installed using a Lotus Notes widget, provisioned from Lotus Expeditor Server)?

 25. Does the same problem occur when the application is run on a local test environment (that is, from within the development environment)? Yes _____
No _____
 26. Are there any entries in your HATS log or trace files? Yes _____. No _____.

Submit your problem to IBM Software Support

You can submit your problem in one of two ways:

- **Web site:** Go to the "Service requests & PMRs" web page at <https://www.ibm.com/support/servicerequest/Home.action>. Enter your information into the appropriate problem submission tool.
- **Phone:** For the phone number to call in your country, go to the contacts page of the Software Support Handbook at <http://www14.software.ibm.com/webapp/set2/sas/f/handbook/contacts.html> and under Worldwide contacts click the name of your geographic region.

If the problem you submit is for a software defect or for missing or inaccurate documentation, IBM Software Support will create an Authorized Program Analysis Report (APAR). The APAR describes the problem in detail. Whenever possible, IBM Software Support will provide a workaround for you to implement until the APAR is resolved and a fix is delivered.

IBM publishes resolved APARs on the IBM product support Web pages daily, so that other users who experience the same problem can benefit from the same resolutions. You can search for HATS related APARs on the HATS support site at http://www.ibm.com/support/entry/portal/overview/software/rational/rational_host_access_transformation_services.

Appendix. Notices

This information was developed for products and services offered in the U.S.A. IBM might not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service might be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right might be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM might have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing
Legal and Intellectual Property Law
IBM Japan, Ltd.
19-21, Nihonbashi-Hakozakicho, Chuo-ku
Tokyo 103-8510, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement might not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM might make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM might use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

Intellectual Property Dept. for Rational Software
IBM Corporation
5 Technology Park Drive
Westford, MA 01886
U.S.A.

Such information might be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this information and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement, or any equivalent agreement between us.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrates programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample programs are provided "AS IS", without warranty of any kind. IBM shall not be liable for any damages arising out of your use of the sample programs.

If you are viewing this information softcopy, the photographs and color illustrations might not appear.

Trademarks

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at www.ibm.com/legal/copytrade.shtml.

Microsoft and Windows are trademarks of Microsoft Corporation in the United States, other countries, or both.

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.





Printed in USA

GC27-5449-02

