

"Tip of the Day" Digest





"Tip of the Day" Digest

by R:BASE Technologies, Inc.

Welcome to the "Tip of the Day" Digest

The "Tip of the Day" Digest is a collection of the "Tip of the Day" threads posted on R:BASE List Servers from Razzak Memon, an R:BASE developer himself, the President & CEO of R:BASE Technologies, Inc.

These tips include many hundreds of features and innovations that have been added to R:BASE over the years.

"Tip of the Day" Digest

Copyright © 1982-2012 R:BASE Technologies, Inc.

Information in this document, including URL and other Internet web site references, is subject to change without notice. The example companies, individuals, products, organizations and events depicted herein are completely fictitious. Any similarity to a company, individual, product, organization or event is completely unintentional. R:BASE Technologies, Inc. shall not be liable for errors contained herein or for incidental consequential damages in connection with the furnishing, performance, or use of this material. This document contains proprietary information, which is protected by copyright. Complying with all applicable copyright laws is the responsibility of the user. Without limiting the rights under copyright, no part of this document may be reproduced, stored in or introduced into a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise), or for any purpose, without the express written consent of R:BASE Technologies, Inc. We reserve the right to make changes from time to time in the contents hereof without obligation to notify any person of such revision or changes. We also reserve the right to change the specification without notice and may therefore not coincide with the contents of this document. The manufacturer assumes no responsibilities with regard to the performance or use of third party products.

Products that are referred to in this document may be either trademarks and/or registered trademarks of the respective owners. The publisher and the author make no claim to these trademarks.

The software described in this document is furnished under a license agreement. The software may be used or copied only in accordance with the terms of that agreement. Any unauthorized use or duplication of the software is forbidden.

R:BASE Technologies, Inc. may have patents, patent applications, trademarks, copyrights, or other intellectual property rights covering subject matter in this document. Except as expressly provided in any written license agreement from R:BASE Technologies, Inc., the furnishing of this document does not give you any license to these patents, trademarks, copyrights, or other intellectual property.

Trademarks

R:BASE®, Oterro®, R:BASE C/S:I®, RBAAdmin®, R:Scope®, R:WEB Suite®, R:Mail®, R:Charts®, R:Spell Checker®, R:Docs®, R:BASE Editor®, R:Scheduler®, R:BASE Plugin Power Pack®, R:Style®, R:Code®, R:Struc®, RBZip®, R:Fax®, R:QBDataDirect®, R:QBSynchronizer®, R:QBDBExtractor®, R:Mail Editor®, R:Linux®, R:BASE Dependency Viewer®, R:Archive®, R:Chat®, RDCC Client®, R:Mail Editor®, R:Code®, R:Column Analyzer®, R:DF Form Filler®, R:FTPClient®, R:SFTPClient®, RBMap®, R:GeoCoder®, R:PDF Form Filler®, R:PDFWorks®, R:PDFMerge®, R:PDFSearch®, RBInstaller®, RBUpdater®, R:Capture®, R:RemoteControl®, R:Synchronizer®, R:Biometric®, R:CAD Viewer®, R:Twain2PDF®, R:Tango®, R:SureShip®, R:BASE Total Backup®, R:Scribbler®, R:SmartSig®, R:JobTrack®, R:TimeTrack®, R:Syntax®, R:WatchDog®, R:Manufacturing®, R:Merge®, R:Documenter®, R:Magellan®, R:WEB Reports®, R:WEB Gateway®, R:ReadyRoute®, R:Accounting®, R:Contact®, R:DWF Viewer®, R:Java®, R:PHP® and Pocket R:BASE® are trademarks or registered trademarks of R:BASE Technologies, Inc. All Rights Reserved. All other brand, product names, company names and logos are trademarks or registered trademarks of their respective companies.

Windows, Windows 7, Vista, Windows Server 2003-2008, XP, and Windows 2000 are registered trademarks of Microsoft Corporation.

Printed: January 2012 in Murrysville, PA

Fifth Edition

Table of Contents

Part I General	2
1 Accessing Database Setting While in TRACE Mode	2
2 Am I using Regular R:BASE or the Enterprise Edition	2
3 Capturing Common Operating System Folders	8
4 Copying Forms, Labels, and Reports	9
5 Data Dictionary and Selecting Color Value	10
6 Deleting R:BASE SCRATCH (.\$\$\$) Files	11
7 Deploying an R:BASE eXtreme 9.x (64) Database	11
8 Documenting Component IDs in Forms/Labels/Reports	12
9 Dynamically Changing Themes in R:BASE Application (.RBA)	12
10 Dynamically Defining Unique File Names	13
11 Enabling Object Inspector in R:BASE eXtreme	14
12 Enabling the Object Inspector in the Enterprise Edition	15
13 Enhanced [F3] Function Key in R:BASE eXtreme 9.1	16
14 Finding the Exact Name of a Form Control Type	17
15 Handling Milliseconds in Parameterized Update Statements	18
16 How Healthy is your Database?	18
17 Is the Application Compiled or Not?	20
18 Is the Application Runtime or Not?	20
19 One-Key Preview for Form, Label or Report Designers	21
20 Managing Custom Colors	21
21 Managing External Themes - R:BASE Themes Unleashed!	22
22 Managing Multipage Images	22
23 R:BASE eXtreme 9.0 32 or 64?	23
24 Tracking Date/Time and Version Information	24
25 Update Command History	26
26 Upgrading from R:BASE 7.6/Turbo V-8 for Windows to R:BASE eXtreme 9.x (64) ...	29
27 Using Expanded Color Template	30
28 Using Extended Colors	31
29 Using Custom Themes in R:BASE eXtreme	32
30 Using the #NOW System Variable	34
31 Using the Magnifying Glass	35
32 Using the Enhanced Data Dictionary [F3] Key	36
33 Using the Enhanced MAPIMail Plugins with Thunderbird	37
34 Using SCALEBY Property in R:BASE Application (.RBA)	38

35 What Version of Engine DLL, and Files In Use?	39
Part II Settings	41
1 Assigning Default Component IDs for Form, Label, and Report Controls	41
2 Automating the Directory for SCRATCH Files	41
3 Cleaning Scratch (.\$\$) Files on Exit	42
4 Customizing Default Printer Settings	42
5 Customizing Hints	42
6 Customizing WALKMENU Time Interval Settings	43
7 Disabling TRACE in Forms, Labels and Reports	44
8 Display Extended Characters	45
9 Duplicating Your Personalized R:BASE Settings	45
10 Handling Form/Report/Label Designer -ERROR-Messages	46
11 Taking Advantage of the SCRATCH Setting	46
12 Using Conditional TRACE in a Command File	48
13 Using Double-Click to Bring Up the Designers	48
14 Using R:BASE Executable Startup Options	49
15 Warning When Changing Table Structure	49
16 Warning When Closing an R:BASE Session	50
Part III R> Prompt	52
1 Copying/Pasting Multiple Line Code	52
2 Command History	52
3 Documenting and Recycling the Command History	52
4 Hot Keys	53
Part IV Database Explorer	55
1 Default File Names for Unloading Forms/Labels/Reports	55
2 Exploring the Database Explorer	55
3 Form Preview From the Database Explorer	57
4 Launch Directory	58
5 One Click UNLOAD for Data and Structure	58
6 Open Table/View Options Using the Data Browser/Editor	58
7 Renaming Database Explorer Objects	59
8 Searching for Text in Control Properties	59
9 Searching for Text in Expressions	60
10 Using MDI Option for Database Explorer Modules	62
Part V Data Designer (RBDefine)	66
1 Reorganizing Columns in Data Designer	66
2 Validate the syntax for an email address	66

Part VI Data Browser	69
1 Accessing Note/BLOB Field Viewer/Editor Using Right-Click	69
2 Adding Zebra Stripes to the Data Browser	69
3 Conditionally Managing Data Browser/Editor Options	69
4 Right-Click Calculate (Compute, Tally, Duplicates)	75
5 Turning the Data Browser into a Quick Form	76
6 Using Additional Data Browser/Editor Options	77
Part VII Stored Procedures	80
1 Controlling the Maximum Length of the RETURN Variable	80
2 Order of Processing for Stored Procedures and Triggers	80
Part VIII Forms	82
1 Accessing/Updating Custom EEPs using Right-Click	82
2 Action Sequence (Form EEP Execution)	82
3 Additional Fields for DB/Variable Email Label Controls	83
4 Capturing the Value of Form Component IDs	84
5 Controlling Date/Time Picker Drop-Down	86
6 Controlling TABLE Add/Delete Row Properties	86
7 Copy and Paste Custom Form Actions	86
8 Copy and Paste Expression Builder Variables_2	87
9 Copy and Paste Menu Bar Items	88
10 Copy and Paste Tree View Nodes	88
11 Copying and Pasting Windows Clipboard Data in Forms	88
12 Creating a Dynamic TreeView Object	89
13 Creating a Playlist for Windows Media Player	90
14 Customizing DB Grid Column Properties	91
15 Customizing Filter Options for the Enhanced DB Grid Control	92
16 Customizing Form Caption Button Colors	93
17 Defining a Conditional Background Color of Row in a DB Grid	94
18 Defining Custom EEPs for "On Roll Up" and "On Roll Down"	94
19 Defining Hint Expressions for DB Grid Columns	95
20 Defining TEMPORARY TABLES/VIEWS with Actions	98
21 Defining the Number of Items in Pop-up Menus	99
22 Designing Custom Pop-up Menus	100
23 Disabling Double Click for DB/VAR Memo Controls	100
24 Displaying the Current Table/Field on the Status Bar	101
25 Disabling the Sort Feature for DB Grid Columns	102
26 Displaying the Record Number in a DB Grid	103

27 Documenting Form EEPs	104
28 Drawing DB Grid Column Titles with Gradient	104
29 Dynamically Changing Band List Properties	108
30 Dynamically Passing DB Grid Filter Parameters	110
31 Enabling/Disabling the "Drag and Drop" Feature	112
32 Enhanced DB Grid Control - Hot Keys	112
33 Enhanced Tab Control EEPs	115
34 Getting the Radio Button Count	115
35 GROUPINDEX property for Speed Buttons	116
36 Listing All Controls with Component IDs	117
37 Making an Enhanced GroupBox Transparent	117
38 Managing Custom Form Actions	118
39 Managing DB Navigator Properties	118
40 Managing Digital Clock Properties	120
41 Managing RBTI Form Variables	121
42 Managing Table Properties on Demand	122
43 Managing Windows Media Player Properties	122
44 Placing Hidden Buttons	124
45 Selecting All Items in ListBox/ListViewControls	125
46 Setting the Background Color for Focused Controls	125
47 Suppressing Script Errors in WEB Browser Controls	126
48 The TreeView Menu in RRBYW3	126
49 Understanding Tab Order	127
50 Understanding the "Space Evenly" Option for RadioGroup Controls	128
51 Using a Date Picker (Calendar) in a DB Grid	129
52 Using a Default State for DB/Variable CheckBoxes	129
53 Using Images in the DB TreeView Control	129
54 Using Images in Variable/DB ListView Controls	133
55 Using the Mouse Over Property for Images	138
56 Using the New Display Format in Forms	139
57 Using the "On Right-Click" EEP on ListBox/ListViewControls	140
58 Using the SCALEBY Property	140
59 Using the File ListBox Control	141
60 Using the Directory Tree Control	141
61 Using the Multi-Select Option for the ListView Control	142
62 Using the Object List Toolbar	142
63 Using the "On Key Press" EEP for Instant Results	143
64 Using Wallpapers	144
65 Using Zebra Stripes in ListView Controls	145

66 Viewing Custom Form Action Code as a Hint	146
Part IX Reports and Labels	148
1 Altering the CrossTab Grid Color	148
2 Capturing Report System Variables	148
3 Changing the Report Section for All Expressions At Once	149
4 Copy and Paste Expression Builder Variables	149
5 Customizing Column and Row Titles for CrossTab Reports	150
6 Customizing Print Preview Screens with Themes	151
7 Customizing Report/Label Designer Toolbars	151
8 Defining Built-in PAUSE Messages in Reports	153
9 Defining TEMPORARY Table(s) within a Before Generate Action	154
10 Documenting Report/Label EEPs	155
11 Getting the Total Number of Pages in a Report	156
12 Managing the Memo Control	156
13 Opening a PDF Report in Presentation Mode	156
14 Printing a Portion of a Report to a Different Printer	158
15 Printing Watermark Images in RTF Reports	159
16 Retrieving Report Properties	159
17 Sorting Slave Tables with Forms/Sub-Reports	160
18 Using BRUSH_STYLE and PEN_STYLE Properties in Reports	161
19 Using Printer Control Codes	162
20 When to Use Report Actions vs. Report Band EEPs	163
Part X File Gateway	166
1 Automating Gateway Import/Export Routines	166
2 Defining Column Count When Importing Data	166
3 Defining Header/Footer when Using GATEWAY EXPORT XLSW	166
4 Importing New Table as Temporary	167
5 Multi-Tab Excel Workbook with Headers Using GATEWAY EXPORT XLSW	168
Part XI R:BASE Editor	172
1 Commenting and Uncommenting Commands	172
2 Customizing RBEEdit Structure Toolbar Options	173
3 Integrating the External R:BASE Editor	174
4 Running Your Code Within RBEEdit	175
5 Wrapping Commands Using the Right Margin	175
Part XII Trace Debugger	178
1 Managing Watch Variables in TRACE Mode	178
2 Tracking Errors in the Trace Debugger	178

Part XIII BLOB Editor	181
1 About the R:BASE eXtreme 9.1 BLOB Editor	181
Image	181
Menu Bar	182
Toolbars	183
ImageFile	183
ImageMouse Mode	184
ImageZoom	184
Image Annotations	184
Image Tools	184
ImageEdit	185
Color Adjust	185
Effects	187
Image Annotations	187
Line	188
Box	190
Ellipse	192
Text	193
Ruler	195
Polyline	197
Angle	198
Print Preview	199
Rotate	200
Zoom Properties	201
Note/VarChar	202
Rich Text	203
Unicode/BSTR	206
Hex	207
2 About the R:BASE 7.6/Turbo V-8 BLOB Editor	207
3 Customizing the BLOB Editor	212
4 Setting Rich Text Default Font for Blob Editor	213
Part XIV Commands	215
1 Assigning Line Numbers using the SELECT Command	215
2 Attaching Server Tables as TEMPORARY Tables	215
3 Changing CASCADE Options	216
4 Changing Report Margins Using the PRINT Command	216
5 Changing the Caption of Plugin Buttons	217
6 Converting 6.5++ Databases to Turbo V-8	218
7 Converting RTF to Plain TEXT, NOTE or VARCHAR	219
8 Clearing Stubborn Table Locks	222
9 Creating/Editing RTF Files Outside the Database	222
10 Customizing DIALOG POPUP Colors	222
11 Customizing the PRNSETUP Dialog	224
12 Defining Font Name/Size with OUTPUT PRINTER	226
13 Differentiating Between Regular and Temporary Tables/Views	227

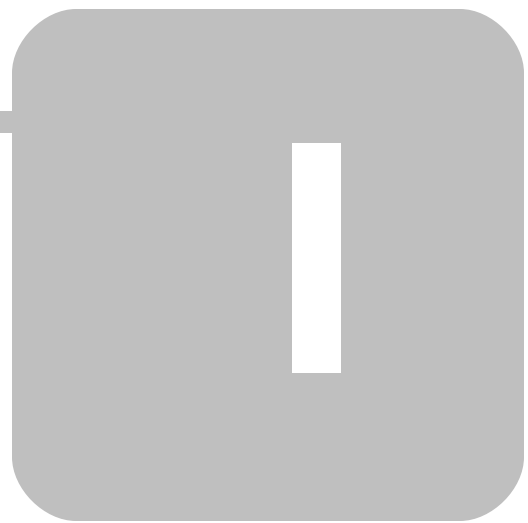
14	Displaying Longer Table/Column Names in Turbo V-8	228
15	Encrypting an UNLOADED DATA File	228
16	Enhanced DIALOG Command	229
17	Finding the Row Size using the RRowSize.RBL Plugin	231
18	Listing Database Keys	232
19	Listing Tables with Cascade and Cascade Type	233
20	Programmatically Clean Scratch Files on Exit	233
21	RUN filespec vs. QUIT TO filespec	234
22	Selecting the Appropriate Tray Using PRNSETUP	234
23	Understanding Dotted vs. Ampersand Variables	235
24	Understanding WHILE Loop Optimization	237
25	Upgrading an R:BASE Database to Turbo V-8	238
26	Using an Enhanced Calculator in a Dialog Box	239
27	Using DROP ALL	240
28	Using ON CONNECT	240
29	Using PRNSETUP Help Options	241
30	Using the Enhanced DIR Command in R:BASE	242
31	Using the GAUGE Options with PAUSE	244
32	Using the R:AudioPlayer Plugin	245
33	Using the R:ID3Tag Plugin to extract MP3 file information	247
34	Using the TOP and LEFT coordinates for PRNSETUP	247
35	Using the Zoom Level Percent for PRINT	248
36	Using Themes for the #WHERE Builder	248
37	Using SET FEEDBACK	248
38	Using SET PROGRESS	249
39	Using Wild Cards with PROPERTY	250
40	Validating An Internet Connection	250

Part XV Functions 252

1	Checking the R:BASE Build in Your Applications	252
2	Finding PORTS on Your Workstation	252
3	Finding Table/View Locks Programmatically	253
4	Finding the Data Type for a given Column or Variable	253
5	Finding the INTEGER value for a given TEXT String	254
6	Managing DLCALL Functions	254
7	Using IFWINDOW	255
8	Using CHKCUR	255
9	Using CHKVAR	255
10	Using SLOCP	256
11	Using SLOC Function to Locate the Number of String Instances	256

12 Using the Enhanced (GETDATE(' ')) Options	257
13 Using the FORMAT Function with #NOW	259
14 Using the LISTOF Function for Large Data	261
Part XVI R:Compiler	263
1 Customizing the Load Window in Compiled Applications	263
2 Displaying a Load Window	265
3 Distributing R:Compiler Applications	266
4 Is the Running Application Compiled or Not?	266
5 Reloading Resource Files	267
6 Saving/Recycling R:Compiler Projects	268
Part XVII R:Charts	270
1 Dynamically Assigning R:Charts' Tables/Views	270
Part XVIII Oterro	273
1 Checking Version and Build of Oterro	273
2 Configuring Oterro and R:BASE ODBC Drivers on 64-bit OS	273
Part XIX Feedback	278
Index	279

Part



1 General

1.1 Accessing Database Setting While in TRACE Mode

Did you know that you can access current database settings while in TRACE mode?

In the latest update of R:BASE eXtreme 9.0 (32/64), the Data Dictionary, [F3] key, now includes an additional tab to display the current Database Settings, which is very useful when TRACing code.

