

Reality RealWeb

Introduction

RealWeb is an integral feature of Reality. It provides the DataBasic programmer with the facility to web-enable an application with little or no knowledge of HTML, allowing the retention of existing business rules and utilizing developers existing skill sets.

DataBasic subroutines are called directly from a Web browser by simply specifying a URL. The supplied DataBasic API allows the programmer to construct and return an HTML page for display in a browser, or to retrieve complete HTML pages and images from a Reality database.

In addition, using an HTML form, data entered by the user can be included in the URL and passed to the subroutine. This data can be used in various ways – e.g. to construct queries or to update the database.

Features

RealWeb consists of a set of Java Servlets that run on a Web Server and a rich set of DataBasic APIs for constructing the HTML pages that are returned to the browser. The API consists of over 130 functions ensuring that developers are able to generate all elements of a HTML Web page.

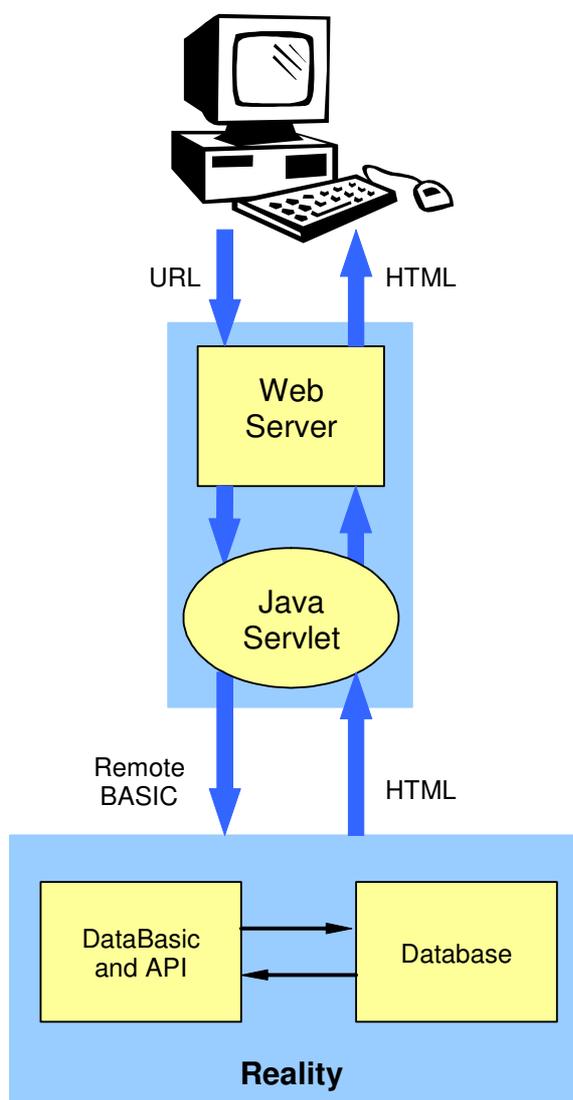
Using just a few functions constructs simple pages, including repeating multi-valued data, while deploying more complex routines can implement the full richness of HTML – including tables, frames and stylesheets. Connection between the Web Server and Reality is by means of integrated Remote DataBasic.

The comprehensive on-line documentation, with working examples and solutions, ensures that developers are able to rapidly construct Web pages via DataBasic code.

With Reality's powerful data storage capabilities, an entire Website can be stored within the database. This can include all images, JavaScript, complete HTML pages, Flash and other Web elements, ensuring a low cost of ownership and reduced maintenance overheads.

RealWeb supports one-shot and persistent connections:

In one-shot connection mode, a pool of Remote BASIC servers can be held open to handle incoming requests efficiently. When a connection is no longer required it remains open for subsequent use by the same, or a different web browser. A request from a web browser only initiates a new connection if there are none available.



Persistent connection mode guarantees that a browser that created a connection will get the same connection when accessing a subsequent page. This enables item locks, transaction boundaries and application context to be maintained across several Web pages. Optionally, when in persistent mode, the user can be prompted for a Reality user-id and password before starting a new connection.

API – Application Programming Interface

The RealWeb API is a toolkit that the DataBasic programmer can use to interface to a Web browser – i.e. to access arguments passed as part of the URL and to construct the HTML page that will be returned to the browser. Routines are provided to provide the following:

- Fetch the values of arguments passed to RealWeb by the browser.
- Start and end an HTML page
- Format text in various ways – for example, as a heading; left, centre or right aligned; fixed-pitch; in a particular font size and colour.
- Structure text in various ways
- Create hyperlinks
- Create an HTML form containing push buttons, text boxes, drop down lists, etc.
- Create bulleted, numbered and definition lists
- Fetch and manipulate cookies
- Manipulate and insert pre-stored text and HTML – Dynamic Data Merging.
- Lay out a web page using frames
- Create tables, which can be populated with data extracted from the Reality database.
- Debug RealWeb DataBasic subroutines.

For a full list of all the API calls, complete with code examples for all calls, refer to the *RealWeb* section of the latest User Documentation.

Standards

HTTP 1.0/1.1.

API produces HTML to version 4.01 Transitional.

Java Servlet API version 2.1.

Example from On-Line Documentation

The following is an example of the RealWeb API call: RW_START_HTML_PAGE, including the resulting webpage.

```
SUBROUTINE WELCOME
  * Include the RealWeb definitions
  INCLUDE #RW.INCLUDE.DEFS FROM /SYSFILES/REALWEB,BP

  HTML = ""
  CRLF = CHAR(13) : CHAR(10)

  * Get the URL of the Reality item server.
  STYLESHEET = ""
  CALL RW_GET_PARAM("__isurl", STYLESHEET)
  * Specify the location of the stylesheet.
  STYLESHEET = STYLESHEET : "/REALWEB-ITEMS/styles.css"

  * Start the HTML page.
  * Display the text 'Welcome' in the browser's title bar.
  * Don't specify a background image.
  * Use the styles stylesheet.
  * Use the default meta tag.
  * Make this a normal page.
  CALL RW_START_HTML_PAGE("Welcome", "", STYLESHEET, "", RW_BODY)

  * Insert a heading,
  TEXT = "RealWeb"
  CALL RWS_HEADING(TEXT, 1, "")
  HTML = HTML : TEXT : CRLF

  * Insert a paragraph containing the required text.
  TEXT = "Welcome to the wonderful world of RealWeb!"
  CALL RWS_PARA(TEXT, "", "")
  HTML = HTML : TEXT

  CALL RW_PUT(HTML)

  * Complete the page.
  CALL RW_END_PAGE
RETURN
```

Hide result

