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R:WEB
Reviewer's Guide
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The purpose of this guide is to position the just-released R:WEB 1.0 and assist reviewers in their evaluation of Microrim's exciting new Internet database solution. The following pages highlight several of the key features of R:WEB and its powerful development tool, R:BASE.

Overview
Due to the growth of the Internet as a means for conducting electronic commerce, there is an increasing demand for an inexpensive and simple Internet database solution. R:WEB

was designed specifically to answer that demand. Up until the release of R:WEB in December of 1995, companies were limited to expensive, complicated, and time-consuming solutions that required significant programming.

For those companies that want to tap into the millions of customers on the Internet super highway, R:WEB is the first Internet database solution of its kind for both the business owners with their own Internet server, and for the Internet Service Providers (ISPs) who provide server space for those businesses without their own server.

In brief, R:WEB directly connects your World Wide Web site to your database management system. With R:WEB, you can collect, process, and provide live data globally to Internet browsers using a single database solution. R:WEB provides 32-bit database connectivity for World Wide Web browsers such as Netscape Navigator, NCSA Mosaic, and Microsoft Internet Explorer—without requiring HTML (HyperText Markup Language) or CGI (Common Gateway Interface) programming skills.

R:WEB offers those wanting to conduct Internet commerce these six significant advantages:
1. No complicated programming is necessary. All the business user needs to know is what information he/she wants to display to and collect from Internet customers. R:WEB does the work.
2. To use R:WEB, you simply create R:WEB-compatible databases and forms using R:BASE—which is included for free in the R:WEB package as a point-and-click database and forms design tool. You simply install R:WEB, the R:BASE forms, and the associated database on the Web Server.
3. The database that is directly linked to your WWW site can be an R:BASE database or any ODBC-compliant database. So, if you're using a DBMS such as Access, FoxPro, Approach, etc., R:WEB and R:BASE become your front-end link to the Internet.
4. It's much more than order entry. Your applications can include forms for querying, viewing, editing, and entering data directly from the Internet. Internet customers can browse through live data such as inventory quantities, enter their own information, and easily request information directly from an R:BASE or ODBC-compliant database through your company's WWW home page.
5. Backend power of R:BASE. As the sophistication and complexity of Web applications increase, a direct connection to a Relational Database Management System (RDBMS) like R:BASE will be essential. Any complex search engine requirements or on-line order processing will require the power and flexibility provided by direct relational database connectivity. All of the information a business wants to have immediately accessible to customers or employees can be made available without any change to the structure or format of the existing relational database. R:WEB and R:BASE give businesses increased speed of inquiries, the ability to store gigabytes of data, the use of complex data types, and the flexibility of queries within their WWW applications.
6. Application security. With R:BASE's data-integrity rules, constraints, and password security, you have complete control of what information an Internet user can or cannot access.

R:WEB Customers

R:WEB customers tend to be a forward-thinking group that realizes the many benefits of conducting Internet commerce; however, many have limited database experience. These people are looking for simple, yet dynamic solutions that won't require them to learn, or pay for, complicated and tedious programming.

R:WEB customers come from virtually every type of business. They simply want to streamline their operations on-line. They are:

1. Organizations (medium to small) that are looking for a relatively simple and inexpensive solution for connecting their ODBC-compliant database applications and their WWW home page for live data processing.
2. Organizations that currently use R:BASE business applications and want to enhance those applications to collect and process data directly from their WWW home page on the Internet.
3. Developers who want to enhance their products and their client's applications to run across the WWW.
4. Organizations that are just getting started and need a complete solution for creating an Internet database application, and may not currently have a database processing system set up can use R:WEB with R:BASE.