Here's a comprehensive list of items/features when pressing the [F3] key:

- Databases (Name, Date/Time, Size)
- Tables (Name, Comment) *
- Columns (Table/View Name, Name, Comment) *
- Key/Indexes (ID, Type, Table Name, Reference) *
- Variables (Name, Data Type, Value)
- Views (Name, Comment) *
- Forms (Name, Table, Comment) *
- Reports (Name, Table, Comment) *
- Labels (Name, Table, Comment) *
- Functions (Name, Category, Syntax)
- Stored Procedures (Name, Comment) *
- System Tables (Name) *
- System Columns (Table/View Name, Name, Comment) *
- Themes (Name)
- Printers (Name)
- External Forms (External Form Name, Date/Time, Size)
- Applications (Application Name, Date/Time, Size)
- Colors (Color, Name, Integer Value, RGB Value)
- Control Types (Name, Comment)
- Database Settings (Parameter, Value, Description) **

* Only visible when connected to database

** If not connected to database, default R:BASE settings are shown.

Supported Versions:

- R:BASE eXtreme 9.0 (Build: 9.0.1.10707 or higher)

1.2 Am I using Regular R:BASE or the Enterprise Edition

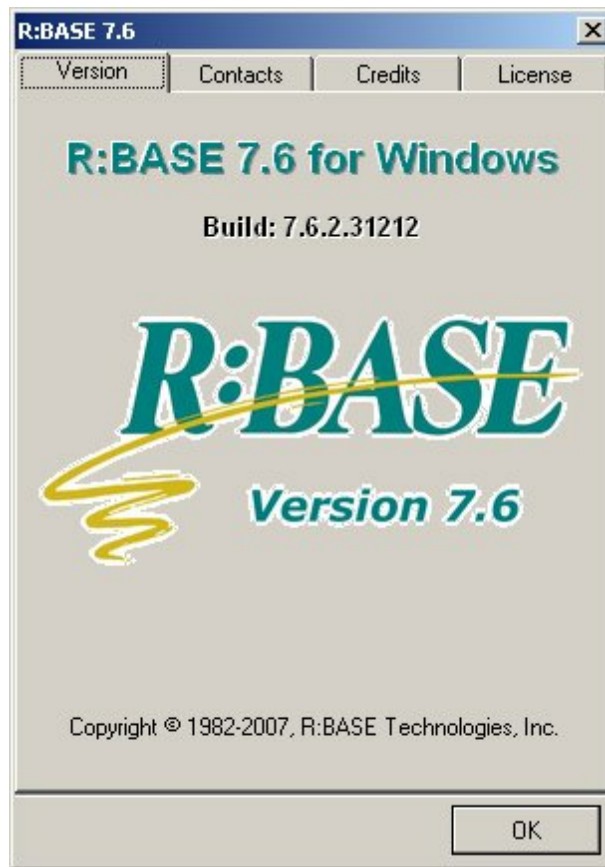
Having both versions of R:BASE (7.6, 7.6 EE or V-8, V-8 EE) installed, sometimes you wonder what flavor of R:BASE (Regular or Enterprise Edition) you are using.

From the look and feel, both versions (Regular or Enterprise Edition) are exactly the same. However, here a few ways to differentiate the regular versus the enterprise editions of R:BASE 7.6 and Turbo V-8 for Windows.

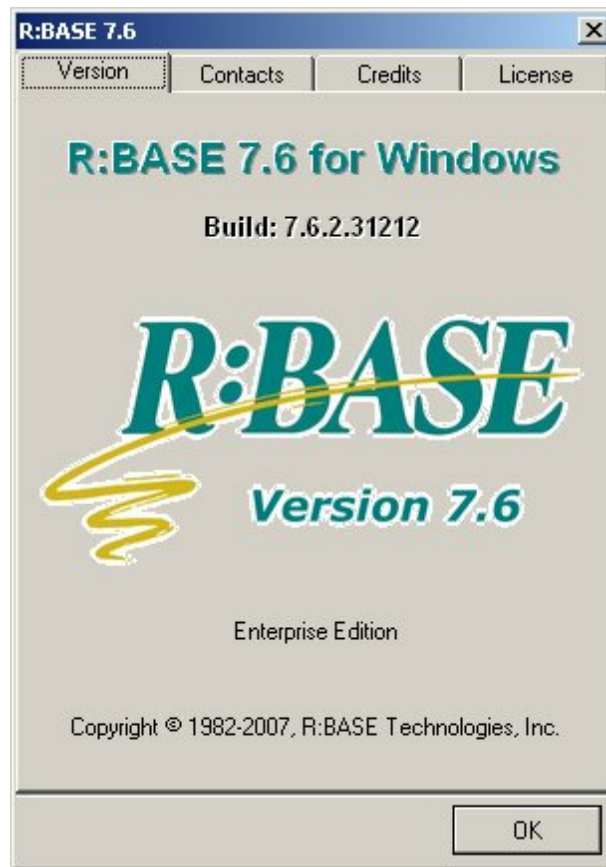
1. Using "Help" > "About R:BASE..."

From the Menu Bar, choose "Help" > "About R:BASE..."

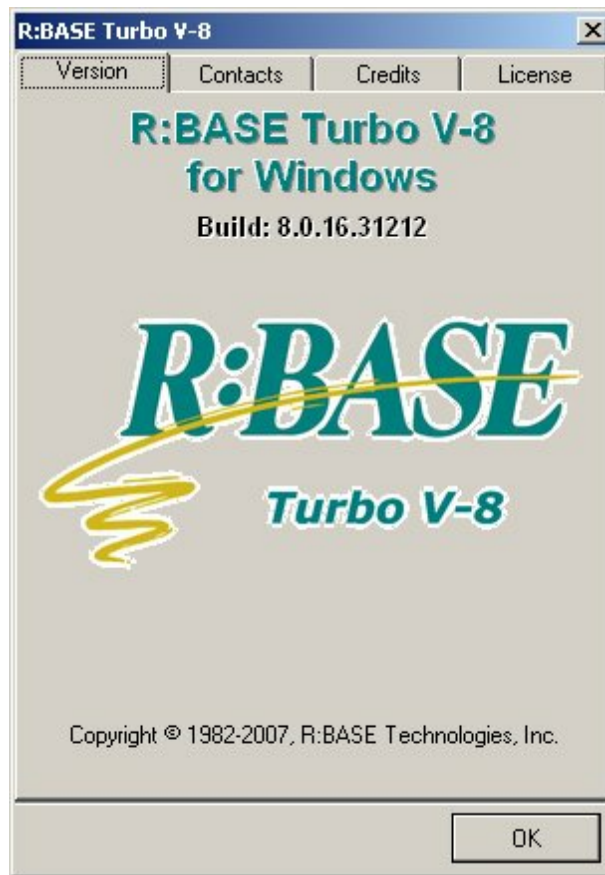
R:BASE 7.6 for Windows



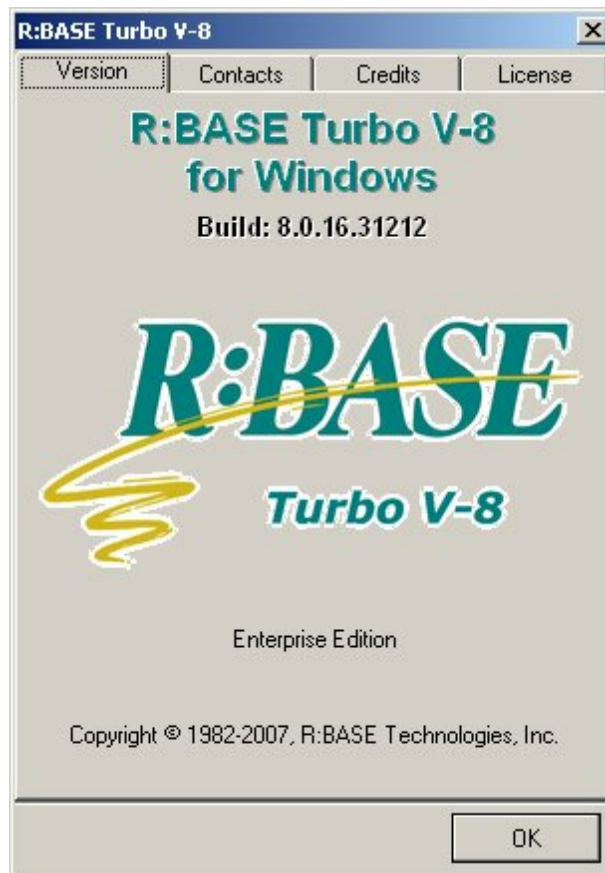
R:BASE 7.6 for Windows (Enterprise Edition)



R:BASE Turbo V-8 for Windows



R:BASE Turbo V-8 for Windows (Enterprise Edition)



2. The "Object Inspector" in the Form, Label and Report Designers

In addition to other tool bars, the Enterprise Edition of R:BASE 7.6/Turbo V-8 for Windows also includes an additional "Object Inspector" tool bar for the Form, Label or Report Designers.

To launch the Object Inspector in each Label, Form and Report Designer (Enterprise Editions):

Form Designer

1. From the Menu Bar, select "Layout" > "Toolbars"
2. Select Object Inspector

Label Designer

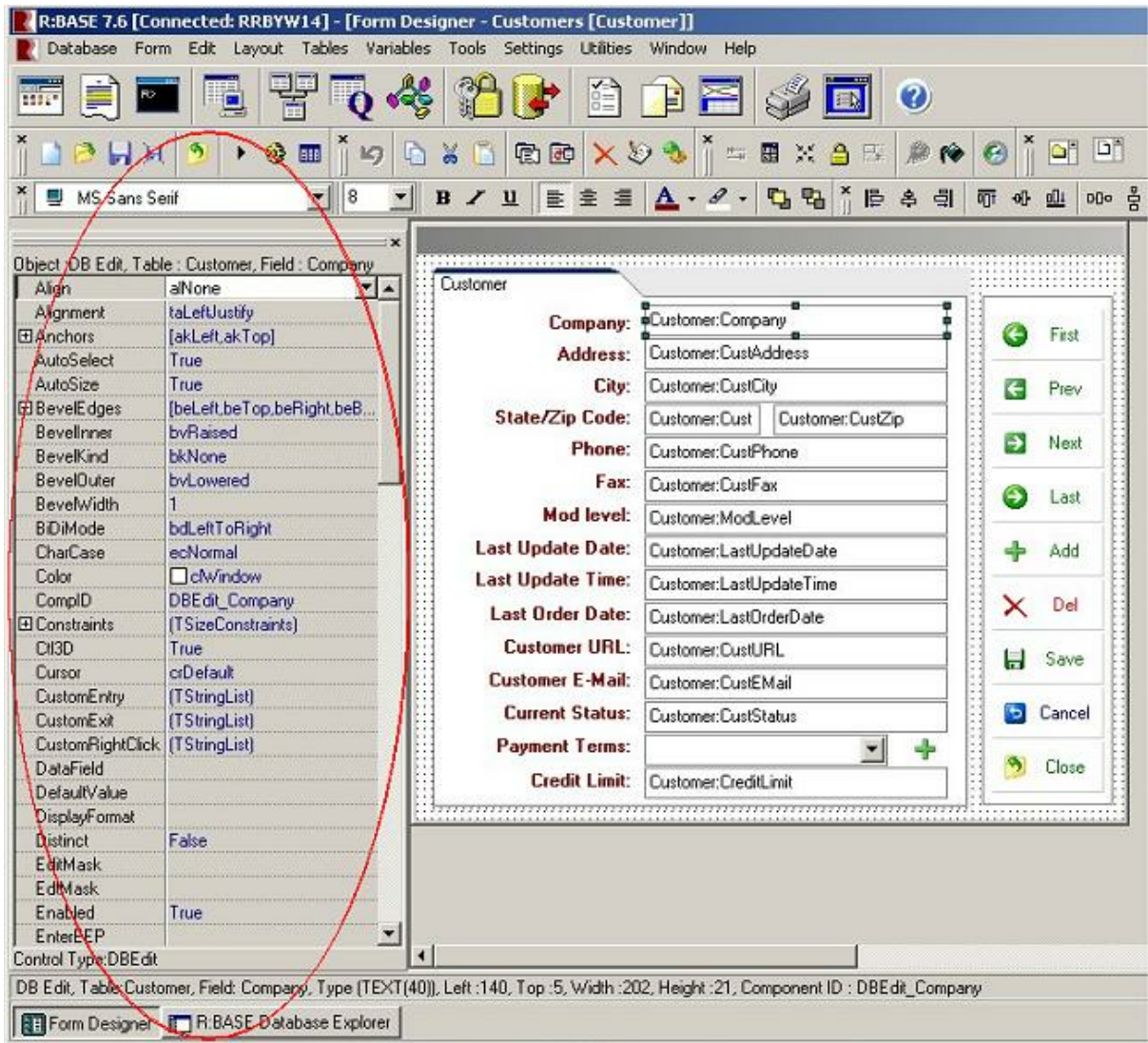
1. From the Menu Bar, select "View" > "Toolbars"
2. Select "Object Inspector"

Report Designer

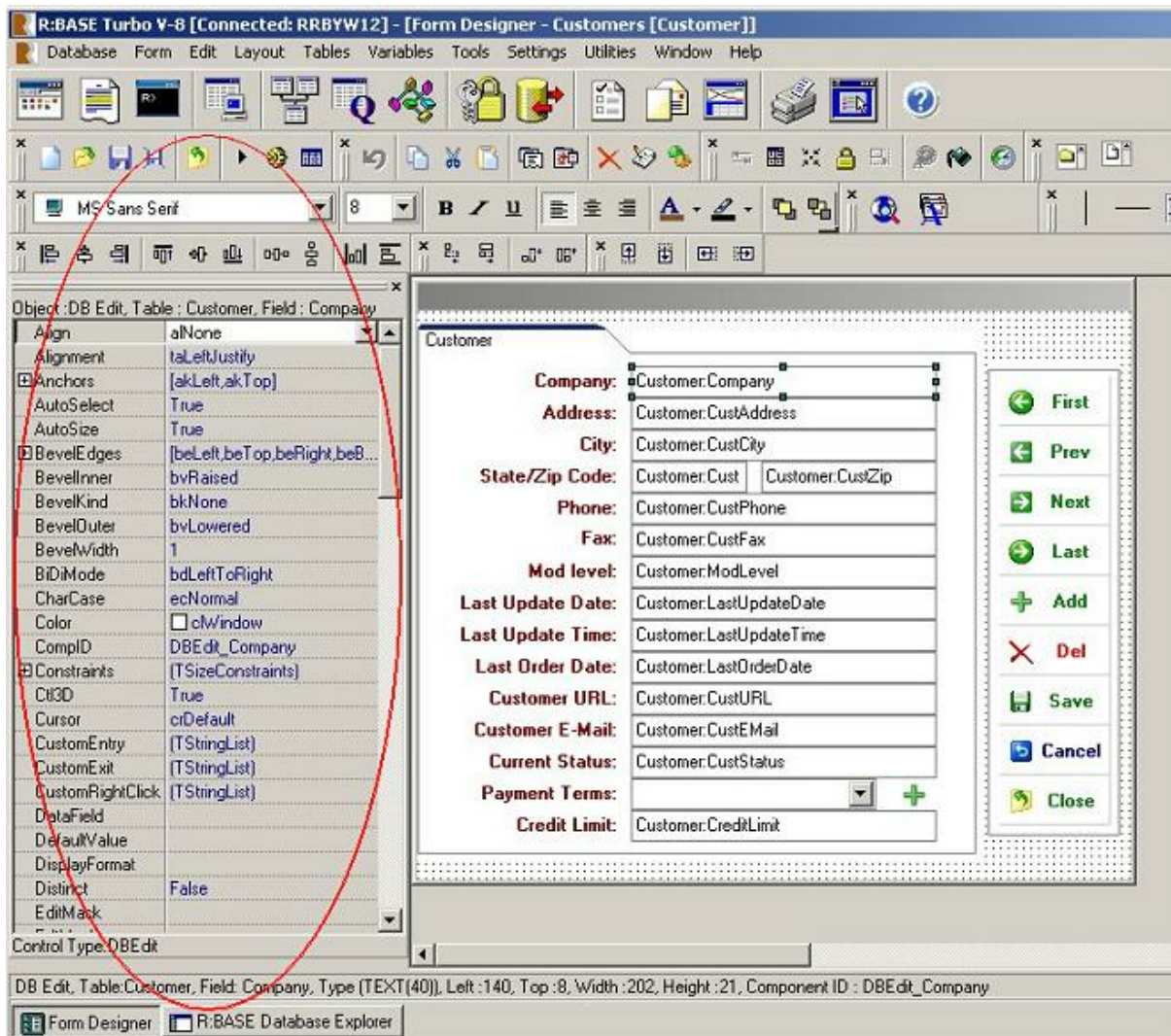
1. From the Menu Bar, select "View" > "Toolbars"
2. Select "Object Inspector"

The detailed Object Inspector lets you view and explore each and every possible property of a selected control on the form, label or report. The Object Inspector can be docked on the left or you may let it float anywhere you wish.

R:BASE 7.6 (Enterprise Edition) Object Inspector



R:BASE Turbo V-8 (Enterprise Edition) Object Inspector



When the form is opened in form designer or un-selecting the control, the actual "Form Properties" are revealed!

Supported Versions:

- R:BASE 7.6 (Build 7.6.2.31211 or higher) for Windows
- R:BASE (C/S:I) 7.6 (Build 7.6.2.31211 or higher) for Windows
- R:BASE Turbo (Build 7.6.2.31211 or higher) for Windows

1.3 Capturing Common Operating System Folders

Does your application require the ability to send output to a User's directory, only the network contains several different operating systems?

Perhaps the application must add a Favorite to the Internet Explorer menu bar. Or, it is needed that a specific Font be verified?

Access to the all operating system specific common folders like the My Documents, Windows, and System folders are easily accessible using the latest GetCommonFolder Plugin that is part of the R:BASE Plugin Power Pack 9.0/9.1.

The GetCommonFolder Plugin is used to capture fifty (50) of the most common operating system folders used frequently by applications, but which may not have the same name or location on any given system.

Syntax:

```
PLUGIN GetCommonFolder vFolder|FolderType
```

Where:

vFolder is the variable to return the text value of a given common operating system folder.

FolderType is the name of the specific common folder type.

Examples:

--The following return the Common Programs folder

```
PLUGIN GetCommonFolder vValue|COMMON_PROGRAMS
SET VAR vResult = 'COMMON_PROGRAMS : ' + vValue; WRITE .vResult

COMMON_PROGRAMS : C:\ProgramData\Microsoft\Windows\Start Menu\Programs
```

--The following return the Windows folder

```
PLUGIN GetCommonFolder vValue|WINDOWS
SET VAR vResult = 'WINDOWS : ' + vValue; WRITE .vResult

WINDOWS : C:\Windows
```

--The following return the System folder

```
PLUGIN GetCommonFolder vValue|SYSTEM
SET VAR vResult = 'SYSTEM : ' + vValue; WRITE .vResult

SYSTEM : C:\Windows\system32
```

--The following return the Program Files folder

```
PLUGIN GetCommonFolder vValue|PROGRAM_FILES
SET VAR vResult = 'PROGRAM_FILES : ' + vValue; WRITE .vResult

PROGRAM_FILES : C:\Program Files (x86)
```

In addition to a library of R:BASE Plugins, GetCommonFolder is included with the latest version of the R:BASE Plugin Power Pack 9.0/9.1.

