RUMBA®

*System
Administrator Kit*

RUMBA 8.0 Tools Guide

MICRO FOCUS®

Contents

1   Diagnostic Tools

The diagnostic tools available in the RUMBA Administrative Tools folder provide you with a set of powerful and cost-effective features that are designed to boost your productivity. This guide gives you overviews and tips for the RUMBA Trace Console.

RUMBA Trace Console

The RUMBA Trace Console is a valuable tool that combines several trace options in a common utility. When you are troubleshooting a problem for an end user, you can ask the user to trace and record communication sessions with the RUMBA Trace Console. Later, you can selectively play back the binary data file to troubleshoot the problem. This chapter discusses the following aspects of working with the RUMBA Trace Console:

- Application program interface options
- Difficult troubleshooting tasks
- Display software code version
- Playback display and printer data stream trace

By default, all application program interfaces (APIs) are selected for trace, but you can limit trace data and select only the APIs you want to trace. There are two guidelines for this decision:

- Trace options can have an impact on system performance, so you may want to use the trace APIs as filters when isolating a known problem

- When diagnosing a problem, it often requires many types of trace information to effectively investigate the system state. You may want to select all APIs (default) to capture all available information and direct output to an unformatted file to send to Micro Focus Technical Support.

▶ **For more information**

Help Topic: RUMBA Utilities > RUMBA Trace Console

Application program interface options

The RUMBA Trace Console gives you the following API options:

- Mainframe Display Data Stream (DSA)

- Mainframe Printer Data Stream (DSA)

- AS/400 Display Data Stream (DSA)

- AS/400 Printer Data Stream (DSA)

- UNIX/HP Display Data Stream (DSA)

- SNA Communications (includes APPC, CPI-C, LU 6.2, ACSSVC, and SNA)

- Micro Focus EHNAPPC (a standard AS/400 interface for APPC)

- Link Layer Communications for all network architecture drivers

- RUMBA Display APIs (includes DDE, EHLLAPI, and WinHLLAPI)

- Host System APIs (includes Submit Remote Command)

- RUMBA Event Viewer

▶ **Note**

To view trace data while running the trace, be sure that the Display option is checked on the Options menu. This is the default setting.

Be aware that only 1000 lines of the most recent data is displayed. Also, note that the formatted file is distinct from the display file and carries more data. When large amounts of trace data are being saved, a larger trace buffer size tends to prevent trace buffer overruns. The default size is 8 MB.

Difficult troubleshooting tasks

When there is a network problem, but you do not know what to trace, you can trace all APIs and save the data in a binary file. Later, this data can be replayed, and you or your support engineers can analyze the sequence of data from API-to-API. With this sequence in hand, you can isolate where the problem is occurring and then replay the specific API data.

1. Open the RUMBA Trace utility.

2. From the RUMBA Trace Options menu, choose Configuration. The Configure Tracing Parameters dialog box will be displayed.

3. Click Select All.

4. Click the Output tab, and then select the Binary File box.

5. In the text box under Binary Output, type the path and file name to which you want to save the API data flow (use the extension ***.bin**).

6. Click OK to close the Configure Tracing Parameters dialog box.

7. Reproduce the problem that you are trying to troubleshoot. (For instance, attempt to run the RUMBA software application that is failing to connect properly.)

8. From the RUMBA Trace Options menu, choose Configuration.

9. On the Output tab, clear the Binary File box (turns off the binary option).

10. Click the API Selection tab, choose the APIs you want to analyze.

11. Click the Advanced tab. Under Binary File Replay, type in the name of the file you saved (or you can use the browse button to navigate to it).

12. Click Replay Now to view the API data flow.

Display software code version

The RUMBA Trace Console contains a useful feature that can give you an all-inclusive software code version report that covers **.cfg**, **.dll**, **.exe**, and **.ini** files.

1. From the Trace menu, choose Options.

2. Choose Code Version Snapshot.

▶ **Note**

If you use this feature, you may want to run it either before or after you complete your trace, because this report is extensive and takes time to run.

Playback display and printer data stream trace

You can use RUMBA Trace Console to record the AS/400 or Mainframe Display and Printer Data Streams, and then analyze and change this data, including adding rules of behavior on key actions and changing labels. This feature is especially useful for troubleshooting problems, or when you need to create a demonstration host for training or marketing purposes.

1. Open the RUMBA Trace utility.

2. From the RUMBA Trace Options menu, choose Configuration.

3. On the API Selection tab, select a single Display or Printer Data Stream to record.

4. Click the Output tab, select the Formatted File box, and then type in the path and name of the file you want to create (use the extension ***.fmt**).