Practical Applications

A business could use R:WEB applications to perform order processing and tracking, catalog lookups, ad hoc queries, subscriber registration, event selection, and other data-driven applications. You can use R:WEB to provide the information you need to those who need it, immediately. R:WEB can be used for all kinds of essential business applications such as the following:

· Ordering products and services on-line
· Registering event participants
· Providing inventory quantities to vendors
· Searching catalog and directory listings
· Using the Internet as an enterprise wide network or wide area network for internal use with R:WEB and the WWW
· Doing market research surveys and receiving quick customer feedback
· Providing on-line technical support
· Tracking numbers for shipping
· Servicing a wide variety of information publishing applications

The R:WEB Advantage

The Internet has become the fastest growing information delivery vehicle. R:WEB is built upon a foundation that will let it grow with the expanding needs of this audience. Companies are currently using the WWW for uses such as customer support, advertising, electronic shopping, and on-line publishing. Here's an example of how a typical company we interviewed is currently collecting and processing customer orders and requests from the WWW:

When an Internet user visits this company's Internet home page and wants to request information or order products on-line, the user enters his/her name and information into a provided Web page. Behind the scenes, this Web page is an HTML document that's connected to complicated PERL or CGI scripts. Once the customer submits the completed Web page back to the company's Web server, the connected PERL scripts convert the information into text and send it back to the company as an e-mail message. To process the information, the company then opens the e-mail message and picks out the customer's information from the text file. Then, someone manually re-enters the data into the company's enterprise database application for data processing.

The problem: The process is expensive to set up and maintain, and costs the company response time and resources by manually re-entering the data for processing.

The solution: R:WEB gives the company in the situation described above a less expensive and time-saving option. If that company used R:WEB, the Internet customer could enter their information and submit their order directly into the company's enterprise database application and the order could be processed immediately, with no lag time or manual data processing required.

The Powerful Design Tool Set
R:WEB is built on one of the most powerful and respected database engines available… R:BASE. R:BASE applications are extremely powerful and robust because R:BASE uses the fourth-generation language (4GL) with embedded SQL for data management and manipulation and all the graphical interface design tools needed to design a truly powerful Internet database solution.

To use R:WEB, simply create R:WEB-compatible forms using R:BASE 5.5 for Windows or R:BASE for OS/2. R:BASE 5.5 provides an easy graphical user interface to help step companies through the process of creating R:WEB-compatible forms. Samples and on-line documentation are included to help users learn how to generate R:WEB-compatible forms. Basic telephone technical support is also available for FREE to R:BASE 5.5 and R:WEB registered users.

Below is an example of how a simple R:WEB-compatible form created in R:BASE 5.5 can look. It can include objects such as: column fields, variable fields, text objects, page titles, custom push buttons, images, horizontal lines, non-editable combo boxes, check boxes, radio buttons, field passwords, hyperlinks to other HTML documents, and background wallpaper.

After saving the forms, run them on the Windows NT Web Server using R:WEB and the associated database. R:WEB-compatible forms can be associated with any R:BASE database or ODBC-compliant database without the need to make any changes to the data structure.

Below is an example of how R:WEB would convert the R:BASE 5.5 form shown above into an R:WEB form and display it as a Web page on the WWW. R:WEB dynamically interprets and supports real-time information between the database and the Internet HTML form displayed on the end-user's Web browser.

To recap, when an Internet user enters a company's Web site and chooses an R:WEB-based Web page (for example, the order form on the previous page), R:WEB generates a connection to the associated database and forms residing on the Web server, displays the form as a Web page to the Web browser, and dynamically translates live information between the R:BASE database application and the Web page viewed by the Internet customer.

There are other products available that can provide a similar solution, but those packages that are competitive with R:WEB are much more expensive ($5,000 to $20,000), more time-consuming, and too complicated for small- to medium-sized businesses.

Evaluating R:WEB
The purpose of this guide is to assist you with your evaluation of R:WEB. The guide helps to show what differentiates R:WEB from other Internet database packages. If you have any questions as you work with R:WEB, please contact R:WEB Technical Support at 206-649-9551.

Evaluation Package & Installation
Your R:WEB evaluation package contains the latest version of the software and a reference/installation guide. For hardware and software requirements, refer to "Installing R:WEB" on Page 1 of the R:WEB Startup Guide.