R:BASE Plugin Power Pack Online Help Manual:

<http://www.rbase.com/products/PluginPowerPack91>

1.4 Copying Forms, Labels, and Reports

Did you know that you can copy any number of selected Forms, Labels, and Reports from one R:BASE 9.0 database to another R:BASE 9.0 database by simply copying [Ctrl+C] from the source database and pasting [Ctrl+V] to the destination database while both databases are connected as two separate sessions of R:BASE 9.0?

You can use the same techniques of copying and pasting between R:BASE eXtreme 9.0 (64) and R:BASE 9.0 (32) sessions as well!

In addition, you may copy (unload) any number of selected Tables, Views, Stored Procedures, Forms, Labels, Report, External Forms, and Command Files from R:BASE 9.0 Database Explorer to any folder or even your desktop, by simply dragging and dropping the selected item(s).

Hint:

While copying and pasting, make sure that both sessions of R:BASE 9.0 are using the similar modules in Database Explorer. For example, copying Forms from one Database Explorer to another Database Explorer you will have to make sure that the Forms section of the destination database is opened before pasting the forms. Thus, Forms to Forms, Labels to Labels, and Reports to Reports, and so on.

Supported Versions:

- R:BASE eXtreme 9.0 for Windows (Build: 9.0.1.10701 and higher)

1.5 Data Dictionary and Selecting Color Value

Data Dictionary [F3] Key in R:BASE eXtreme 9.1/9.5 (32/64) provides the following valuable information at your fingertips:

- Databases
- Tables *
- Columns *
- Key/Indexes *
- Variables
- Views *
- Forms *
- Reports *
- Labels *
- Functions
- Stored Procedures *
- System Tables *
- System Columns *
- Form Component IDs **
- Form Actions **
- Report Component IDs ***
- Label Component IDs ****
- Themes
- Printers
- External Forms
- Applications
- Colors
- Control Types
- Database Settings
- Files

* = Connected Database

** = While in Form Designer

*** = While in Report Designer

**** = While in Label Designer

These are very slick and handy options that allow users to capture information about the R:BASE environment and/or connected database.

These options can be accessed from anywhere in R:BASE by pressing the [F3] key or selecting "Data Dictionary" option from the Menu Bar under "Tools".

While programming and customizing applications, if you wish to use custom font color, background color, for CHOOSE, DIALOG, or PAUSE commands you can press the [F3] key, select the color you like and then either double-click for single item or [OK] button for multi-select items. Using this approach, you can capture the name of the color listed in the first column.

The Data Dictionary | Color tab includes a list of 190 colors.

Did you know that now you can choose which option you want as the return value?

Here's how:

Press [F3] Data Dictionary Key and notice the additional option for [Return Value].

You now have four (4) options to pick from.

[] Color [] Name [] Integer Value [] RGB Value

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.4.11012 or higher)

1.6 Deleting R:BASE SCRATCH (.\$\$\$) Files

There are several ways to implement custom routines to delete the leftover temporary R:BASE scratch files as application startup or application close, such as:

```
-- Example
-- Start
SET VAR vFolderAndFiles TEXT = NULL
SET VAR vFolderAndFiles = ((CVAL('SCRATCH'))+'\'*.$$$')
SET ERROR MESSAGE 2262 OFF
SET ERROR MESSAGE 2263 OFF
SET ERROR MESSAGE 2926 OFF
DELETE &vFolderAndFiles
SET ERROR MESSAGE 2926 ON
SET ERROR MESSAGE 2263 ON
SET ERROR MESSAGE 2262 ON
CLEAR VARIABLE vFolderAndFiles
RETURN
-- End
```

However, did you know that you don't need to implement such routines, since the latest update of R:BASE 7.6, C/S:I 7.6 and Turbo V-8 for Windows does it all for you?

Supported Versions:

- R:BASE 7.6 (Build 7.6.3.30321 or higher) for Windows
- R:BASE C/S:I 7.6 (Build 7.6.3.30321 or higher) for Windows
- R:BASE Turbo (Build 8.0.17.30321 or higher) for Windows

1.7 Deploying an R:BASE eXtreme 9.x (64) Database

When you are ready to deploy your first R:BASE eXtreme 9.x (64) database and application, you may want to reset the version and time stamp of all your forms, labels, reports, and stored procedures to clean start the first deployed version of your application.

Use the following code:

```
-- TimeStamp_Forms_Labels_Reports_StoredProcedures.RMD
-- A. Razzak Memon
-- May 14, 2010

UPDATE SYS_FORMS3 SET SYS_FORM_VERSION = 1, SYS_FORM_MOD_TS = .#NOW
UPDATE SYS_LABELS3 SET SYS_LABEL_VERSION = 1, SYS_LABEL_MOD_TS = .#NOW
UPDATE SYS_REPORTS3 SET SYS_REPORT_VERSION = 1, SYS_REPORT_MOD_TS = .#NOW
```

```
UPDATE SYS_PROCEDURES SET SYS_PROC_VERSION = 1, SYS_PROC_MOD_TS = .#NOW
RETURN
```

Supported Versions:

- R:BASE eXtreme 9.0 (Build: 9.0.1.10511 or higher)

1.8 Documenting Component IDs in Forms/Labels/Reports

Did you know that you can document all embedded Custom EEPs in Forms, Labels and Reports using the "Document Custom EEPs" option while in Form, Label or Report Designer?

Form Designer > main Menu Bar > Form > Document Custom EEPs
 Label Designer > main Menu Bar > Label > Document Custom EEPs
 Report Designer > main Menu Bar > Report > Document Custom EEPs

Notice the following output options:

- Printer
- Text File
- PDF File
- Clipboard

The complete documentation of embedded Custom EEPs will also include the Component IDs, if defined.

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.3.30509 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.3.30509 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.17.30509 or higher)

1.9 Dynamically Changing Themes in R:BASE Application (.RBA)

Current versions of R:BASE for Windows allow you to design and distribute the stand alone R:BASE Application (.RBA) files using the "Applications" module of R:BASE Database Explorer.

While in the Application designer, you may elect to use an Application Theme by checking the [] Use Theme option and then selecting your favorite theme from among the list of supported themes. Did you know that now you can dynamically change the R:BASE Application (.RBA) theme using the following PROPERTY command?

Example 01:

```
-- Start
-- Application: On After Start Action
CLEAR VARIABLE vThemeName
SET VAR vThemeName TEXT = NULL
IF (CVAL('NetUser')) <> 'Razzak' THEN
PROPERTY RBA_FORM THEMENAME 'Sports Blue'
PROPERTY RBA_FORM CAPTION 'Using Sports Blue'
ELSE
PROPERTY RBA_FORM THEMENAME 'R:BASE Rocks!'
PROPERTY RBA_FORM CAPTION 'Using R:BASE Rocks!'
ENDIF
RETURN
-- End
```

Example 02:

```

-- Start
-- Application: On After Start Action
IF (CVAL('DATABASE')) <> 'RRBYW16' OR (CVAL('DATABASE')) IS NULL THEN
CONNECT RRBYW16 IDENTIFIED BY NONE
ENDIF
CLEAR VARIABLE vUserThemeName,vThemeCaption,vDefaultTheme
SET VAR vUserThemeName TEXT = NULL
SET VAR vThemeCaption TEXT = NULL
SET VAR vDefaultTheme TEXT = 'Convergence'
SELECT UserThemeName, ThemeCaption INTO +
vUserThemeName INDIC ivUserThemeName, +
vThemeCaption INDIC ivThemeCaption +
FROM UserThemes WHERE UserName = (CVAL('NetUser'))
IF vUserThemeName IS NULL THEN
SET VAR vUserThemeName = .vDefaultTheme
SET VAR vThemeCaption = .vDefaultTheme
ENDIF
PROPERTY RBA_FORM THEMENAME .vUserThemeName
PROPERTY RBA_FORM CAPTION .vUserThemeName
RETURN
-- End

```

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.5.31229 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.5.31229 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.19.31229 or higher)
- R:BASE eXtreme (v9) for Windows (Build: 9.0.1.11229 or higher)

1.10 Dynamically Defining Unique File Names

Here are two examples to create a unique file name in a multi-user and multi-session environments using R:BASE eXtreme 9.1 (32/64) and R:BASE eXtreme 9.5 (64).

```

-- Example 01
-- Using R:BASE eXtreme 9.1 (32/64)
IF (CVAL('DATABASE')) <> 'RRBYW17' OR (CVAL('DATABASE')) IS NULL THEN
CONNECT RRBYW17 IDENTIFIED BY NONE
ENDIF
-- Verify the existence of PDF Sub-Directory
SET VAR vChkFile INTEGER = NULL
SET VAR vChkFile = (CHKFILE('PDF'))
IF vChkFile <> 1 THEN
MD PDF
ENDIF
CLS
-- Get Globally Unique ID
SET VAR vGUID TEXT = NULL
PLUGIN RGUID vGUID|SYMBOLS OFF
-- Create Unique PDF File Name
SET VAR vPDFFileName TEXT = NULL
SET VAR vPDFFileName = +
('PDF\'+(CVAL('NetUser'))+'_'+vGUID+'_CustomerList_'+ +
(FORMAT(.#DATE,'MMDDYYYY'))+'.pdf')
PRINT CustomerList +

```

```

OPTION PDF +
|FILENAME .vPDFFileName +
|SHOW_CANCEL_DIALOG ON +
|TITLE Customer List +
|SUBJECT Customer List +
|AUTHOR R:BASE eXtreme 9.1 (64) +
|KEYWORDS Customer List +
|OPEN ON
CLEAR VARIABLES vChkFile,vGUID,vPDFFileName,RBTI_%
RETURN

-- Example 02
-- Using R:BASE eXtreme 9.5 (64)
IF (CVAL('DATABASE')) <> 'RRBYW18' OR (CVAL('DATABASE')) IS NULL THEN
CONNECT RRBYW18 IDENTIFIED BY NONE
ENDIF
-- Verify the existence of PDF Sub-Directory
SET VAR vChkFile INTEGER = NULL
SET VAR vChkFile = (CHKFILE('PDF'))
IF vChkFile <> 1 THEN
MD PDF
ENDIF
CLS
-- Create Unique PDF File Name
SET VAR vPDFFileName TEXT = NULL
SET VAR vPDFFileName = +
('PDF\'+(CVAL('NetUser'))+'_'+(CVAL('GUID'))+'_CustomerList_'+ +
(FORMAT(.#DATE,'MMDDYYYY'))+'.pdf')
PRINT CustomerList +
OPTION PDF +
|FILENAME .vPDFFileName +
|SHOW_CANCEL_DIALOG ON +
|TITLE Customer List +
|SUBJECT Customer List +
|AUTHOR R:BASE eXtreme 9.1 (64) +
|KEYWORDS Customer List +
|OPEN ON
CLEAR VARIABLES vChkFile,vPDFFileName,RBTI_%
RETURN

```

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.4.11012 or higher)

1.11 Enabling Object Inspector in R:BASE eXtreme

Did you know that R:BASE eXtreme 9.0 includes the built-in Object Inspector for Form, Label and Report Designers?

While in Form, Label or Report Designer, you can enable the Object Inspector to explore in-depth properties of Form, Label, Report, and any selected object.

Here's how to enable the Object Inspectors in R:BASE eXtreme 9.0:

Form Designer > Menu Bar > View > Toolbars > Object Inspector

Report Designer > Menu Bar > View > Toolbars > Object Inspector

Label Designer > Menu Bar > View > Toolbars > Object Inspector

Once enabled, you may dock the Object Inspector on the left, or float anywhere you find more convenient!

Supported Versions:

- R:BASE eXtreme 9.0 (Build: 9.0.1.10701 and higher)

1.12 Enabling the Object Inspector in the Enterprise Edition

After installing the latest updates of R:BASE 7.6 or Turbo V-8 (Enterprise Editions), make sure to create a desktop shortcut with the following properties:

Target: C:\RBTI\RBG76\RBG76EE.EXE
or
Target: C:\RBTI\RBG8\RBG8EE.EXE

Then, follow the steps below to enable the Object Inspector for the Form, Label and Report Designers.

1. Start the RBG76EE.EXE or RBG8EE.EXE versions of R:BASE
2. From the main Menu Bar, choose "Help" > "About R:BASE..."
3. Verify that you are using the Enterprise Edition (the words "Enterprise Edition" will be displayed).
4. Click on the "OK" button to close the "About R:BASE" window.
5. Connect to a database
6. Open any form in the Form Designer.
7. Within the Form Designer, select "Layout" > "Toolbars" from the main Menu Bar.
8. Notice the additional Toolbar option of "Object Inspector"
9. Click on the Object Inspector

There should now be a floating Object Inspector toolbar.

10. Adjust the width and height as you wish
11. Double-Click on the Object Inspector caption area to dock the the Object Inspector on left side of the form designer area.
12. Close the Form Designer.

Now, let's try the Label Designer.

13. Open any label in the Label Designer.
14. Within the Label Designer, select "View" > "Toolbars" from the main Menu Bar.
15. Notice the additional Toolbar option of "Object Inspector".
16. Click on the Object Inspector.

There should now be a floating Object Inspector toolbar.

17. Adjust the width and height as you wish.
18. Double-Click on the Object Inspector caption area to dock the the Object Inspector on left side of the label designer area.
19. Close the Label Designer.

Now, let's try the Report Designer.

20. Open any report in the Report Designer.
21. Within the Report Designer, select "View" > "Toolbars" from the main Menu Bar.
22. Notice the additional Toolbar option of "Object Inspector".
23. Click on the Object Inspector.

There should now be a floating Object Inspector toolbar.

24. Adjust the width and height as you wish.

25. Double-Click on the Object Inspector caption area to dock the the Object Inspector on left side of the label designer area.
26. Close the Report Designer.

Supported Versions:

- R:BASE 7.6 (EE) Build: 7.6.3.30509 or higher
- R:BASE Turbo V-8 (EE) Build: 7.6.3.30509 or higher

1.13 Enhanced [F3] Function Key in R:BASE eXtreme 9.1

When using R:BASE eXtreme 9.1, you may use [F3] Function Key to explore the following options:

01. Databases (List of Databases including Name, Date/Time, Size)
02. Tables (Name, Comment)
03. Columns (Name, Comment)
04. Key/Indexes (ID, Type, Table Name, References)
05. Variables (Name Data Type, Value)
06. Views (Name, Comment)
07. Forms (Name, Table Name, Comment)
08. Reports (Name, Table Name, Comment)
09. Labels (Name, Table Name, Comment)
10. Functions (Name, Category, Syntax)
11. Stored Procedures (Name, Comment)
12. System Tables (Name)
13. System Columns (Name, Comment)
14. Themes (Name)
15. Printers (Name)
16. External Forms (Name, Date/Time, Size)
17. Applications (Name, Date/Time, Size)
18. Colors (Color, Name, Integer Value, RGB Value)
19. Control Types (Name, Comment)
20. Database Settings (Parameter, Value, Description)
21. Files (File Name, Extension, Date/Time, Size), with File Mask

Additionally, while in Form Designer, notice the following additional tabs:

22. Form Component IDs
23. Form Actions

While in Report Designer, notice the following additional tabs:

24. Report Component IDs

While in Label Designer, notice the following additional tabs:

25. Label Component IDs

While in External Form Designer, notice the following additional tabs:

26. External Form Component IDs
27. External Form Actions

After selecting the appropriate tab, you may use double-click to copy and paste the selected item while in R:BASE/EEP Editor, or [Ctrl+A] to select all items and then click on [OK] button to copy and paste all items in R:BASE/EEP Editor.

To jump from one tab to another, click on appropriate tab, or use the new Drop-Down [List] button (far right) and select appropriate tab.

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.4.10602 or higher)

1.14 Finding the Exact Name of a Form Control Type

When creating the Dynamic Objects for Forms, using the new CREATEOBJECT command, you have to know the exact name for the Control Type to be created dynamically at runtime.

Syntax:

```
CREATEOBJECT +  
<ObjectType> <ComponentID> <ParentControl> <Left Top Width Height>
```

If you are using the "Enterprise Edition" of R:BASE 7.6 for Windows or Turbo V-8 for Windows while in the Form Designer, *every* property of the selected object including the "Name" and "Object Type" is listed under the Object Inspector. However, the required Object Type name could be hard to find without using the Enterprise Edition.

Did you know that you can use the new [Control Types] tab of the Data Dictionary [F3] to highlight and paste the exact name for the desired Object Type?

In addition to specific tabs that become visible within which module the [F3] key was pressed, you will always find the [Control Types] tab from any module of R:BASE.

Data Dictionary [F3] General Tabs:

- System Tables
- System Columns
- Themes
- Control Types
- Tables
- Columns
- Variables
- Views
- Forms
- Reports
- Labels
- Functions
- Stored Procedures

Data Dictionary [F3] Form Designer Specific Tabs:

- All General tabs listed above, plus ...
- Form Component IDs
- Form Actions

Data Dictionary [F3] Label Designer Specific Tabs:

- All General tabs listed above, plus ...
- Label Component IDs

Data Dictionary [F3] Report Designer Specific Tabs:

- All General tabs listed above, plus ...
- Report Component IDs

Supported Versions:

R:BASE 7.6 for Windows (Build 7.6.2.31026 or higher)

R:BASE 7.6 (C/S:I) for Windows (Build 7.6.2.31026 or higher)

R:BASE Turbo V-8 for Windows (Build 8.0.16.1026 or higher)

1.15 Handling Milliseconds in Parameterized Update Statements

When converting MS SQL or Oracle databases to R:BASE Turbo V-8 or R:BASE eXtreme (version 9.0), or using parameterized update statements, it takes the hours, minutes, and seconds, but drops off the milliseconds.

By default, the milliseconds are not set in the configuration file of R:BASE and OTERRO. However, if you wish to deal with milliseconds, you will need to add that option in R:BASE and OTERRO configuration files accordingly.

Here's how:

In Oterro configuration file (Oterro35.cfg, Oterro40.cfg, or Oterro8.cfg), change the TIME FORMAT (line 48) to HH:MM:SS.SSS and TIME SEQUENCE (line 49) to HHMMSSSSS. Additional ".SSS" are used to handle milliseconds.

Example:

```
TIME FORMAT HH:MM:SS.SSS
TIME SEQUENCE HHMMSSSSS
```

Based on the R:BASE version, follow the same routine for appropriate R:BASE configuration file(s).

In addition, make sure that the connected R:BASE database settings are also configured accordingly.

1.16 How Healthy is your Database?

Have you ever wondered how healthy your database really is?

Are all defined indexes properly indexed? Are there any duplicate indexes? Are all Primary/Foreign/Referenced keys valid? Are all defined default column values still valid? Are all defined views still functional? Is there any inconsistency in performance?

These issues become important concerns when upgrading/migrating from an old (LEGACY) DOS or Windows version of R:BASE. Technically, there is very little to worry about when your database is designed and managed using the latest Data Designers (RBDefine), Enhanced CREATE and LOAD commands of R:BASE that fully enforce all rules and validate everything before the table is created/saved or the data is loaded. Granted, all things must be considered.

However, if you have upgraded your legacy database and everything seems to be working fine, do yourself and your lovely clients a big favor! Perform one additional task to validate the integrity of your database.

Follow the steps below and see if everything is "peachy".