5. Click OK to close the Configure Tracing Options dialog box.

6. Reproduce the problem or demonstrate the RUMBA software feature you want to record.

7. Close the RUMBA Trace utility and then start a RUMBA Display or Printer session.

8. From the Connection menu, choose Configure, select Demo Host from the Installed Interfaces box, and then click the Demo Host tab.

9. In the Script file box, type in the path and name of the file you saved (or you can use the Browse button to navigate to it).

10. Click Reconnect to demonstrate the feature or problem you recorded.

▶ **Note**

The Demo Host can play back only one output file at a time, so make sure that you only choose one at a time on the API Selection tab of the Configure Tracing Options dialog box.

2 Development Tools

Micro Focus provides a comprehensive set of development tools through the RUMBA OFFICE products and the RUMBA OBJECTX Development Kit (ODK). This guide introduces you to these tools and provides an overview on how to use them.

With the RUMBA OBJECTX Development Kit, you can build applications with ActiveX/OLE controls to minimize development time and maximize programming resources. With the RUMBA products and the ODK, you can develop new 32-bit applications which utilize the Legacy APIs (application programming interfaces).

The RUMBA OBJECTX Development Kit is a separate product which includes a full version of RUMBA OFFICE.

RUMBA OBJECTX Development Kit

The comprehensive RUMBA OBJECTX Development Kit provides everything you need to quickly and easily build custom enterprise applications for AS/400, IBM Mainframe, HP, and UNIX platforms. The ODK facilitates the development of browser-independent host connectivity solutions by providing these resources:

- **RUMBA OBJECTX controls**. These are the ActiveX controls developed by Micro Focus for the RUMBA OFFICE universal connectivity suite—the first commercial Windows-based product built as a set of ActiveX controls. There are two types of OBJECTX controls:

  - **Pro controls** are the full-featured OBJECTX controls that make up RUMBA OFFICE (PC-to-Host) software.

- **Express controls** provide core functionality for applications that work with AS/400 and mainframe host applications, and provide the advantages of downloading more quickly and requiring less disk space than the full-featured Pro controls.

- **RUMBA JavaBeans** are modeled after the Express controls, and provide functionality for applications that work with AS/400 and mainframe host applications, but with the added advantage of browser and platform independence.

- Sample applications and complete documentation designed to make it faster and easier to develop client/server applications and employ the power of corporate intranets and the Internet.

- Additional tools and utilities, including full installation of the RUMBA OFFICE and RUMBA Web-to-Host products.

Samples and documentation for multiple development environments

The ODK contains these online documents:

- **ODK Developer Guide**: Contains a product overview and explains how to install and use the ODK and its components.

- **ODK Reference**: A comprehensive online guide to the OBJECTX controls, JavaBeans, and ODK tools and utilities. Complete documentation is included in both HTML and Windows Help formats to provide the details you need to develop enterprise client/server, intranet, and Internet applications.

- **ODK Self-Study Guides**: A series of tutorials that teach you to use the OBJECTX controls and JavaBeans to create powerful client-based applications that work with host applications.

- **ODK Sample Applications:** A full set of sample applications for the Visual Basic, Visual C++, and HTML environments. These samples demonstrate using the RUMBA OBJECTX controls and JavaBeans to develop client and server-based solutions.

- **Technical Notes**: Additional documentation, including the ODK ReadMe, What's New with the Pro Controls, and technology articles on Java Server Pages (JSP) and XML.

Microsoft Internet Explorer

The RUMBA OBJECTX Development Kit (ODK) ships with the Microsoft Internet Explorer Web browser as its user interface. This makes it quick and easy to access the documentation and run sample applications, including HTML samples, within the browser.

You can click Properties, Methods, and Events for each control and access the code level. In fact, these controls require minimal code, so it is quick and easy to make changes. The HTML reference section provides a quick tutorial on how to use Internet Explorer to access all the ODK components.

A complete version of RUMBA OFFICE

A full version of RUMBA OFFICE, consisting of all the RUMBA OBJECTX controls, is included in the ODK. These controls provide the components you need to build powerful applications that access information on AS/400, IBM mainframe, UNIX, and HP systems. These controls include:

- **Printer enhancements** including print preview of host print jobs and the ability to manage host, PC, and network printers from a single console.

- **New Color Mapper** expands your choices for coloring any of the RUMBA components.

- **Full Screen Macro Editor** allows easy point-and-click creation and modification of macros.

- **Full Scalability** lets you use as few or as many RUMBA OBJECTX controls as you need to satisfy your organization's requirements. You can add your own custom ActiveX controls, including aggregate controls which encapsulate RUMBA OBJECTX, to build a completely customized application. A RUMBA OFFICE license is required for each desktop running an application using RUMBA OBJECTX controls.

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