To install R:WEB on a Windows NT server, first select to install "Full R:WEB" from the installation choices. In addition, if you want to design your forms and applications on the server, you must also select "Partial Version of R:BASE."

If you are installing R:WEB on any Windows 3.1, 3.11 or 95 workstation*, install "Full R:BASE and Partial Version of R:WEB." Use R:BASE to create the forms and use the partial version of R:WEB to convert the forms to HTML files. Then, test the forms with your Web browser.

*After installing R:BASE for Windows on your workstation, you must exit Windows. To start R:BASE for Windows, simply click on the R:BASE program group and double click on the R:BASE icon.

After you install R:WEB, please read the Readme.txts for additional information. If you are installing R:WEB on the NT server, refer to Rweb.txt and Rwebsvr.txt. If you are installing R:BASE and R:WEB on your workstation, the corresponding text files are Readme.txt, Rweb.txt and Sample.txt. To read the text files, double click the appropriate icon in the R:WEB program group in Windows Program Manager.

To configure R:WEB to run on your system, edit the R:WEB initialization file, RWEB.INI, during installation to reference the directories where you keep your applications, databases, and background images. If you add more applications and data sources later, you can add more entries to the RWEB.INI file. For a description and explanation of each section and line of the RWEB.INI file, please refer to the R:WEB Startup Guide.

Getting Started—A Brief Tour of R:WEB

Install R:WEB, which comes with a full copy of R:BASE as your development tool, either on your local PC or on your Windows NT server. Follow installation instructions in the R:WEB Startup Guide that accompanies your product.

Designing an R:WEB-Compatible Form in R:BASE

Use R:BASE 5.5 to create a database, which will be used to manage the information from your Web page application. Once you have created the database, you can begin designing forms.

Because R:WEB must conform to HTML when creating a Web page, not all features available in R:BASE 5.5 can be converted with the form. This means actions such as field- and table-level entry/exit procedures cannot be used because HTML is not interactive. However, you can use buttons to perform actions in an R:WEB form, such as adding data.

When designing a form with R:BASE's Form Designer, it's helpful to keep in mind that you should align your form objects along the top and left sides of the form so that users with Web browsers that are not maximized can see all fields without scrolling.

When experimenting with your form design, try to place push buttons, which run predefined or custom actions, such as a command file, anywhere on the form. To place a button, choose Object: Push Button in the Form Designer. If you want to run a command file when the push button is selected, select "Custom" as the button type, then enter the name of the command block and command file.

Using R:WEB to Run Your Forms

Once you have designed your forms for an application, you must set up R:WEB to convert it into a Web page. If you have multiple forms in an application (for example, you have a form that launches other forms), all the forms are considered to be one application; you only need to set up the one application, not each individual form.

To convert an application with R:WEB, first create a command file for each application.

If you're using the rwebsamp database, you should first create a command file called all.rmd and include these commands in it:

    connect rwebsamp
    edit using custcontact
    exit

After R:WEB completes the conversion process, there will be a file called index.html. This is your form as an HTML document. For further explanation and samples, please refer to rweb.txt and sample.txt.

Linking to Other Web Resources
If you want to connect your R:WEB application to another Web resource, such as a Web page, a file, or e-mail, you can place a hyperlink on your form. This hyperlink contains the address of the other Web resource. When the user selects the hyperlink on your form (say, an "Order Form" button), the corresponding Web resource opens.

Conducting Your Own Benchmarks:
Suggested Items for Comparison

As you review R:WEB, please keep in mind what it is and for whom it is intended. First and foremost, R:WEB is an easy-to-use Internet database solution for businesses who want to conduct Internet commerce. What makes R:WEB stand apart from the competition is its simplicity—no programming is required. Another key selling point is its affordability. It sells for $495 per Web server, and includes R:BASE free as a development tool.

Following are some specific areas you might want to consider as you evaluate R:WEB and compare it to other Internet database solutions.