1. Make a backup copy of the database.
2. Copy the entire database (.RB1-.RB4/.RX1-.RX4 files) on your local drive in a separate folder with at least twice as much available free disk space.
3. Start R:BASE using the latest version/update and switch the current folder to the appropriate database folder on your local drive.
4. At the R> prompt:

```
DISCONNECT
SET MESSAGES ON
SET ERROR MESSAGES ON
SET MULTI OFF
-- CONNECT the database with OWNER password, if any
CONNECT dbname IDENTIFIED BY owner password
-- CONNECT the database with no passwords
```

```
CONNECT dbname
```

5. Check the connected database CHARACTER settings, especially the IDQUOTES. At the R> prompt:

```
CLS
SHOW CHAR
```

Notice the setting for IDQUOTES (the last item on list). If this setting is blank/null, make sure to set the IDQUOTES settings to ` (that is a single reversed quote, on the same key as the ~ tilde).

```
SET IDQUOTES=`
```

6. Now create the unload file with NULL set to -0-. At the R> prompt:

```
CLS
SET NULL -0-
OUTPUT newdb.ALL
UNLOAD ALL
OUTPUT SCREEN
```

This step will create two files (newdb.ALL and newdb.LOB)

7. DISCONNECT, and then rename this database to some other name. At the R> prompt:

```
DISCONNECT
RENAME dbname.RB? dbnameBK.RB?
```

8. Now, let's rebuild the fresh database and see if it passes the integrity check. At the R> prompt:

```
CLS
RUN newdb.ALL
```

Watch the activity and all messages on the screen. Don't fall asleep! You might miss an important warning. Completion time may vary based on size of the database (number of tables/records/indexes).

If there were no warnings or error messages, you've got a fresh/healthy database. Give yourself a pat on the back.

If there are any warning or -ERROR- message(s), take them seriously. In this case, DISCONNECT the bad database (built using RUN newdb.ALL). At the R> prompt:

```
DISCONNECT
```

Delete the bad database. At the R> prompt:

```
DELETE dbname.rb?
DELETE newdb.ALL
DELETE newdb.LOB
-- Rename the previously saved database (Step 07.)
RENAME dbnameBK.RB? dbname.RB?
-- CONNECT to the database
CONNECT dbname
```

9. CORRECT all -ERROR-s accordingly and then repeat Step 06.
10. Do not quit or give up until you see a completely fresh database without any warnings or errors.

Believe me, the time spent on this exercise will save you a lot of hassle and embarrassment, instead of

chasing something obvious that should have been taken care of a long time ago. Hope that helps!

Additional housekeeping and database maintenance tips are also available on From The Edge:
<http://www.razzak.com/fte/>

1.17 Is the Application Compiled or Not?

When designing and distributing R:Compiler applications, your main menu options may include a line item to access Database Explorer or the R> Prompt (as demonstrated in RRBYW15).

Accessing that particular option would be fine if the end user is using the full version of R:BASE. However, that option would go nowhere if the end user is using the compiled version of the custom application.

Did you know that you can assign a unique Component ID to a particular item or button on your application main menu and then use the following GETPROPERTY and PROPERTY command to manage access to that option?

```
-- Start
-- On After Start EEP
-- Know if the running application is compiled or not?
CLEAR VARIABLE vCompiled
SET VAR vCompiled TEXT = NULL
GETPROPERTY APPLICATION ISCOMPILED vCompiled
IF vCompiled = 'YES' THEN
PROPERTY AccessDatabaseExplorer VISIBLE 'FALSE'
ENDIF
CLEAR VARIABLE vCompiled
RETURN
-- End
```

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.5.31229 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.5.31229 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.19.31229 or higher)
- R:BASE eXtreme (v9) for Windows (Build: 9.0.1.11229 or higher)

1.18 Is the Application Runtime or Not?

When designing and distributing Runtime applications, your main menu options may include a line item to access Database Explorer or the R> Prompt (as demonstrated in RRBYW15).

Accessing that particular option would be fine if the end user is using the full version of R:BASE. However, that option would go nowhere if the end user is using the Runtime version of the application.

Did you know that you can assign a unique Component ID to a particular item or button on your application main menu and then use the following GETPROPERTY and PROPERTY command to manage access to that option?

```
-- Start
-- On After Start EEP
-- Know if the running application is runtime or not?
CLEAR VARIABLE vRuntime
SET VAR vRuntime TEXT = NULL
GETPROPERTY APPLICATION ISRUNTIME vRuntime
IF vRuntime = 'YES' THEN
PROPERTY AccessDatabaseExplorer VISIBLE 'FALSE'
ENDIF
CLEAR VARIABLE vRuntime
```

RETURN
-- End

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.5.31229 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.5.31229 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.19.31229 or higher)
- R:BASE eXtreme (v9) for Windows (Build: 9.0.1.11229 or higher)

1.19 One-Key Preview for Form, Label or Report Designers

For those who love to use hot keys instead of clicking on the [Preview] button or [Ctrl + F9] combination within the Form, Label, or Report Designers, you can now use the single [F5] key to preview a form, label or report.

Supported Versions:

- R:BASE 7.6 for Windows (Build 7.6.2.31130 or higher ...)
- R:BASE 7.6 (C/S:I) for Windows (Build 7.6.2.31130 or higher)
- R:BASE Turbo V-8 for Windows (Build 8.0.16.1130 or higher)

1.20 Managing Custom Colors

While in Form, Label or Report Designer, defining a background color, when the ordinary color palate does not give the color you need, you always have the choice to opt for "Custom ..." colors. Selecting this option provides you with a selection of 48 Basic Colors as well as the option to define or select from 16 "Custom Colors". Once custom colors are defined and added to the list, only the logged in user on that workstation can access those Custom Colors while in Form, Label or Report Designer.

In an environment of R:BASE Developers and/or Team of R:BASE Contractors and Sub-Contractors, each developer must define those custom colors manually for R:BASE for Windows, in order to follow the application standards. In addition, if you define all those custom colors and for some reason you need to replace a hard drive or re-install R:BASE, you also have to re-define those custom colors when designing Forms, Labels or Reports.

Did you know that you can export your custom defined colors to a text file and then import them back into R:BASE when you need them again, or distribute to your own developers or contractors for consistency purposes?

Here' how:

1. Start R:BASE for Windows
2. Open any Form, Label or Report in designer
3. Select any control and use the Object Property to change background color
4. Select the "Custom ..." from the bottom of the list
5. Define your custom color or Add to existing Custom Colors
6. Click on [OK] button to save Custom Colors
7. Now if you wish to export all defined Custom Colors:

Database Explorer | Settings | Custom Colors

Notice the following options:

Save to file ...

Load from File ...

8. You may also import from a file that was created in Step 7

You can also import your 16 custom colors defined in R:BASE 7.6 or Turbo V-8 for Windows into R:BASE eXtreme 9.0 without re-defining them again in R:BASE eXtreme 9.0 32 or 64?

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.4.30623 or higher)

- R:BASE C/S:I 7.6 for Windows (Build: 7.6.4.30623 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.18.30623 or higher)
- R:BASE eXtreme 9.0 (Build: 9.0.1.10701 and higher)

1.21 Managing External Themes - R:BASE Themes Unleashed!

Did you know that you can use your own custom-designed or ".msstyles" compatible themes with R:BASE eXtreme 9.0?

R:BASE eXtreme 9.0 (32/64) now includes support for external themes. External theme files must have the ".msstyles" file extension. These themes can be acquired from any online resource or from a custom theme you created yourself. After a theme is loaded into the R:BASE session, the theme name will be listed in every available location where themes are specified and will also appear in the Data Dictionary list.

When using external themes, the theme file must be loaded into R:BASE each time the session is launched. So, it can be loaded within the environment set up in a startup file.

In order to load a theme into R:BASE, the PROPERTY command must be used. The following PROPERTY command parameters are to manage external themes in R:BASE eXtreme 9.0:

--Load Theme Example:

```
PROPERTY LOAD_THEME 'NewLuna' LunaBlue.msstyles
```

After this command is issued, the theme "NewLuna" will be available in all locations where a theme can be specified.

--Release Theme Example:

```
PROPERTY RELEASE_THEME NewLuna TRUE
```

After this command is issued, the theme "NewLuna" will be released.

--Change Theme Example:

```
PROPERTY CHANGE_THEME NewLuna LunaXP.msstyles
```

After this command is issued, the theme NewLuna will use the styles defined in the LunaXP.msstyles file. This command parameter is provided to alter the theme file, and to avoid changing the specified "theme name" in every location within the code.

Have fun integrating your own themes in R:BASE eXtreme 9.0!

Supported Versions:

- R:BASE eXtreme 9.0 (Build: 9.0.1.11126 or higher)

1.22 Managing Multipage Images

Did you know that you can use the built-in Note/BLOB Field Viewer/Editor to manage multipage VARBIT images, such as DCX, TIFF and GIF files?

The enhanced Note/BLOB Field Viewer/Editor now includes an additional option to manage Multipage Images. When Editing or Browsing the data using Data Browser/Editor, or a DB Grid in forms, the dynamic Note/BLOB Field Viewer/Editor is used if you double click on the NOTE, VARCHAR or VARBIT columns.

When using the form as BROWSE USING formname, EDIT USING formname, or ENTER USING formname, the Note/BLOB Field Viewer/Editor is used when double clicking on DB Memo controls for NOTE data types, the DB Rich Edit controls for VARCHAR data types (RTF data), or DB Image controls for VARBIT data types (images).

Depending on the form control used, tab appropriate window tab of the Note/BLOB Field Viewer/Editor is opened to manage the data accordingly. If you wish to manage Multipage images, such as DCX, TIFF or GIFs, you may select the "Multipage Images" tab of the Note/BLOB Field Viewer/Editor.

You may also use the enhanced RBBEDIT (RBBE) command to manage external files.

```

-- Example 01 (To Manage External Plain Text Data)
RBBE filename.txt

-- Example 02 (To Manage External RTF Data)
RBBE filename.rtf

-- Example 03 (To Manage Bitmap Files)
RBBE filename.bmp

-- Example 04 (To Manage Multipage TIFFs)
RBBE filename.TIF

-- Example 05 (To Manage Multipage DCX Files)
RBBE filename.cdx

-- Example 06 (To Manage Multipage GIFs)
RBBE filename.gif

```

Supported Versions:

- R:BASE 7.6 (Build 7.6.2.31211 or higher) for Windows
- R:BASE (C/S:I) 7.6 (Build 7.6.2.31211 or higher) for Windows
- R:BASE Turbo (Build 7.6.2.31211 or higher) for Windows

1.23 R:BASE eXtreme 9.0 32 or 64?

Designing and deploying version specific applications that include naming conventions for short (18 character) vs. long (128 character) table, view, column, index, SP, form, label, report, and variable names can be tricky at times to differentiate the deployed versions of R:BASE eXtreme 9.0 (32/64).

This is not relevant nor an issue if you are still using the 18 characters naming conventions even in R:BASE eXtreme 9.0 (64). I certainly don't use 18 character naming convention in my vertical market as well as recently deployed government applications running as LAN, WAN, Terminal Server, Web, and Custom Client/Server (R:CCS) versions of R:BASE eXtreme 9.0 (64).

So, if you decide to step-up your programming techniques and take advantage of 128 Characters naming convention in R:BASE eXtreme 9.0 (64), while maintaining the similar code for your R:BASE 9.0 (32) applications, you may need a method to differentiate the currently running version of R:BASE so that you can use the appropriate form names, etc.

Here is a dynamic CVAL function trick that you can use to find the currently running or compiled version of your R:BASE eXtreme 9.0 (32/64).

```

-- Example 01:
IF (SGET(CVAL('VERSION'),2,21)) = '64' THEN
SET NAMEWIDTH 40
-- additional R:BASE eXtreme 9.0 (64) specific code here ...
EDIT USING MyNewMainMenuForPublicUsers
ELSE
-- additional R:BASE eXtreme 9.0 (32) specific code here ...
EDIT USING MainMenuPublicUsrs
ENDIF

-- Example 02:
IF (SGET(CVAL('VERSION'),2,21)) = '32' THEN
-- additional R:BASE eXtreme 9.0 (32) specific code here ...
EDIT USING MainMenuPublicUsrs

```

```

ELSE
SET NAMEWIDTH 40
-- additional R:BASE eXtreme 9.0 (64) specific code here ...
EDIT USING MyNewMainMenuForPublicUsers
ENDIF

```

This should give you an idea of how to implement such techniques in your own applications.

Supported Versions:

- R:BASE eXtreme 9.0 (Build: 9.0.1.10511 or higher)

1.24 Tracking Date/Time and Version Information

Did you know that you can track the Date/Time and Version information of Stored Procedures, Forms, Reports, and Labels in R:BASE eXtreme 9.0 (64) using the Database Explorer?

In addition to SYS_PROC_VERSION (INTEGER) & SYS_PROC_MOD_TS (DATETIME) for SYS_PROCEDURES, R:BASE eXtreme 9.0 (64) now includes the following additional columns for SYS_FORMS3, SYS_LABELS3, and SYS_REPORTS3 to keep track of date/time as well as the revision number of modified Forms, Labels, and Reports.

Additional SYS_ Columns:

- SYS_FORMS3 (SYS_FORM_MOD_TS, SYS_FORM_VERSION)
- SYS_LABELS3 (SYS_LABEL_MOD_TS, SYS_LABEL_VERSION)
- SYS_REPORTS3 (SYS_REPORT_MOD_TS, SYS_REPORT_VERSION)

These columns are updated when saving the form, label or report while in form, label or report designers accordingly, which are displayed at the Database Explorer.

Form Name ▲	Main Table	Comment	Size (byt...	Date/Time	Version ▲
ActiveX	FormTable	To Demonstrate the use of ActiveX	1,177	03/14/2010 16:20:40.000	1
AdhocReports		Ad hoc Reports	14,982	03/14/2010 16:20:40.000	1
AnimatedGIFs	FormTable	To Demonstrate the use of Animated GIFs	73,394	03/14/2010 16:20:40.000	1
AskScreenPrinter	FormTable	Options to Print Report on Screen or Printer	4,414	03/14/2010 16:20:40.000	1
CallNotesEdit	ContactCallNotes	Review/Update Call Notes	7,135	03/14/2010 16:20:40.000	1
CallNotesEnter	ContactCallNotes	Enter Call Notes	4,658	03/14/2010 16:20:40.000	1
ContactPhoto	Contact	Show Customer Contact Photo	2,332	03/14/2010 16:20:40.000	1
Contacts	Contact	Enter/Update Contact(s)	7,111	03/14/2010 16:20:40.000	1
CustContAndSales	Customer	Master Form to Display Customer, Contacts...	10,449	03/14/2010 16:20:40.000	1
CustForm_StatusBar	Customer	Enter/Update Customer(s) - With Status Bar	8,010	03/14/2010 16:20:40.000	1
CustomerContacts	Customer	Customer and Contacts	9,312	03/14/2010 16:20:40.000	1
CustomerManagement	FormTable	Customer Management	6,637	03/14/2010 16:20:40.000	1
Customers	Customer	Enter/Update Customer(s)	7,717	03/14/2010 16:20:40.000	1

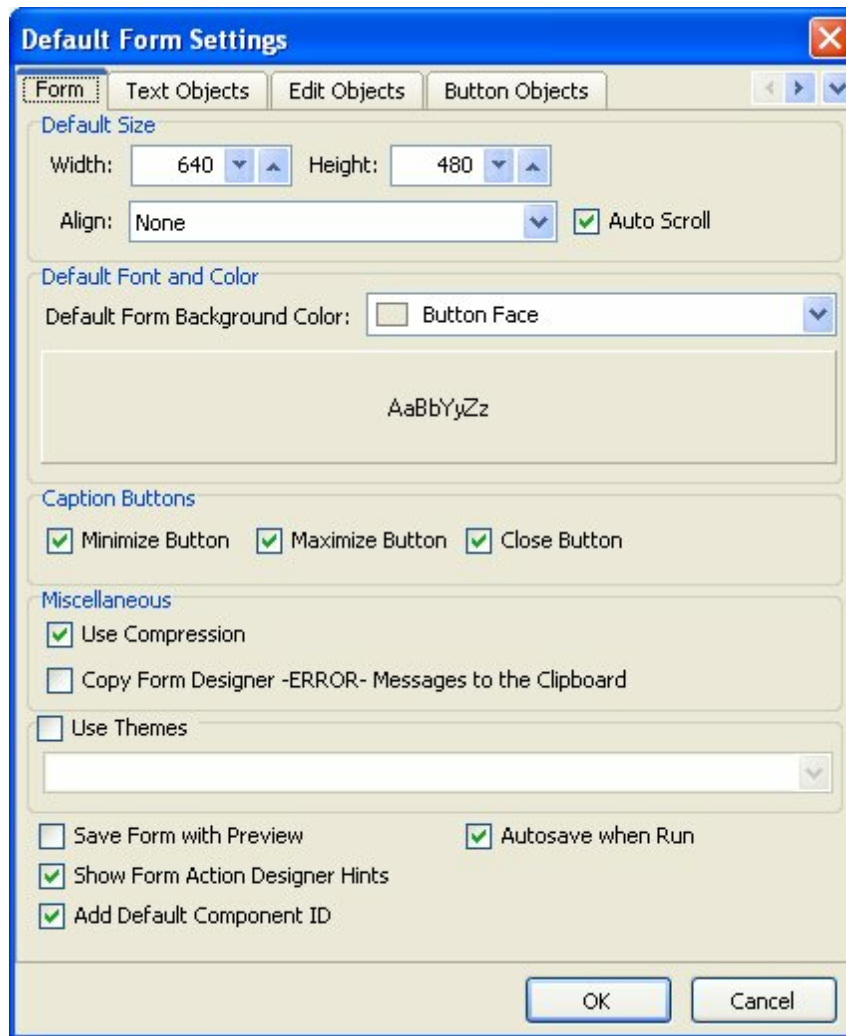
Report Name	Main Table	Comment	Size (bytes)	Date/Time	Version
ColumnarReport	Customer	To Demonstrate Columnar Report	3,923	03/14/2010 16:20:4...	1
ConditionalChkBox	YTDInvoiceTotal	To Demonstrate the use of Conditional Check...	10,385	03/14/2010 16:20:4...	1
Contacts	Contact	Customer Contact List	6,144	03/14/2010 16:20:4...	1
ContactsByCustomer	Contact	Contact List by Customer	7,223	03/14/2010 16:20:4...	1
CoverPageAndDetail	Customer	Customer List by State (Summary Page with ...	8,501	03/14/2010 16:20:4...	1
CrossTabReport	TCrossTabView	CrossTab Report (Standard)	6,277	03/14/2010 16:20:4...	1
CrossTabReportCust	TCrossTabView	CrossTab Report (Custom)	6,291	03/14/2010 16:20:4...	1
CustContInvoices	NewCustomer	Sub-Reports (4 Tables): NewCustomer, New...	19,906	03/14/2010 16:20:4...	1
CustDirWithURL_DB	Customer	Customer Phone Directory with Hyperlinks (U...	5,584	03/14/2010 16:20:4...	1
CustDirWithURL_VAR	Customer	Customer Phone Directory with Hyperlinks (U...	5,532	03/14/2010 16:20:4...	1
CustomerContacts	Customer	Sub-Reports (2 Tables): Customer and Conta...	8,935	03/14/2010 16:20:4...	1
CustomerDirectory	Customer	Customer Phone Directory	5,366	03/14/2010 16:20:4...	1

Label Name	Main Table	Comment	Size (bytes)	Date/Time	Version
ContactLabel	Contact	Contact Address Label	2,602	03/14/2010 16:20:40.000	1
CustomerLabels	Customer	Customer Labels	2,349	03/14/2010 16:20:40.000	1
CustShippingLabel	Customer	Customer Shipping Label	3,926	03/14/2010 16:20:40.000	1
EmployeeLabel	Employee	Employee Labels	2,878	03/14/2010 16:20:40.000	1
EmployeeLabel_01	Employee	Employee Labels	2,800	03/14/2010 16:20:40.000	1
EmployeeNameTags	Employee	Employee Name Tags	2,231	03/14/2010 16:20:40.000	1
LabelExpressions	Customer	Customer Labels	1,945	03/14/2010 16:20:40.000	1
ProductLabels	Product	Product Labels with Bar Code	3,159	03/14/2010 16:20:40.000	1
RBG90_CustShpLbl	Customer	RBG90 - 2DBarcode Shipping Label	3,945	03/14/2010 16:20:40.000	1
RBG90_SecureNmTag	Employee	RBG90 - 2DBarcode Security Tag	2,166	03/14/2010 16:20:40.000	1
SecurityNameTags	Employee	Employee Name Tags	2,231	03/14/2010 16:20:40.000	1

Hint:

While in Form Designer, when running or previewing the form, the form is automatically saved, thus stamps the date/time as well as increases the version count. If you wish to change this behavior and only stamp the date/time and increase the version count when you click on the [Save] button in Form Designer, you may change the Form Designer settings as follows:

Database Explorer | Main Menu | Settings | Form Designer ...



