

RICE

(*RACER Interactive Client Environment*)

Manual



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Technical Report 2003–01
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April 11, 2004

Quick Start RICE (RACER Interactive Client Environment), build 36

Step 1:

Start Racer in a separate window (simply type racer, no command line options)

Step 2:

- Either: Run RICE from the command line with “*java -jar rice.jar*” (Requires JAVA 2 i.e. Java 1.3 or higher)
- Or: Use web start. This is highly preferred, as it will automatically provide you with the latest version. You must trust the application, but I promise that you can (no guarantees though, but every intrusion or damage is unintended)

Step 3:

Use Tools→Options to configure the ip-number and port on which Racer is listening, and whether you want RICE to autoconnect to this client at startup.

Check Tools→Connect to make the connection with racer (this is done automatically if needed, but this allow you to test the connection, or to disconnect by unchecking).

Connecting to Racer also displays any already loaded TBoxes in Racer.

With Tools→Logging you can turn logging traffic on and off.

Use File→Open File... to select a file.

Use File→Open URL... to load a KB from a URL.

Navigate through the tree.

Selecting a name of a concept retrieves instances (if any), showing them on the right.

You can type commands in the textfield above the "Submit" button.

Press "Submit" to have your command (which is the *selected* text in the textfield, or *all* text if nothing is selected) sent to the racer server and executed. The results are shown in the lower textfield.

Type a concept expression and press “preClassify” to have Racer position this concept (which is the selected text in the textfield, or all text if nothing is selected), showing its parents, possible parents, potential children, and coordinate concepts.

For your convenience, you can use CTRL+SHIFT+C to copy the text of the selected node in the tree to the clipboard.

Use File→Exit to quit

Send questions or comments to:

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1. Introduction

RICE (RACER Interactive Client Environment) has emerged from a variety of demands, all of which are not yet fulfilled. These requirements are:

- a. To provide an easy to use interface that provides insight in the manipulation of Description Logic based knowledge as is processed by a DL reasoner
- b. To provide reusable components for displaying classified knowledge and connecting with a DL reasoner.
- c. To be implement standards for connecting to and querying a DL reasoner.

Currently, main focus is on the first requirement. However, with the emerging of the DIG standard, the third requirement may be fulfilled in the future. The second requirement is still underrated.

2. Obtaining and Running RICE

RICE can be obtained from the RICE website. Currently it is located at this URL: <http://www.b1g-systems.com/ronald/rice>.

New features in this release (build 36; April 11, 2004)

20040411 Enhanced graphical display, including assertions. Thanks to Vaithi Subramanian for providing this functionality.

Bug Fixes in this release:

20040112 DAML files didn't display the Graph properly. A blank graph was shown. This works, but might need changes to RACER. To be continued...

Bugs & wishes:

20040411 Add RQL to "Insert" menu
20040411 Redo parts of visualization (DOT stuff)
20040105 Support "Save" functionality
20030629 The Linux version of DOT requires presence of libpng12.so.0. This needs to be worked out.
20030411 The coloring scheme for relations is independent of the actual existence of relations (i.e. whether they are used in an ABox).
20030411 Currently, role hierarchies can not be represented.
20030119 Elaborate on preclassification
20030119 Setting current TBox and ABox correctly, when RACER is also used by e.g. OilEd.
20020611 Sometimes the textboxes don't process input. This seems to be a java-bug, but it has to be explored further.
20020408 Aboutbox doesn't show in JDK1.4 under SUN, and hangs the application
20020320 Processes cannot be interrupted.

Previous Bug Fixes and introduced features:

- 20040115 Multi line statement caused an out of memory error. Thanks to Kevin Li for reporting this
- 20040105 RICE now also treats “0.0.0.0” as localhost. Apparently this is required for MacOS.
- 20040105 A “Naming Interface” is introduced. This makes it possible to distinguish between identifiers and names. A basic interface is implemented that represents concepts by their short names (i.e. without their URI). This is work in progress...
- 20031031 Check versioning of JRacer. The new JRacer interface has been used, with some adaptations.
- 20030912 It is possible to load DAML files and DAML URLs
- 20031025 It is possible to load OWL files and OWL URLs
- 20031031 Additional functionality added to the Graph display. Pressing the right mouse button on a node provides various options. (thanks to Christiana Wahn and Judith Gentz)
- 20031031 The Graph should now also function with Mac OS X
- 20031031 Previous and Next buttons to navigate through command history (thanks to Birte Glimm)
- 20030119 Allow multi-line commands, or multiple commands, to be submitted to RACER (thanks to Birte Glimm)
- 20030629 A local Graph application (which must be DOT compliant) can be specified. This overcomes the extraction problems of the included DOT files. This might also support DOT for Mac OS X, but this needs to be tested.
- 20030629 Improved error messages for the DOT processes.
- 20030629 Extraction of the DOT files from the JAR suffered from various bugs. Besides, error reporting on these bugs was insufficient.
- 20030410 The implementation for showing graphs has been adapted to speed up the process of drawing.
- 20030401 Errors that occur during loading of a file (stack overflow, incorrect parentheses) are not represented in RICE.
- 20030401 ShowGraph seems to have problems with concepts having too many relations
- 20030401 Model files containing semicolons (comments) are now treated correctly when sent to RACER.
- 20030401 Detection of whether RACER runs on the same host is improved. Previously only ‘127.0.0.1’ was considered local, now also a match on ip address is being performed.
- 20030120 All concepts can be presented in an alphabetical list (sorted per tbox), from which a concept can be selected.
- 20030119 It seems that TBox-selection may initialize unintended. Fixed in RACER-1-7-7.
- 20030119 “All” button added to show all instances for the selected ABox.
- 20030119 Opening a DAML file works, but currently only when connected to RACER on the same machine. Opening DAML-files from a URL needs to be done.
- 20030107 Add Menu options for new (RACER-1-7-6) features.
- 20030107 Graphical representation of ABox for Windows and Linux
- 20020820 You can now search for a concept by typing the concept name.

20020820 Double-clicking a concept to expand was buggy.
20020820 Problems with parentheses in strict symbols are fixed.
20020819 Tools → Logging allows you to enable logging of messages sent to RACER
20020819 Tools → Connect now also initializes the tree, showing the DEFAULT model (if any) loaded by RACER
20020819 Tools → Options... now offers “autoconnect” feature, so that RICE connects to RACER at startup.
20020819 RICE now supports url-based concept names.
20020814 If a TBox without ABoxes is loaded, RICE no longer tries to get instances when a node in the tree is selected.
20020814 Node names starting with “http” are now treated correctly. Spaces still remain problematic.
20020629 Client Logging enabled. To see the requests sent to RACER, set the property “racer.clientLogging” in .rice.properties to true.
20020614 Nodes can be reloaded, using CTRL+R or Edit→Reload selected node. If no node is selected, the whole tree is reloaded.
20020611 The instance list is now sorted
20020611 “Flush” functionality added: this can sync racer and rice, in case you notice that results from racer are not the replies to your queries. This occurs mainly when an error has occurred or when a rice client has been terminated previously.
20020502 Using multiple Tboxes and Aboxes is now (almost☺) fully supported.
20020520 Some processes (tbox-satisfiability and tree initialization) have been made threaded. Others will follow...
20020520 Progress bar added
20020520 “Load URL” menu added. The “Reopen” menu automatically distinguishes URLs from files.
20020520 The tree is positioned to show the (first) concept that an instance instantiates.
20020520 Unsatisfiable concepts are no longer displayed in the tree.
20020507 Maintains a list of Most Recently Used Documents, to be opened from the “Reopen” Menu.
20020507 Some properties are stored in the file .rice.properties in the user-home directory. This facilitates configuration of default racer ip-address and port.
20020502 Font selection dialog added
20020502 Web Start facility
20020502 Selecting an instance automatically selects the related concept(s)
20020319 *No labels* Fields are provided with labels.
20020320 *File load works only when client and racer run on same machine.* If RACER runs on IP-address 127.0.0.1 (i.e. localhost), the “racer-read-file” command is used. Otherwise the selected file is parsed to RACER.
20020319 *Not tested.* I have to thank Ameen, Volker and Ralf for being guinea pigs! However, no formal testing methods are (yet) applied!
20020319 *No support.* The source code is now provided, so you can be self-supported! I’ll try to help if I can, however.
20020411 If any text is selected, the submit and preclassify buttons only process the selection. Otherwise, all text in the textbox is processed.

20020409 Also runs under JDK1.4 Windows (other platforms not tested)
20020408 The confusing default tree no longer appears
20020404 *Current date incorrectly appears as build date*: Correct build date set.
20020403 Submit checks the number of parentheses.
20020403 Insert Menu with many commands, for convenience
20020320 *No Exit button, actually, no menu bar at all*: see new features
20020319 *No version information*: see the about box
20020319 *No documentation*: this is documentation, isn't it?
20020320 *Multi-line terms cause submit to hang e.g.:*
(concept-subsumes? sister
aunt): Newline characters are replaced by spaces before sending the
command
20020320 Menu bars instead of buttons for manipulations
20020320 About Box added
20020320 Components size with window size
20020320 PreClassify Button added
20020319 *Only run under Windows 2000*: Runs under Linux