How easy is it to design a form?
With R:BASE, you take full advantage of the Windows or the OS/2 PM graphical environment. R:BASE uses buttons, scroll bars, fonts, objects, and graphics to present data visually. It also includes pre-defined push buttons, combo boxes, radio buttons, check boxes, 3-D boxes, and more! R:BASE allows you to completely customize every component of forms and reports using "drag and drop" manipulation and graphical designer tools.

Can I use the graphical elements, such as photos, logos, boxes, wallpaper, etc., in the R:WEB form?
Definitely. For example, use a graphic saved in the GIF format as a background image and place graphics on your form in formats such as BMP, PCX, GIF, and TIF.

Does R:WEB have the ability to post information to Internet browsers?
Yes. R:WEB allows you to design a dynamic database application that posts live data to customers over the Internet. R:WEB provides a direct link between your Web page and your database. Imagine giving your distributors immediate and around-the-clock access

to your current inventory levels.

If I take orders over the Internet, is the transaction secure?
The Internet might not be secure for applications that involve sending credit card numbers back and forth. Currently, you must use a Web server that supports the SSL (Secure Sockets Layer). We recommend that you always use the SQL GRANT/REVOKE system in your database, as well as take other precautions to maintain the server.

Once the browser software delivers the information to your server and the associated R:BASE database, R:BASE takes over. With R:BASE's data integrity rules, constraints and password security, you have complete control of what information an Internet browser can or cannot access. Other PC databases require you to program data validation rules into your applications—even then you can often bypass those rules by editing data outside the application using available query and update tools. But with R:BASE, data validation rules and referential-integrity constraints stay with your data at the engine level.

How easily can I update or change my form?
It's as simple as making the design change on your form in R:BASE, and then running it through R:WEB again. No programming or scripting is required. For example, if you need to add another item to your on-line catalog, add the necessary fields and information with the graphical designer tools in R:BASE's Form Designer, and R:WEB generates the HTML code associated with this new form.

Can I assign passwords to grant certain clients further access into my database?
Yes, by using R:BASE's powerful SQL GRANT/REVOKE security system, you can assign user names and passwords to protect sensitive parts of your database system.

Am I limited to a certain number of forms?
No. You can have an unlimited number of forms.

Are there sample forms included in R:BASE that I can run through R:WEB to test the automatic conversion of a form into an HTML document?
In the samples included in the R:BASE installation, refer to the database called Rweb.db and the form Petshop. Also, look in the Rwebsamp database at the form called CustContact.

Must I have my database in R:BASE?
With R:WEB, you can link your Web site to an R:BASE database, or any ODBC-compliant database, like Access, FoxPro, Approach, dBase, Oracle, etc. However, you must initially create an R:BASE database to which you can attach ODBC data sources.

Can I set up reports based on the information collected from my Web site?
Absolutely. Using R:BASE's powerful querying tools (Query By Example, R>Prompt, and Report Designer), you have unmatched access to the data you've collected from your R:WEB application.

Are there R:WEB developers that I can talk to for application ideas?
Call Microrim at (800) 628-6990 and we'll give you some names of developers in your area.

What kind of financial investment do I need to make?
R:WEB is priced at $495 per server, with special sales promotions offered frequently. Call 800-628-6990 for the current offer. Microrim believes that R:WEB has something significant and unique to offer the Internet community, particularly with the power of a proven RDBMS like R:BASE.

There are other products available that can provide a similar solution, but those packages that are competitors of R:WEB are too expensive, more time-consuming, and too complicated for small- to medium-sized businesses. R:WEB is also unique in that it provides a complete database solution in the package; the majority of the other tools available do not provide a native relational database engine like R:BASE. For example, if you purchase a 5-User R:BASE LAN Pack, the single-user version of R:BASE (which is included free in R:WEB) instantly becomes a 6-node multi-user R:BASE package.

We hope you have enjoyed reviewing and working with R:WEB and R:BASE. Thanks for your consideration and interest.

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