Supported Versions:

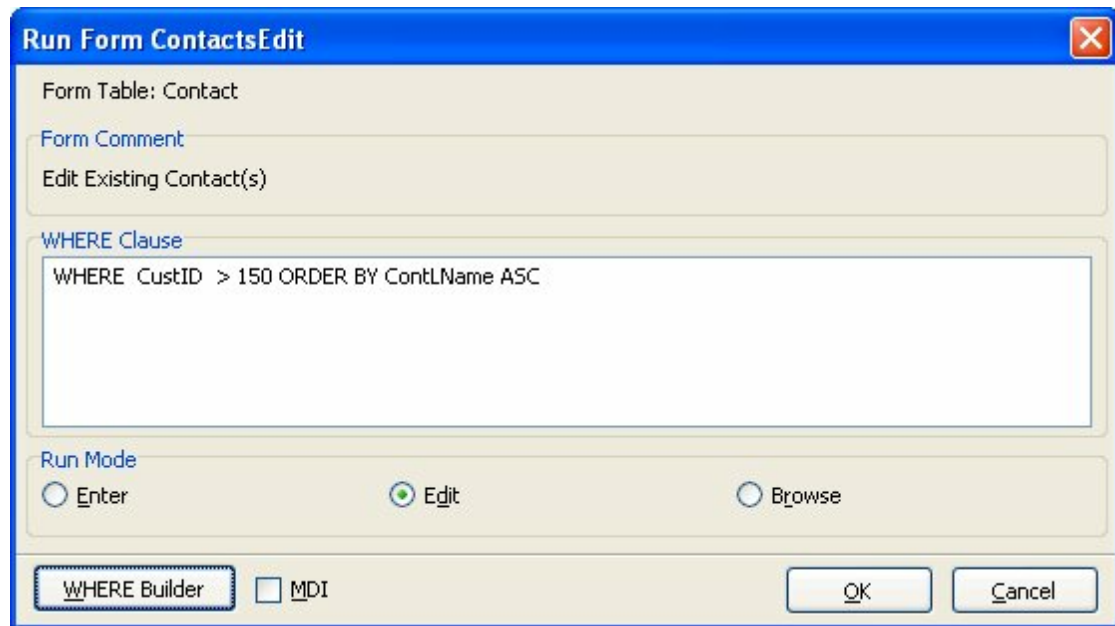
- R:BASE eXtreme 9.0 (64) for Windows (Build: 9.0.1.10701 and higher)

1.25 Update Command History

Did you know that you can update the R> Prompt Command History tool bar when running a form, printing a report, browsing a table, or when building a clause within the WHERE Builder?

Within any of the above areas, the syntax is executed through a GUI, when using the full version of R:BASE eXtreme 9.1 (32/64). An added option is now available to update the R> Prompt Command History, allowing end-users or developers to easily reference the command syntax.

A "Update Command History" check box is visible within the following:



Run Form ContactsEdit

Form Table: Contact

Form Comment

Edit Existing Contact(s)

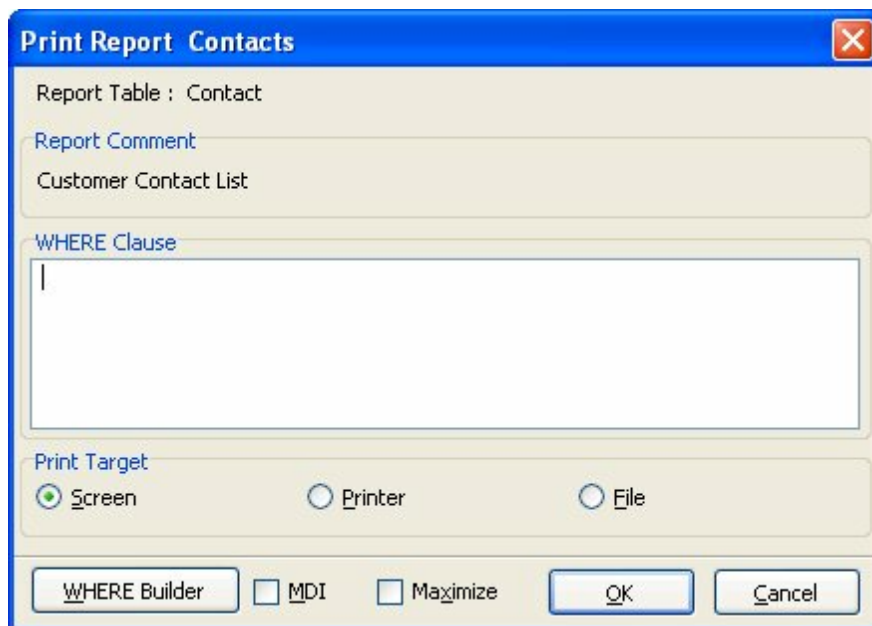
WHERE Clause

```
WHERE CustID > 150 ORDER BY ContLName ASC
```

Run Mode

Enter Edit Browse

MDI



Print Report Contacts

Report Table : Contact

Report Comment

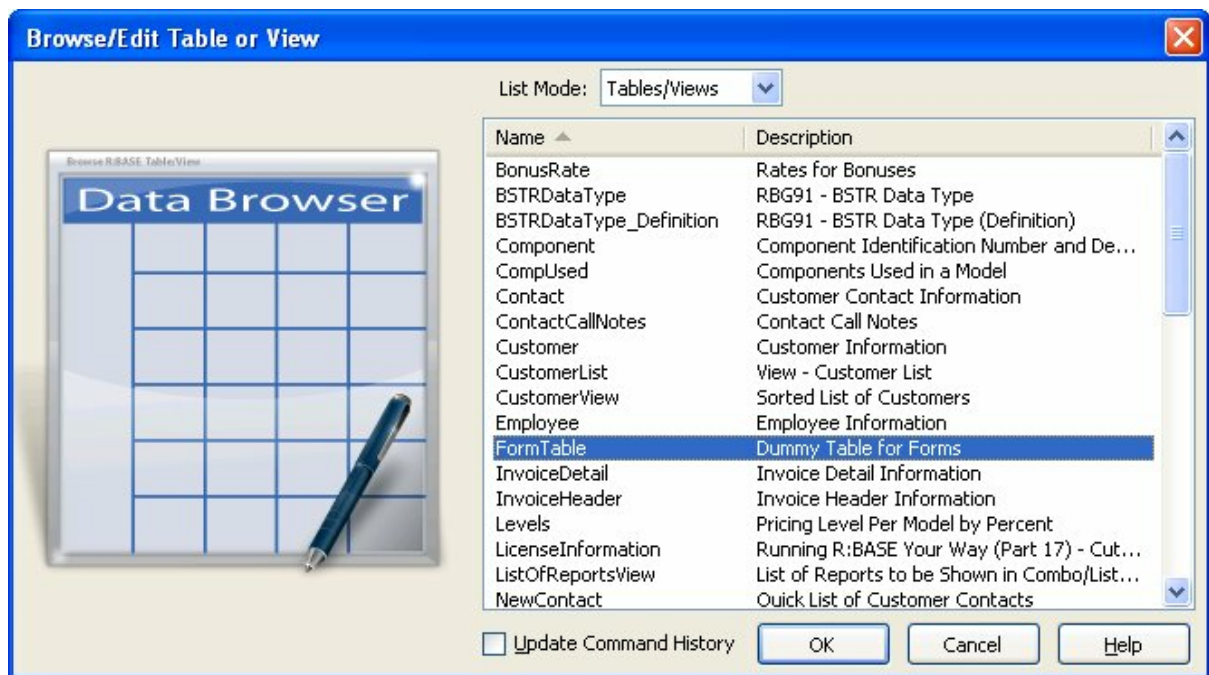
Customer Contact List

WHERE Clause

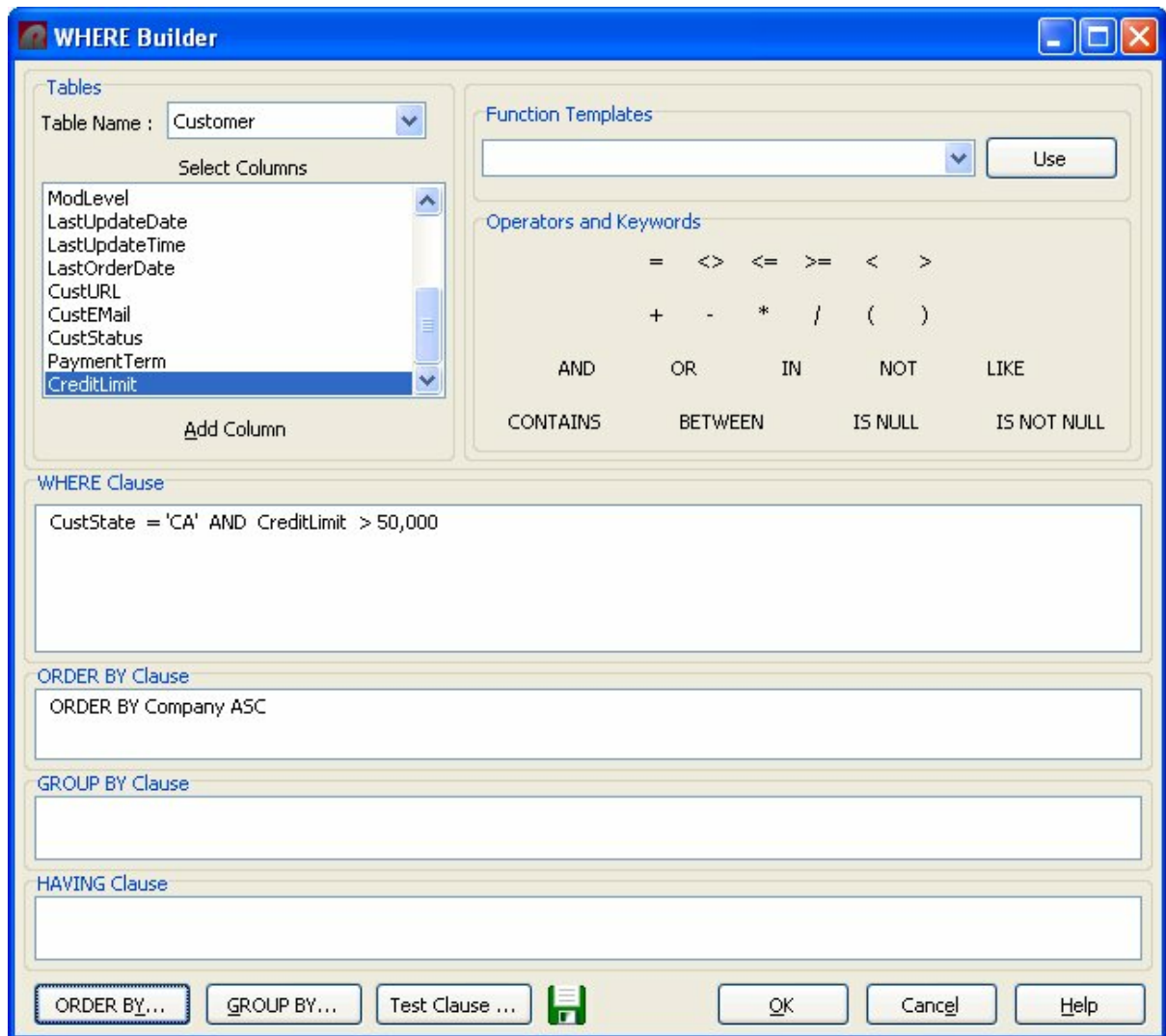
Print Target

Screen Printer File

MDI Maximize



A green diskette button is visible within the Where Builder:



Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.5.11212 or higher)

1.26 Upgrading from R:BASE 7.6/Turbo V-8 for Windows to R:BASE eXtreme 9.x (64)

If you wish to upgrade from R:BASE 7.6/Turbo V-8 for Windows to R:BASE eXtreme 9.0 (64), use the following simple steps:

01. Start R:BASE 7.6/Turbo V-8 for Windows
02. At the R> Prompt:

```
DISCONNECT
CONNECT dbname
SET NULL -0-
OUTPUT dbname.all
UNLOAD ALL
OUTPUT SCREEN
EXIT
```

03. Start R:BASE eXtreme 9.0 (64) and switch to the folder with previous database and dbname.all and dbname.lob files.

04. At the R> Prompt:

```
SET FEEDBACK ON
RUN dbname.all
```

Watch your database being built in R:BASE eXtreme 9.0 (64).

05. Your new RBASE eXtreme 9.0 (64) database will include the following four files.

- dbname.RX1
- dbname.RX2
- dbname.RX3
- dbname.RX4

All your working R:BASE 7.6/Turbo V-8 for Windows applications, command files, and routines should work accordingly.

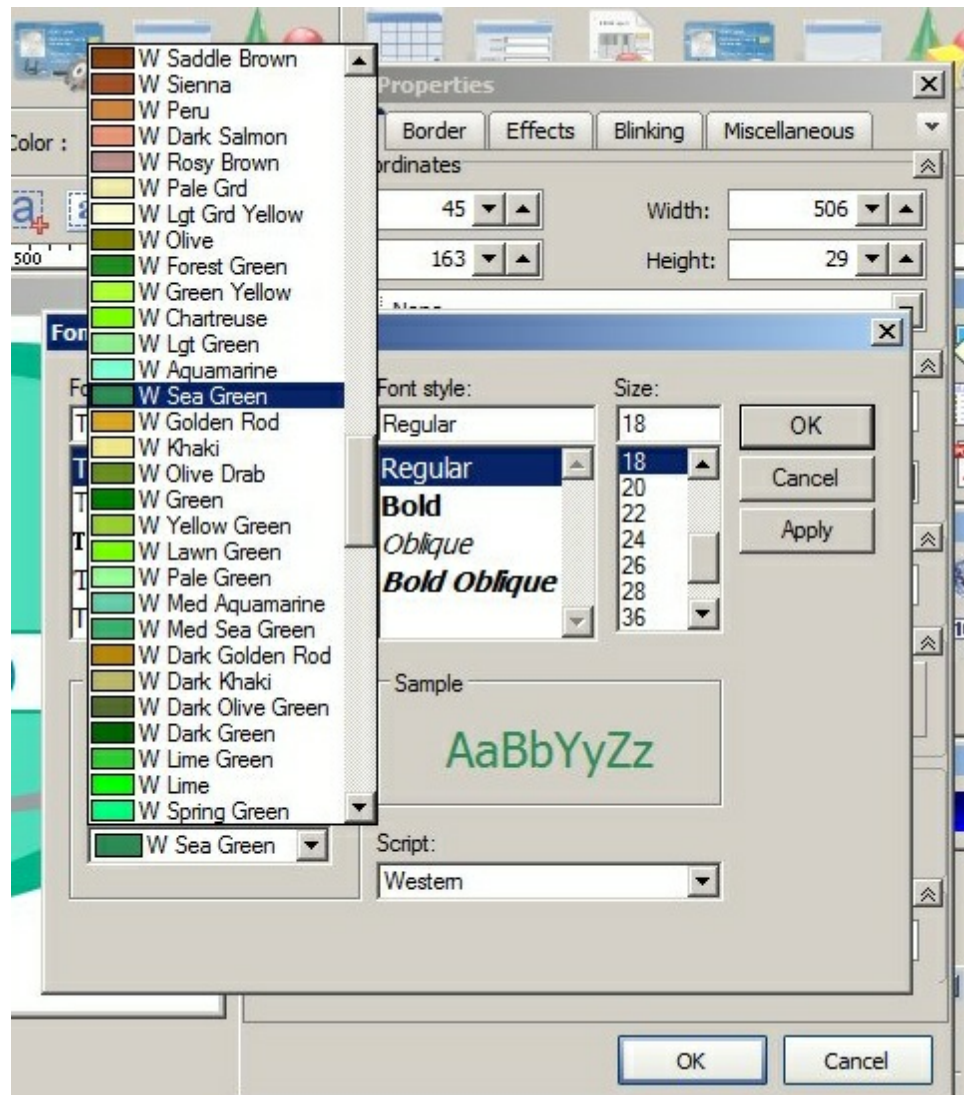
After upgrading to R:BASE eXtreme 9.0 (64), you can take advantage of all bug fixes, enhancements, and most importantly the built-in tools and features, not to mention the completely re-designed interface, development environment and the enhanced R:BASE Engine!

1.27 Using Expanded Color Template

The Data Dictionary [F3] Key in R:BASE eXtreme 9.1/9.5 (32/64) provides the option to choose a color from the list of expanded colors.

While programming and customizing applications, if you wish to use custom font color, background color, for CHOOSE, DIALOG, or PAUSE commands you can press the [F3] key to open the Data Dictionary, select the color and then either double-click for single item or [OK] button for multi-select items.

Did you know that now you can select all 188 colors from the "Font" Control Panel while in Form, Label, or Report Designer?



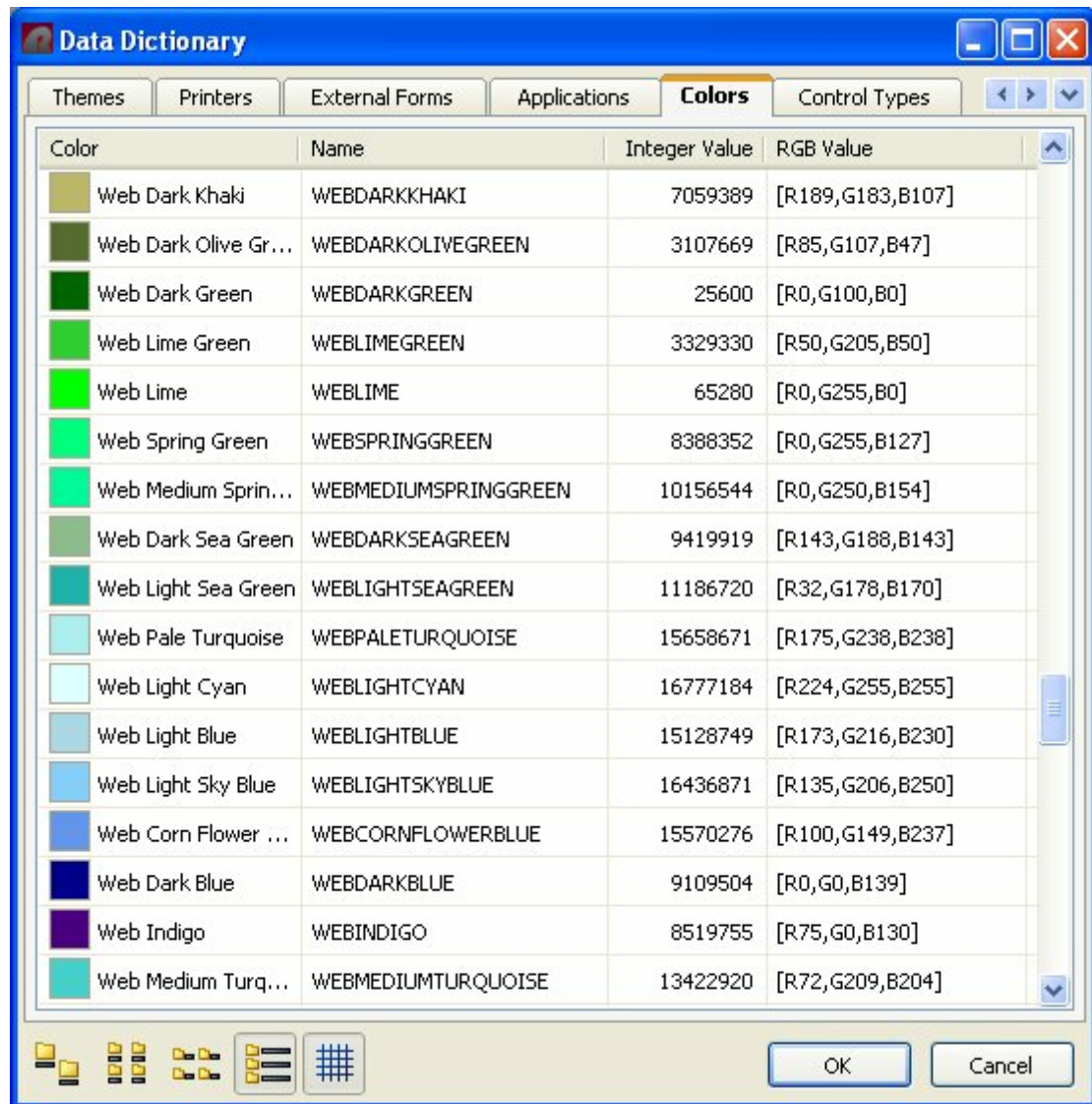
Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.5.11111 or higher)

1.28 Using Extended Colors

Did you know that you can use the extended colors defined in R:BASE eXtreme 9.0 that can be accessed while in Form, Label or Report Designers?

You can also use enhanced Data Dictionary [F3] key to access the complete list of colors along with Displayed Color, Name, Integer and RGB value.



Supported Versions:

- R:BASE eXtreme 9.0 for Windows (Build: 9.0.1.10701 and higher)

1.29 Using Custom Themes in R:BASE eXtreme

Did you know that you can integrate your own custom theme in R:BASE eXtreme 9.0?

There are **86** (35 old + 51 new) pre-defined themes available in R:BASE eXtreme 9.0. These themes can be applied to Internal Forms, External Forms (.rff), Applications (.rba), the Print Preview window, CHOOSE, DIALOG, PAUSE, PLUGIN (RCalculator), and PRNSETUP dialog windows.

Here is a list of documented themes in R:BASE eXtreme 9.0:

01. Aqua
02. BeOS
03. Blade
04. Blue Monkey
05. Bugatti
06. Catalyst

07. Celestial
08. Chrome
09. Clear Orange
10. Convergence
11. Crystal Blue
12. Dazzle
13. Elegance
14. Eternal
15. Forest Green
16. Destiny
17. Gallardo
18. Homestead
19. iTunes
20. KDE
21. Legends
22. Luna
23. Luxor
24. Metallic
25. Mind Wood
26. Mint
27. Navy
28. Office 2007
29. Panther
30. Plex
31. Prof Skin
32. QNX
33. Radiance
34. Royale
35. Sentinel Blue
36. Sentinel Green
37. Sentinel Red
38. Sentinel Purple
39. Sentinel Silver
40. Seven
41. Sniper
42. Soft Blue
43. Swing
44. Venom
45. Vienna
46. Vista CG
47. Vista New
48. Water Color
49. Windows Media Player 11
50. Wood
51. Yrgen Style

If that is not enough, now you can integrate your own custom theme in R:BASE eXtreme 9.0!

Here's how:

01. Create a separate folder, such as "Styles" under the same folder with your database and application (s).
02. Copy your own custom designed theme (themename.msstyles) file in "Styles" folder.
03. Use the following PROPERTY command to load your custom designed theme in your application startup or RBASE.DAT file.

```
-- Load Theme
PROPERTY LOAD_THEME 'themename' 'Styles\themename.msstyles'
-- your additional code here
RETURN
```

04. Use the following PROPERTY command to release your custom designed theme from memory, such as application EXIT routine.

```
-- Release Theme
```

```
PROPERTY RELEASE_THEME 'themename' 'TRUE'
RETURN
```

05. Use the following PROPERTY command to change custom theme.

```
-- Change Theme
PROPERTY CHANGE_THEME 'themename' 'filepathandname'
RETURN
```

Example:

```
PROPERTY CHANGE_THEME NewLuna 'Styles\LunaXP.msstyles'
RETURN
```

After this command is issued, the theme NewLuna will use the styles defined in the LunaXP.msstyles file. This command parameter is provided to alter the theme file, and to avoid changing the specified "theme name" is every location within the code.

06. In a compiled application, you may embed your custom themes as built-in resource without including external files.

From the R:Compiler 9.0 interface, choose the "Additional Resources" option, select the "Themes" tab, and select the "Add Themes ..." or "Load Theme(s) from Library..." buttons.

Notes:

- All previously defined Forms which are redefined to use Themes should be thoroughly checked prior to putting into production, as objects and text may look substantially different.
- To review all Themes in a live form, run the "Dynamic R:BASE eXtreme 9.0 Theme Selector" form, RBG90_ThemeSelctr, within the RRBYW16 sample database (bundled with full installation) of R:BASE eXtreme 9.0 (32) and (64).

Supported Versions:

- R:BASE eXtreme 9.0 (Build: 9.0.1.10511 or higher)

1.30 Using the #NOW System Variable

Did you know that in addition to #DATE, #TIME, #PI, SQLCODE, and SQLSTATE, now you also have an additional #NOW system variable?

Example 01:

```
SHOW VARIABLES
```

Among other system variables, such as #DATE, #TIME, #PI, SQLCODE, and SQLSTATE, #NOW will also be included when using the SHOW VARIABLES command at the R> prompt.

Example 02:

```
SET VAR vCurrentDateTime = .#NOW
```

The resulting variable vCurrentDateTime will return current date time with DATETIME data type.

Example 03:

```
UPDATE tablename SET datetimetypename = .#NOW WHERE ...
```

Will update the datetimetypename with DATETIME data type with current date and time value.

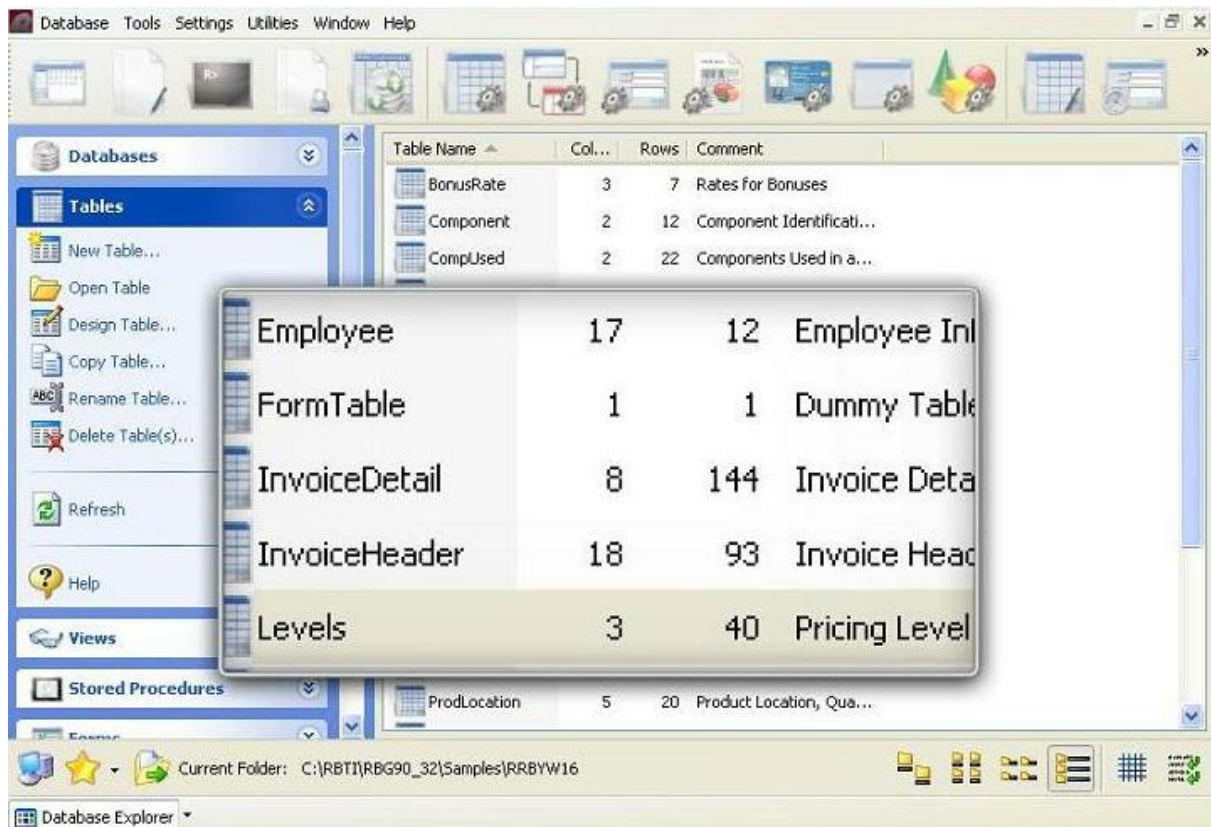
Example 04:

```
INSERT INTO tablename (Colname1, Colname2, Colname3) +
VALUES .vColumnValue1, .vColumnValue2, .#NOW
```

1.31 Using the Magnifying Glass

Did you know that you can use the Magnifying Glass to zoom any object, text, or even Expression Window when defining a complex expression while in Form, Label, or Report Designer? R:BASE eXtreme 9.0 (32/64) includes an option to use a cool Magnifying Glass on demand.

To display the Magnifying Glass in R:BASE eXtreme 9.0, select "Utilities" > "Magnifying Glass" from the Menu Bar.



Did you know that you can expand the horizontal and vertical size of the Magnifying Glass by grabbing the corner or edge of the transparent glass displayed at the center of the screen?

Tips:

- [Ctrl]+[Alt]+M will launch the built-in Magnifying Glass (anywhere)
- [Esc] or "Right-Click | Close" will close the Magnifying Glass
- Right-Click will provide the option to zoom (2x, 4x, 8x, 16x)

Supported Versions:

- R:BASE eXtreme 9.0 for Windows (Build: 9.0.1.131028 and higher)

1.32 Using the Enhanced Data Dictionary [F3] Key

While writing or editing embedded EEPs in Forms, Labels, Reports, or External Form Files (.eff), or even writing code using the built-in editor, do you sometimes wish that you knew the exact names of all installed printers, databases in the current folder or names of all available External Form files so that you can simply copy and paste the values to avoid guess work.

Did you know that you can use the enhanced Data Dictionary [F3] key to find the exact names of installed printers, databases, and all External Form Files in the current folder?

When you **ARE NOT** connected to any database, the following options are available when pressing the [F3] key:

- Databases
- Variables
- Functions
- Themes
- Control Types
- Printers
- External Forms

When you **ARE** connected to any database, the following options are available when pressing the [F3] key:

- Databases
- Tables
- Columns
- Variables
- Views
- Forms
- Form Component IDs (while in form designer)
- Form Actions (while in form designer)
- Reports
- Report Component IDs (while in report designer)
- Labels
- Label Component IDs (while in label designer)
- Functions
- Stored Procedures
- System Tables
- System Columns
- Themes
- Control Types
- Printers
- External Forms

Double clicking on one single item or pressing the [Enter] key on a selected item will copy and paste the items at the R> Prompt input console or editor.

Click+Ctrl+Click will select multiple items. Then, clicking on the [OK] button or simply pressing the [Enter] key will copy and paste all selected items at the R> Prompt input console or editor.

[Shift + F6] will select all items. Pressing the [Enter] key will copy and paste all selected items at the R> Prompt input console or editor.

Selecting the desired function from the [Functions] tab and then double clicking on one single item will copy and paste the syntax at the R> Prompt input console or editor.

Supported Versions:

- R:BASE 7.6 (Build 7.6.3.30418 or higher) for Windows
- R:BASE C/S:I 7.6 (Build 7.6.3.30418 or higher) for Windows
- R:BASE Turbo (Build 8.0.17.30418 or higher) for Windows

1.33 Using the Enhanced MAPIMail Plugins with Thunderbird

There are several steps required to use the enhanced R:BASE MAPIMail Plugins with Mozilla Thunderbird:

First, you must alter your Windows operating system setting for your default email program as follows:

1. Select the "Start" button, and choose "Settings" > "Control Panel" > "Add/Remove Programs"
2. Click on "Set Program Access and Defaults" button on the left panel.
3. Select the "Custom" radio button.
4. Click on the "down arrow" characters to expand the available options.
5. Select the "Mozilla Thunderbird" radio button under "Choose a default e-mail program".
6. Click on the "OK" button to save your changes.

Next, you must update the Windows Registry in order to make sure that the MAPI protocol is installed:

1. Select the "Start" button for your Windows operating system, and choose "Run".
2. Enter "REGEDIT" into the field, and the Registry Editor will launch.
3. From the list on the left panel, select the value: HKEY_LOCAL_MACHINE.
4. Within the tree view, select sub categories "SOFTWARE" > "Microsoft" > "Windows Messaging SubSystem".
5. On the right panel, verify that the value for "MAPI" does exist and is equal to 1.
6. Close the Registry Editor window.

Now, we will check certain MAPI options within Mozilla Thunderbird

1. Start the Mozilla Thunderbird email client software
2. From the main Menu Bar, select "Tools" > "Options"
3. Within this dialog window, select the "Advanced" button
4. Under the "General" tab, select the "Config Editor..." button
5. Type "mapi" into the filter to see the parameters that contain the word mapi.
6. Verify that the following parameters exist:

```
mapi.blind-send.enabled = true
mapi.blind-send.warn = false
```

The first parameter, *mapi.blind-send.enabled*, will likely already exist with its value set to true. The second parameter may need to be added.

1. If either parameter needs added, right click in the white space and select "New" > "Boolean".
2. Enter the parameter, i.e. "mapi.blind-send.warn", and select the "OK" button.
3. From the true/false options, choose the appropriate value based upon what is listed above for that parameter.
4. In order to verify your new parameter, click the "Show All" button, and reenter the "mapi" filter.

Finally, you use the Enhanced MAPIMail Plugins (included with Update 1 of the R:BASE Plugin Power Pack).

1. Copy the following MAPIMail Plugins into the appropriate R:BASE program directory or compiled application directory. Here are the file names and the differences between the Plugins.
 - MAPIMail.RBL (interactive - appears under Utilities > Plugins within R:BASE)
 - MapiMail2.RBL (automated - opens the MAPIMail dialog window and displays the defined parameters)
 - MapiMail3.RBL (automated - opens the default email client and displays the defined parameters)
 - MapiMail4.RBL (automated - sends the email message automatically)
2. Using the automated Plugin parameters

Syntax:

```

PLUGINS MapiMail2.rbl vMail |<parameters>
PLUGINS MapiMail3.rbl vMail |<parameters>
PLUGINS MapiMail4.rbl vMail |<parameters>

```

Parameters:

TO:	specifies the list of recipients of the message
CC:	specifies the list of carbon copy recipients of the message
BCC:	specifies the list of blind carbon copy recipients of the message
SUBJECT:	specifies the subject string for the message
BODY:	specifies the body content of the message
ATTACHMENTS:	specifies the list of files to be send along with the message
PROFILE_NAME:	specifies a Profile to be used by the Messaging API when the Send method is called. Typically, this parameter is left blank which instructs MAPI to use the default profile.
PASSWORD:	specifies the password to be used during the logon process
SENDDIRECT:	specifies the setting for the "Send Directly" check box (TRUE/FALSE)
RESOLVE_NAMES:	specifies the setting to resolve a message recipient's name (as entered by a user) to an unambiguous address list entry, optionally prompting the user to choose between possible entries, if necessary. (TRUE/FALSE)

Where:

vMail is the text variable to return the status, such as 'OK' or the exact -ERROR- message

Notes:

Returned variable name and the exact file name with path must be separated by a "|" pipe symbol.

Supported Versions:

- R:BASE 7.6 (Build 7.6.3.30425 or higher) for Windows
- R:BASE C/S:I 7.6 (Build 7.6.3.30425 or higher) for Windows
- R:BASE Turbo (Build 8.0.17.30425 or higher) for Windows

1.34 Using SCALEBY Property in R:BASE Application (.RBA)

Did you know that now you can use the SCALEBY property to dynamically adjust your application's main window or form based on a given screen resolution?

Syntax:

```
PROPERTY RBA_FORM SCALEBY 'nnnn'
```

Use this property to automatically scale an R:BASE Application (.RBA) form and all related controls to a specified screen pixel width. SCALEBY property modifies the Height and Width properties of the form and all controls placed on it, but it does not change the Top and Left properties; therefore, the size of the controls changes, but not the coordinates of the top-left corners of the controls. Thus, it preserves the position of all controls on the form.

If you have developed an R:BASE Application (.RBA) form that is 800x600 for the majority of users having a monitor with 800x600 screen resolution to fit the form on the entire available screen, but a few users of your application have a higher resolution (1024x768) and if you wish your 800x600 form to fill the entire screen of a monitor with a resolution of 1024x768, you'll need to use the RBA_FORM SCALEBY property as follows:

Example:

```
-- Application: On After Start Action
PROPERTY RBA_FORM SCALEBY '800'
```

RETURN

This will scale the original form designed as 800x600 to fill the entire screen even if the screen resolution is higher than 800x600, such as 1400x1050, 1280x800 or 1024x768.

Notes:

- The 'nnnn' value should exactly be the same as the original "form width" in order to scale proportionally on the monitors with higher resolution.
- Use the SCALEBY property as embedded custom EEP in "On After Start" Action for R:BASE Application (.RBA) file.
- To take advantage of this feature, make sure that you use the scaled true type fonts for all controls on that form.

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.5.31229 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.5.31229 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.19.31229 or higher)
- R:BASE eXtreme 9.0 for Windows (Build: 9.0.1.11229 or higher)

1.35 What Version of Engine DLL, and Files In Use?

Did you know that you can determine the exact version of the R:BASE eXtreme 9.0 Engine DLL, and all related Windows DLLs that are being used with your currently installed R:BASE eXtreme 9.0?

Here's how to determine the specific version of Engine DLLs are being used with your R:BASE eXtreme 9.0:

1. Start RBG90 (32 or 64)
2. From the main window, select "Help" > "File Versions..." from the main Menu Bar.

Notice a list of all DLLs, and Plugins if loaded, along with details including Name, Version, Size, Company, and Path.

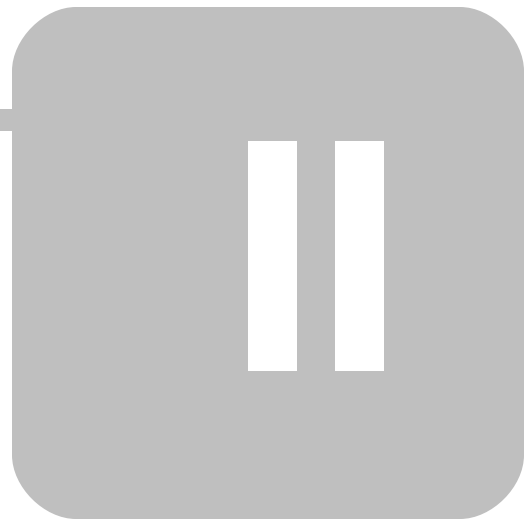
You may select to Print the list to the following:

- Printer
- Text File
- PDF File
- Clipboard

Supported Versions:

- R:BASE eXtreme 9.0 for Windows (Build: 9.0.1.10701 and higher)

Part



2 Settings

2.1 Assigning Default Component IDs for Form, Label, and Report Controls

Did you know that while in the Form, Label or Report Designer, placing a new control can also assign a default Component ID to that particular control?

Of course, you can always overwrite the default name assigned, if you wish.

This enhancement is implemented to ameliorate the use of the PROPERTY and GETPROPERTY commands.

To incorporate this cool feature, you must first enable the check box for "Add Default Component ID" within your Form, Label, and Report Default Settings.

For the Form Designer, select "Settings" > "Form Designer" from the main Menu Bar. Within the "Form" tab, notice the "Add Default Component ID" option.

For the Report/Label Designers, select "Settings" > "Report/Label Designer" > "Default Settings" from the main Menu Bar. Within the "General" tab, notice the "Add Default Component ID" option.

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.4.30728 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.4.30728 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.18.30728 or higher)

2.2 Automating the Directory for SCRATCH Files

Did you know that you can automate the default directory for the R:BASE/OTERRO Scratch files without knowing the user's rights to their temporary directory?

SET SCRATCH sets the drive and directory location for temporary files created when sorting data.

- SET SCRATCH ON - stores temporary sort files on the database drive and directory.
- SET SCRATCH OFF - stores files on the current drive and directory.
- SET SCRATCH <path> - provides the path to the location where temporary files are stored.

The latest builds of R:BASE and Oterro include the enhancement to simply type "TMP" for SCRATCH option in your configuration file.

```
SET SCRATCH TMP
```

Updating the SCRATCH setting to TMP in the appropriate configuration files, R:BASE/OTERRO will use the user's TMP environment settings for SCRATCH files on startup.

Using the latest builds of R:BASE/OTERRO, you need to either update the line for "SCRATCH TMP" to automatically define the windows temporary environment or use "SCRATCH C:\TEMP", for example, in R:BASE/OTERRO configuration files. If you define the "SCRATCH C:\TEMP", make sure that you actually have the C:\TEMP directory. We suggest that you keep all configuration (*.CFG) file in Windows or WinNT directory.

This option is also helpful when you establish a universal naming convention (UNC) network connection for R:BASE database as a System DSN defined with UNC, such as "\\FileServerName\SharedDirectoryName\dbname.rb1". This type of environment requires you to sure that you have also set the path for R:BASE and OTERRO temporary SCRATCH files.

Use any text editor or R:BASE Editor to edit the configuration file to read SCRATCH settings as follows:

SCRATCH TMP

Configuration Files:

- RBEEngine.CFG (R:BASE 7.1 for Windows)
- RBEEngine75.CFG (R:BASE 7.5 for Windows)
- RBEEngine76.CFG (R:BASE 7.6 for Windows)
- RBEEngine8.CFG (R:BASE Turbo V-8 for Windows)
- Oterro.CFG (Oterro 3.1 for Windows)
- Oterro35.CFG (Oterro 3.5 for Windows)
- Oterro8.CFG (Oterro 8.0 for R:BASE V-8 "Turbo" Database)

This will help eliminate all issues related to the access rights, disk space and so on, when running R:BASE/OTERRO on enterprise servers and when accessing R:BASE database defined as a System DSN using the UNC option.

2.3 Cleaning Scratch (.\$\$\$) Files on Exit

Did you know that you can have R:BASE clean any remnants of temporary (.\$\$\$) scratch files, on exit? Here's how:

From the R:BASE main Menu Bar, select "Settings" > "Clean Scratch Files on Exit".

Checking this option will clean any remnants of temporary (.\$\$\$) scratch files, on exit.

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.4.30808 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.4.30808 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.18.30808 or higher)
- R:BASE eXtreme for Windows (Build: 9.0.1.30808 or higher)

2.4 Customizing Default Printer Settings

Did you know that among many default settings, now you can also set the default settings for your Report Printer, Paper Size and Paper Source?

Here's how:

1. Database Explorer > Settings > Report/Label Designer > Default Settings
2. Click on [Printer] tab and select the default Printer for report
3. Click on [Paper Size] tab to select the default Paper Size
4. Click on [Paper Source] tab to select the default Paper Source

These default settings are for your local workstation and will be effective for designing new reports only.

2.5 Customizing Hints

Displaying hints on your cool custom-designed forms, external forms, or even from the R:BASE Database Explorer can be very helpful for the end user.

Until now, you had the option to set background color, font, font style, font size, font effects, font color, and the time (in milliseconds) to display and hide the hint. The entire hint displays in a balloon.

What if your end-users don't like the hint embedded in the balloon? What about adding a balloon hint with an appropriate icon to display the nature of the hint?

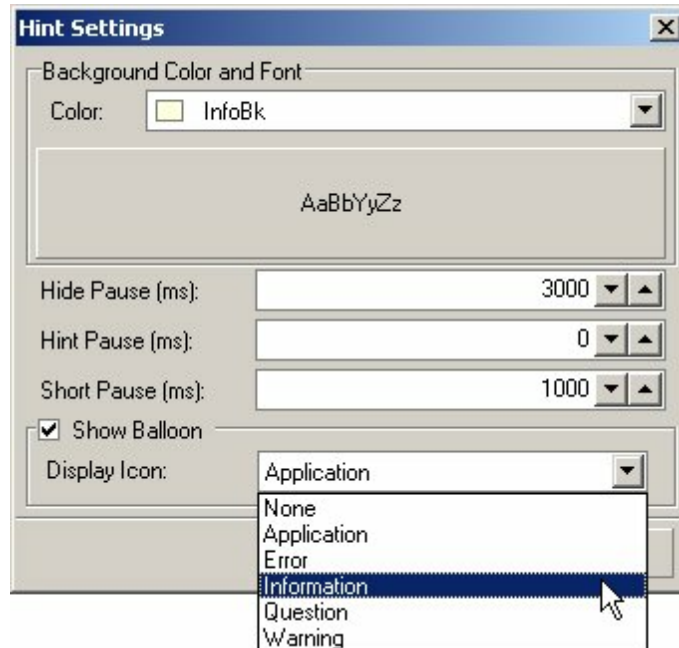
Did you know that you can now customize the hint settings to display hints with or without a balloon along with the option to use the appropriate icon when used with balloon?

Here's how:

1. Start R:BASE 7.6, C/S:I 7.6 for Turbo V-8 for Windows
2. Customize Hint Settings

Select "Settings" > "Hint Settings..." from the Menu Bar.

Notice the following options for Hint Settings:



- *Background Color and Font* - specifies the background color and text font, color and style
- *Hide Pause (ms)* - specifies the time interval for the hint to be displayed on the screen
- *Hint Pause (ms)* - specifies the time interval for the hint to appear after the cursor first moves over the control (default 5000)
- *Short Pause (ms)* - specifies the time interval for the hint to appear after the cursor leaves and immediately returns to the same control (default 0)
- *Show Balloon* - specifies whether the hint is encompassed within a balloon (default 500)
- *Display Icon* - specifies what, if any, icon is included in the hint balloon

3. If you wish to remove the balloon for hints, simply un-check the option for Show Balloon.
4. If you wish to display the balloon hint with no icon, check the option for "Show Balloon" and select "None" from the list of available Display Icons
5. If you wish to display the balloon hint with an icon, check the option for "Show Balloon" and select one of the following icons from the list of available Display Icons.
6. Click the "OK" button to save the Hint Settings.

These hint settings will be saved for this workstation.

2.6 Customizing WALKMENU Time Interval Settings

Did you know that you can customize the WALKMENU Time Interval Settings to match your typing speed?

R:BASE now includes a Walkmenu Time Interval Setting to control the WALKMENU speed for CHOOSE, ListBox, ComboBox and Pop-up Menus.

1. Start R:BASE
2. Database Explorer > Main Menu > Settings ...
3. Select Walkmenu Time Interval ... and enter the value (default value is set to 1500 ms.)

The time interval value must be specified in milliseconds.

For example:

1000 for 1 second
1500 for 1.5 seconds

Using the command file or in an EEP, you may also control the WALKMENU time interval setting by using the PROPERTY command.

Example:

```
SET WALKMENU ON
PROPERTY APPLICATION WALKMENUTIMEINTERVAL nnnn
```

About WALKMENU:

SET WALKMENU ON allows the user to access list item selections by typing the beginning characters (up to when a match is made) of their names.

2.7 Disabling TRACE in Forms, Labels and Reports

When you are close to distributing your developed R:BASE applications and are reviewing your work from a standpoint of securing your code, you may notice that the "SET TRACE ON" setting allows for the viewing of your command syntax within Form/External Form "On Before Start" EEPs and within Label/Report "Before Generate..." custom actions.

Even if the first command in that EEP is "SET TRACE OFF", the form, label or report won't trace after that command; however, all of the code can be seen by scrolling down before the F10 key is pressed.

Sure, you can password protect your form, but you don't want your users to have to enter a password every time they use the form just to keep the code safe from an unscrupulous person who happens to have R:BASE (even the trial version will trace!).

Did you know that you can disable the TRACE or ECHO by using the newly implemented option of "Disable Trace" while in Form, Label or Report Designers?

Now you can secure your code using the "Disable Trace" option. Here's how:

Forms/External Form File:

1. In Form or External Form Designer, select "Form Properties", and choose the "Miscellaneous" tab.
2. Notice the "Disable Trace" checkbox option.

Labels:

1. In the Label Designer, select "Label" from the main Menu Bar.
2. Notice the "Disable Trace" option.

Reports:

1. In the Report Designer, select "Report" from the main Menu Bar.
2. Notice the "Disable Trace" option.

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.3.30516 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.3.30516 or higher)

- R:BASE Turbo V-8 for Windows (Build: 8.0.17.30516 or higher)

2.8 Display Extended Characters

You can force R:BASE to display extended characters correctly by editing your R:BASE configuration file (.CFG). Look within the file for the Case and Collating tables. In the CFG file look for CASEP and COLLATE.

1. Based on the character that is not displayed correctly, like the Õ, capture its ASCII value, 213, from the Windows Character Map utility.
2. Within the CFG file, under CASEP and COLLATE, you may see:

```
CASEP 213 79
```

```
COLLATE 213 79
```

3. Change the 79, which is the ASCII value for the capital letter O, to 213. Then, adjust any other characters to their correct counterpart for your extended text.
4. Now, you have to PACK the Case and Collating tables at the R> Prompt with the PACK command as follows:

```
DISCONNECT  
SET MULTI OFF  
CONN dbname  
PACK ALL WITH USER CASE  
DISCONNECT  
SET MULTI ON  
CONN dbname
```

The correct values should now display correctly in the tables, forms, and reports.

You may also need to change your R> Prompt "Console Font" setting in order to use your extended characters in R> Prompt window queries.

1. From the Main Menu Bar, choose "Settings" > "R> Prompt..."
2. Select the "ASCII" radio button and select the "OK" button

2.9 Duplicating Your Personalized R:BASE Settings

When installing R:BASE eXtreme 9.1 (32/64) on your computer, the default settings are automatically installed and initiated when you first start R:BASE eXtreme 9.1. Then, you may further customize R:BASE Settings on your working desktop, including the look and feel, as well as all default settings when designing a new database, tables, forms, labels, reports, external form files, and applications as follows:

- Startup Options
- Database Explorer
- R:BASE Editor
- R> Prompt
- Data Browser
- Data Designer
- Form Designer
- Report/Label Designer
- Application Designer
- BLOB Editor
- Hint Settings
- Walkmenu Time Interval
- Default Printer Font
- Custom Colors
- Registry Settings

- Show Main Toolbar
- Warn When Closing R:BASE Session
- Show Check Box to Suppress Error Messages
- Clean Scratch Files on Exit
- Configuration Settings

These custom settings are saved and are effective when you are the same logged in user on that particular workstation. Any change in the layout afterwards is also updated immediately, including Favorite Folders.

If you are in a situation with many workstations, such as office, home, two notebooks for the road, remote client(s) workstations, etc., you will have to either customize each individual workstation to match your favorite settings, custom colors, layouts, etc., one at a time, or live with what you have and customize as you go. This is not a productive R:BASE development environment, wouldn't you agree?

Did you know that you can export your favorite R:BASE eXtreme 9.1 (32/64) settings (not including the license, of course) from one workstation to another by simply using the new "Registry Settings | Save to File" option?

Here's how:

01. Database Explorer | Main Menu | Settings ...
02. Select Registry Settings ...
03. Click on Save to File ...
04. Assign the file name and click on the [Save] button to save. The binary file will be saved as filename.bin

Keep this binary file handy when re-setting R:BASE eXtreme 9.1 settings on the same computer or duplicating your personalized settings on other computer(s). Use "Load From File ..." option to load settings.

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.4.11012 or higher)

2.10 Handling Form/Report/Label Designer -ERROR-Messages

Did you know that you can pre-define all required global variables for Forms, Reports and Labels within the Form, Report or Label Designer?

To avoid any inconvenience the next time you open the form, report or label with -ERROR- messages related to missing global variable(s) in expression, a new "On Before Design Action..." has been implemented for Form, Report and Label Designers to pre-define all required variables with appropriate data types before opening the form, report or label in designer.

Here's how:

Form Designer | Layout | On Before Design Action...

Report Designer | Report | Actions | On Before Design...

Label Designer | Label | Actions | On Before Design...

2.11 Taking Advantage of the SCRATCH Setting

The SCRATCH setting allows the current R:BASE session to store all temporary sort files on the drive and directory based on the SCRATCH setting.

Syntax:

```
SET SCRATCH <value>
```

Supported values: ON, OFF, TMP, or <fullpath>

SET SCRATCH ON will store temporary sort files on the database drive and directory.

SET SCRATCH OFF will store temporary files on the current drive and directory.

SET SCRATCH TMP will store temporary files in Windows' User Environment TMP folder.

SET SCRATCH <fullpath> will provide the path to the location where temporary files could be stored.

By default, the R:BASE/OTERRO configuration files, such as RBEngine.CFG, RBEngine75.CFG, RBEngine76.CFG, RBEngine8.CFG, OTERRO.CFG, OTERRO35, OTERRO8.CFG, and RBASE76.CFG) include the keyword TMP for the SCRATCH setting. Using the typical installation option of R:BASE or OTERRO the appropriate configuration file is installed in the "Windows" folder.

The default keyword (TMP) allows R:BASE or Oterro sessions to use the Windows' User Environment TMP Variable setting for SCRATCH files on startup. This will also eliminate all issues related to setting the SCRATCH directory and related files.

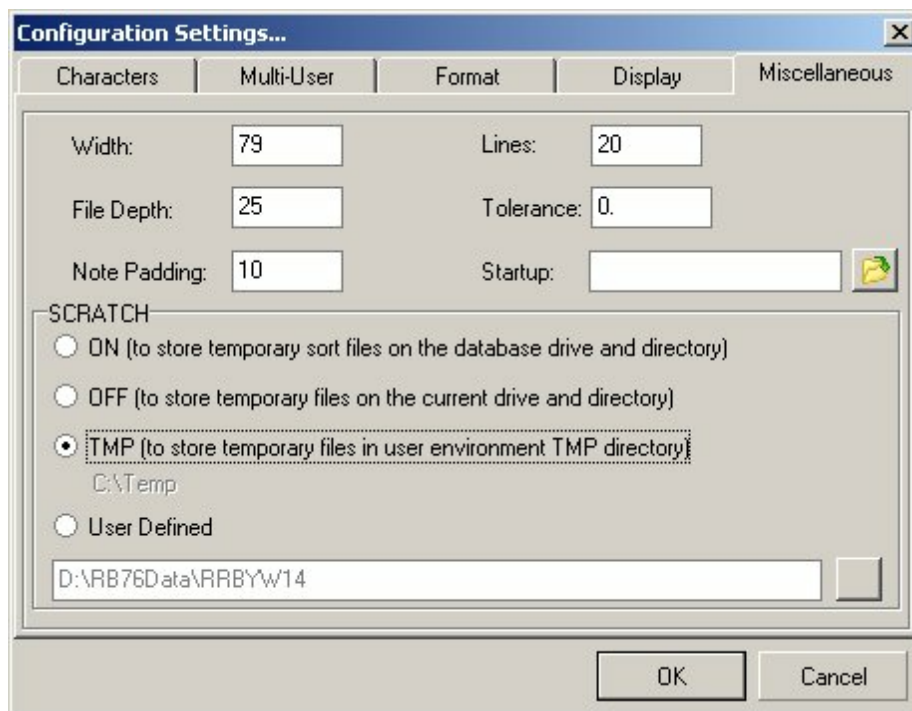
This default setting also enables R:BASE/OTERRO to write scratch files without being concerned about read, write, and delete permissions on the network/local folders.

To take advantage of this setting, use the option "SCRATCH TMP" in the appropriate R:BASE and OTERRO configuration files or use the "SET SCRATCH TMP" command in your application startup files.

Did you know that you can use "SET SCRATCH TMP" command at the R> prompt or in your application startup file?

Using the latest updates of R:BASE 7.6, C/S:I 7.6 and Turbo V-8 for Windows, you can. Previously, "TMP" option could only be used in the configuration (.CFG) files.

You can also use the enhanced "Configuration Settings" panel to define SCRATCH settings. From the R:BASE Menu Bar, select "Settings" > "Configuration Settings":



(R:BASE 7.6)

Supported Versions:

- R:BASE 7.6 (Build 7.6.2.31221 or higher) for Windows
- R:BASE (C/S:I) 7.6 (Build 7.6.2.31221 or higher) for Windows
- R:BASE Turbo (Build 7.6.2.31221 or higher) for Windows

2.12 Using Conditional TRACE in a Command File

Did you know that you can use the conditional TRACE in a command file or EEP to just debug a block of code?

A new conditional SET TRACE ON/OFF option has been implemented to execute TRACE (Interactive Command File Debugger) inside a command file or EEP to trace a block of code as defined.

Syntax:

```
SET TRACE ON/OFF (Default is ON)
```

Example 01: (typical command line option)

```
TRACE filename.ext
```

Example 02: (in a command file)

```
-- start
Your code here ....

SET TRACE ON {this will start the trace within a command file}

Your code here ...

SET TRACE OFF {this will stop the trace within a command file}

Your remaining code here ...
-- end
```

Notes:

- Once you turn OFF the TRACE in an R:BASE session, you will need to turn it back ON.
- (CVAL('TRACE')) will return the current status of TRACE (Values: ON or OFF)
- SHOW TRACE will display the current status of TRACE (Values: ON or OFF)
- Newly created R:BASE configuration files (.CFG) will include the option for TRACE ON
- If you want no one to TRACE your code, setting the TRACE option to OFF at the beginning

2.13 Using Double-Click to Bring Up the Designers

Did you know that you can double-click on any Table, View, Stored Procedure, Report, Label, Form, External Form File, Application, or Command File to bring up the appropriate item in the corresponding designer?

After connecting to a the database and using the Database Explorer, traditionally, you would first highlight the appropriate Table/View/Stored Procedure/Report/Label/Form/External Form File/Application/Command File and then right click to access the speed menu or click on the "Design" option to open the selected item in its designer.

By default, double-click is used to "Open" or "Run" selected item. However, if you wish to simply double-click on the item to open it within its designer, all you need to do is customize the Database Explorer settings.

Here' how:

```
Database Explorer > Main Menu > Settings ...
Click on "Double Click Open Designer" option to Select
```

These custom settings are specific to the logged in user only. Using these custom settings, you can run R:BASE Your Way!

2.14 Using R:BASE Executable Startup Options

R:BASE for Windows supports several Startup Options that you can embed in the desktop shortcut Icon.

Available Options:

- **-A**
- **"-BLOB <filename>"**
- **-C**
- **-E**
- **"-E <filename>"**
- **-L**
- **-O**

-A This option tells R:BASE to look in the RBG7.EXE program directory first for the RBENGINE files. This option is beneficial if you are making only one installation of R:BASE on a network server and want local workstations to be able to launch the R:BASE 7.x program remotely without the need to install it on the local workstation.

"-BLOB <filename>" This option opens the specified file in the R:BASE BLOB Viewer/Editor when the program is launched. Note that there is a single space between the RBG7.EXE and the BLOB and file name parameter, and that the -BLOB file name must be enveloped in double-quotes.

-C This option opens the R> Prompt window when the program is launched.

-E This option opens the R:BASE Editor when the program is launched.

"-E <filename>" This option opens the specified file in the R:BASE Editor when the program is launched. Note that there is a single space between the R:BASE executable and the E file name parameter, and that the -E and file name must be enveloped in double-quotes.

-L This option opens the Database Explorer when the program is launched.

-O This option specifies an alternate R:BASE configuration file (.CFG) file to use for startup information.

2.15 Warning When Changing Table Structure

Previous updates of R:BASE eXtreme 9.1 (32/64) for Windows included an enhancement request to warn the user when accessing and managing the table structure (RBDEFINE), in a multi-user connected database environment, using the Database Explorer.

Did you know that now you can turn off that -Warning- message, if you are a veteran and know what you are doing, taking full responsibility for accessing or managing table structure in a multi-user environment?

Here's how:

01. Start R:BASE eXtreme 9.1

02. Database Explorer | Main Menu | Settings | Data Designer ...

Notice the option for "Warn When in Multi-User Environment"

03. Un-Check this option to turn off the warning message.

The default installation is always set to checked.

Now you can have your cake and eat it too.

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.4.11012 or higher)

2.16 Warning When Closing an R:BASE Session

Have you ever been in a situation with many opened R:BASE sessions on your normal or extended desktop (because you can), and then mistakenly clicked on the close [x] icon of the R:BASE Database Explorer, closing the session (as it should), and you wished it would have warned you if you really wanted to close that session of R:BASE?

Now R:BASE includes a "Setting..." to prompt you if you really want to close an R:BASE session when clicking on the [x] close window icon of the Main Database Explorer.

Here's how:

1. Start R:BASE
2. Database Explorer|Main Menu|Settings

Check the Setting for:

Warn When Closing R:BASE Session (the default is set to Off - unchecked)

3. Now close the R:BASE session by clicking on the [x] and close window icon on the Main Database Explorer window.

Notice the confirmation dialog box?

"Do you really want to close this R:BASE session? [Yes] [No]"

Part



3 R> Prompt

3.1 Copying/Pasting Multiple Line Code

When copying your complete code with multiple lines and continuation symbols such as "+" at the R> prompt, it can be tedious to take out all the plus characters and turn the entire code as one line for the R> prompt to execute properly.

For example, a command looks like the following when typed in REdit or the R:BASE Editor 7.6.

```
CHOOSE vWhereCluase FROM #WHERE IN Customer +
OPTION THEMENAME R:BASE Rocks! +
|WHERE_CLAUSE WHERE CustState IS NOT NULL +
GROUP BY CustState HAVING COUNT(CustState) > 1
```

If you copy and past the above command, with multiple lines and continuation characters at the R> prompt, it will be copied exactly as is. Then, you would have to eliminate the "+" characters before pressing the [Enter] key to execute the command.

Did you know that you use the [Shift]+[Ctrl]+[Alt]+[C] keys to copy the entire block, then paste it at the R> prompt as one single line without the continuation "+" characters?

Using the [Shift]+[Ctrl]+[Alt]+[C] keys eliminates the continuation "+" characters at the end of each line when pasted.

Supported Versions:

- R:BASE 7.6 (Build 7.6.2.30102 or higher) for Windows
- R:BASE C/S:I 7.6 (Build 7.6.2.30102 or higher) for Windows
- R:BASE Turbo (Build 8.0.16.30102 or higher) for Windows

3.2 Command History

Pressing [Ctrl+H] keys at the R> Prompt brings up the list of all commands that were executed at the R> Prompt during that particular session of R:BASE 7.6 or Turbo V-8 for Windows.

Once the R> Prompt Command History list is displayed in the order of execution, traditionally, you will have to select the command from the list, click on [Select] button to paste the command at the R> Prompt and then press [Enter] key to execute that command again at the R> Prompt.

Did you know that you can click on the [Run Selected] button to execute the selected command at the R> Prompt?

You will also notice that the last executed command is listed at the top of the list.

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.4.30623 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.4.30623 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.18.30623 or higher)

3.3 Documenting and Recycling the Command History

The enhanced Command History panel is a new addition within the R> Prompt window. If it is not displayed, you can access the Command History panel, using the [Ctrl]+[H] keys, or from within the R> Prompt Settings.

To execute any command displayed within the Command History panel, you can either double click on a command, or select the command from the list, which will display the command at the R> Prompt Input console, and then press the [Enter] key.

Did you know that you can [Save] the entire command history to a file or copy to the clipboard for documenting or recycling purposes? You can also [Load] the command history from file.

Notice the following options when you right-click on "Command History" panel.

- Run Selected Command
- Clear Command History
- Close Command History Panel
- Load Command History from File...
- Save Command History to File...
- Copy Command History to Clipboard

Supported Versions:

- R:BASE eXtreme 9.0 (Build: 9.0.1.10511 or higher)

3.4 Hot Keys

Usually, when you type a command at the "Input Console" of the R> prompt and press the [Enter] key, the "Output Console" displays the output results. The typed command at the input console is then cleared.

If you wish to retype the same command again, you either have to use the [PageUp], [PageDn] or [Ctrl+H] keys to view the history of all commands typed at the R> prompt. The history is retained for the current session of R:BASE. Clicking the mouse on the Output Console and then pressing the [PageUp] key reveals the entire history of output results. Using the CLS command clears the buffer of all stored results in Output Console.

Did you know that you can type the command at the input console of the R> prompt and still retain the typed command by simply holding the [Shift] key and then pressing the [Return] Key?

Holding the [Shift] key and then pressing the [Return] key will retain the typed command in the input console of the R> prompt.

Supported Versions:

- R:BASE 7.6 (Build 7.6.2.31221 or higher) for Windows
- R:BASE (C/S:I) 7.6 (Build 7.6.2.31221 or higher) for Windows
- R:BASE Turbo (Build 7.6.2.31221 or higher) for Windows

Part



4 Database Explorer

4.1 Default File Names for Unloading Forms/Labels/Reports

Did you know that when you unload a form, label or report using the Database Explorer, the default file name includes a suffix "_Form", "_Label", or "_Report" for the form, label, or report?

Using this method, you will never have the problem of forms, labels, or reports with same names wiping out each other's LOB files.

For example:

When unloading a form named "Customers", the following two files will be created:

- Customers_Form.frm
- Customers_Form.lob

When unloading a label named "Customers", the following two files will be created:

- Customers_Label.lbl
- Customers_Label.lob

When unloading a report named "Customers", the following two files will be created:

- Customers_Report.rpt
- Customers_Report.lob

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.3.30509 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.3.30509 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.17.30509 or higher)

4.2 Exploring the Database Explorer

Here are a few tips related to the Enhanced Database Explorer:

01. Renaming List Items

- Databases
- Tables
- Views
- Stored Procedures
- Forms
- Reports
- Labels
- External Forms
- Applications
- Command Files

Highlight the item, right-click and select "Rename ...".

You may also use [F2] key to rename selected item, or use click-pause-click to rename the selected item as well.

02. Stored Procedures - Find in Stored Procedures

From the Database Explorer, select Stored Procedures from the Group Bar menu on the left.

- I. Use [Ctrl+F] to launch "Find in Stored Procedures" Window to Find Text.
- II. Double-clicking on the selected item in Search Results will launch R:BASE Editor with highlighted found text. Use [F8] key to search next match while in the same block of code.

03. Forms - Find in Custom EEPs

From the Database Explorer, select Forms from the Group Bar menu on the left.

- I. Select a single, multiple, or [Ctrl+A] for all forms.
- II. Use [Ctrl+F] to launch "Find in Custom EEPs" dialog box to enter text to find.
- III. Selecting the form in [Form List] will expand Search Results with itemized list of controls and embedded Custom EEP.
- IV. Double-clicking on the link will launch R:BASE Editor with highlighted found text. Use [F8] key to search next match while in the same block of code.

Note:

While editing the Custom EEP, notice the Editor Caption with all details related to the Form Name, Control Name, Caption, Coordinates, and option that is used for Custom EEP, such as On Click EEP, etc.

04. Reports - Find in Custom EEPs

From the Database Explorer, select Reports from the Group Bar menu on the left.

- I. Select a single, multiple, or [Ctrl+A] for all reports.
- II. Use [Ctrl+F] to launch "Find in Custom EEPs" dialog box to enter text to find.
- III. Selecting the report in [Report List] will expand Search Results with itemized list of sections/bands and embedded Custom EEP.
- IV. Double-clicking on the link will launch R:BASE Editor with highlighted found text. Use [F8] key to search next match while in the same block of code.

Note:

While editing the Custom EEP, notice the Editor Caption with all details related to Report Name, Action, Band, and option that is used for Custom EEP, such as On Before Generate EEP.

05. Labels - Find in Custom EEPs

From the Database Explorer, select Labels from the Group Bar menu on the left.

- I. Select a single, multiple, or [Ctrl+A] for all labels.
- II. Use [Ctrl+F] to launch "Find in Custom EEPs" dialog box to enter text to find.
- III. Selecting the label in [Label List] will expand Search Results with itemized list of sections/bands and embedded Custom EEP.
- IV. Double-clicking on the link will launch R:BASE Editor with highlighted found text. Use [F8] key to search next match while in the same block of code.

Note:

While editing the Custom EEP, notice the Editor Caption with all details related to Report Name, Action, Band, and option that is used for Custom EEP, such as On Before Generate EEP.

06. External Forms - Find in Custom EEPs

From the Database Explorer, select External Forms from the Group Bar menu on the left.

- I. Select a single, multiple, or [Ctrl+A] for all external forms.
- II. Use [Ctrl+F] to launch "Find in Custom EEPs" dialog box to enter text to find.
- III. Selecting the form in [Form List] will expand Search Results with itemized list of controls and embedded Custom EEP.
- IV. Double-clicking on the link will launch R:BASE Editor with highlighted found text. Use [F8] key to search next match while in the same block of code.

Note:

While editing the Custom EEP, notice the Editor Caption with all details related to Form Name, Control Name, Caption, Coordinates, and option that is used for Custom EEP, such as On Click EEP, etc.

07. Applications - Find in Custom EEPs

From the Database Explorer, select Applications from the Group Bar menu on the left.

- I. Select a single, multiple, or [Ctrl+A] for all applications.
- II. Use [Ctrl+F] to launch "Find in Custom EEPs" dialog box to enter text to find.
- III. Selecting the application in [Application List] will expand Search Results with itemized list of controls and embedded Custom EEP.
- IV. Double-clicking on the link will launch R:BASE Editor with highlighted found text. Use [F8] key to search next match while in the same block of code.

Note:

While editing the Custom EEP, notice the Editor Caption with all details related to Application Name, Control Name, Caption, Coordinates, and option that is used for Custom EEP, such as On Click EEP, etc.

08. Command Files - Find in Files

From the Database Explorer, select Command Files from the Group Bar menu on the left.

- I. Select a single, multiple, or [Ctrl+A] for all command files.
- II. Use [Ctrl+F] to launch "Find in Files" dialog box to enter text to find.
- III. You may also customize the search using Search Options and File Attributes. Click on [Start] button to search.
- IV. Highlight one, multiple, or [Ctrl+A] for all command files that match the criteria. Click on [Open File(s)] button to open all command files in R:BASE Editor.

09. Command Files - Editing Multiple Files at Once

From the Database Explorer, select Command Files from the Group Bar menu on the left.

Select a single, multiple, or [Ctrl+A] for all command files and then right-click to select Edit File(s) to edit all files at once.

Make sure to customize R:BASE Editor Settings to take advantage of new and enhanced options, such as:

General (Background, Selected Block, Text Match)

- o String
- o Display
- o Line Highlight
- o Background
- o Printer Font
- o Compare by Content
- o Structure Toolbar
- o Syntax Schema

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.3.10414 or higher)

4.3 Form Preview From the Database Explorer

Did you know that you can preview any Form from the Database Explorer?

Here's how:

A new setting has been introduced to preview your form canvas from the Database Explorer, when you are not even using the form designer.

Steps to activate this "Preview" option:

1. From the Database Explorer, select "Settings" > "Form Designer..." from the Menu Bar.

The "Default Form Settings" dialog window will appear.

2. Check the option for [] Save Form with Preview

3. Click on [OK] button to save the user settings.

Now open any form in form designer, make any changes, save the form and then close the Form Designer. From now on, creating a new form or updating an existing form will be saved with the preview capabilities.

When using the [Forms] section of the Database Explorer, select that form you have just saved and then right-click on it for all speed menu options. Notice the additional item [Form Preview]. Selecting this option will display the Form Preview.

Supported Versions:

- R:BASE 7.6 for Windows (Build 7.6.2.31026 or higher)
- R:BASE 7.6 (C/S:I) for Windows (Build 7.6.2.31026 or higher)
- R:BASE Turbo V-8 for Windows (Build 8.0.16.1026 or higher)

4.4 Launch Directory

Did you know that you could launch the current directory location in Windows Explorer with a click, directly from the R:BASE Database Explorer?

On the "Property Bar", there is a folder icon with a green arrow. If you left click, a dialog will open prompting you to change the working directory.

However, if you right click, you will launch Windows Explorer in your current directory location.

4.5 One Click UNLOAD for Data and Structure

Did you know that you can UNLOAD the STRUCTURE as well as the DATA (ALL), using the one-click option of the R:BASE Database Explorer?

Here's how:

```
CONNECT RRBYW10
```

Database Explorer | Tables

Right-click on the desired table and click on "Unload" > "Structure and Data..." option of the speed menu.

This will UNLOAD the data as well as the structure of selected table to an external file, using the default file name as tablename.all, which you can change, if you wish.

The other options for "Unload" include strictly structure output:

- Structure...
- Definition...
- Definition with Constraints, Indexes, Comments...

4.6 Open Table/View Options Using the Data Browser/Editor

Traditionally, when using the Database Explorer, double-clicking on a table/view will bring up the Data Browser in a Browse mode and then you can sort the data by clicking on a column header or using the Sort options from the main menu. You can also to press [F4] key or click on the toolbar icon to toggle Edit or Browse mode. There is no option to limit the number of rows with a WHERE clause after you have double clicked on the table/view.

Did you know that you can use the new Setting for the DB Explorer to display a "Open Table" dialog with the following options:

- WHERE Clause
- Open As: [] Browse [] Edit
- WHERE Builder
- Open As MDI Window

This setting will provide you with options to customize the data and Data Browser/Editor Window itself.

RBG9 Main Window | Main Menu | Settings | Database Explorer ...

Supported Versions:

R:BASE eXtreme 9.0 (Build: 9.0.1.11111 and higher)

4.7 Renaming Database Explorer Objects

Using the new Main Window and Database Explorer, while seeing the list of Tables, Views, Stored Procedures, Forms, Reports, Labels, External Form Files, Applications, and Command Files, now you can simply left click twice (not double-click) or use the [F2] key to rename the displayed name accordingly.

Be careful using this shortcut!

Supported Versions:

R:BASE eXtreme 9.0 (Build: 9.0.1.131028 or higher)

4.8 Searching for Text in Control Properties

Did you know that you can search for specific text that may be defined in Form, Report, Label, and External Form control properties?

The new "Find in Control Properties" feature opens a search utility to locate specific text defined within the properties

of any object for the connected database. The functionality to search for text within Control Properties allows users to

locate Component IDs, hints, text captions, columns listed in WHERE Clauses for Lookup controls, and also pop-up menus.

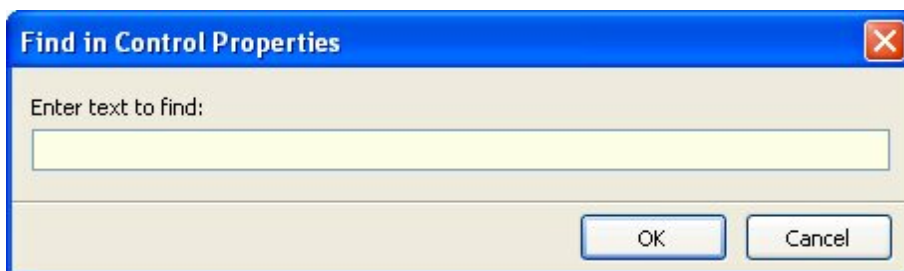
Any text defined within a form, report, or label control will be used in the search!

When searching for text within Control Properties, text strings can be located within the following modules:

- Forms
- Reports
- Labels
- External Forms

Here's how:

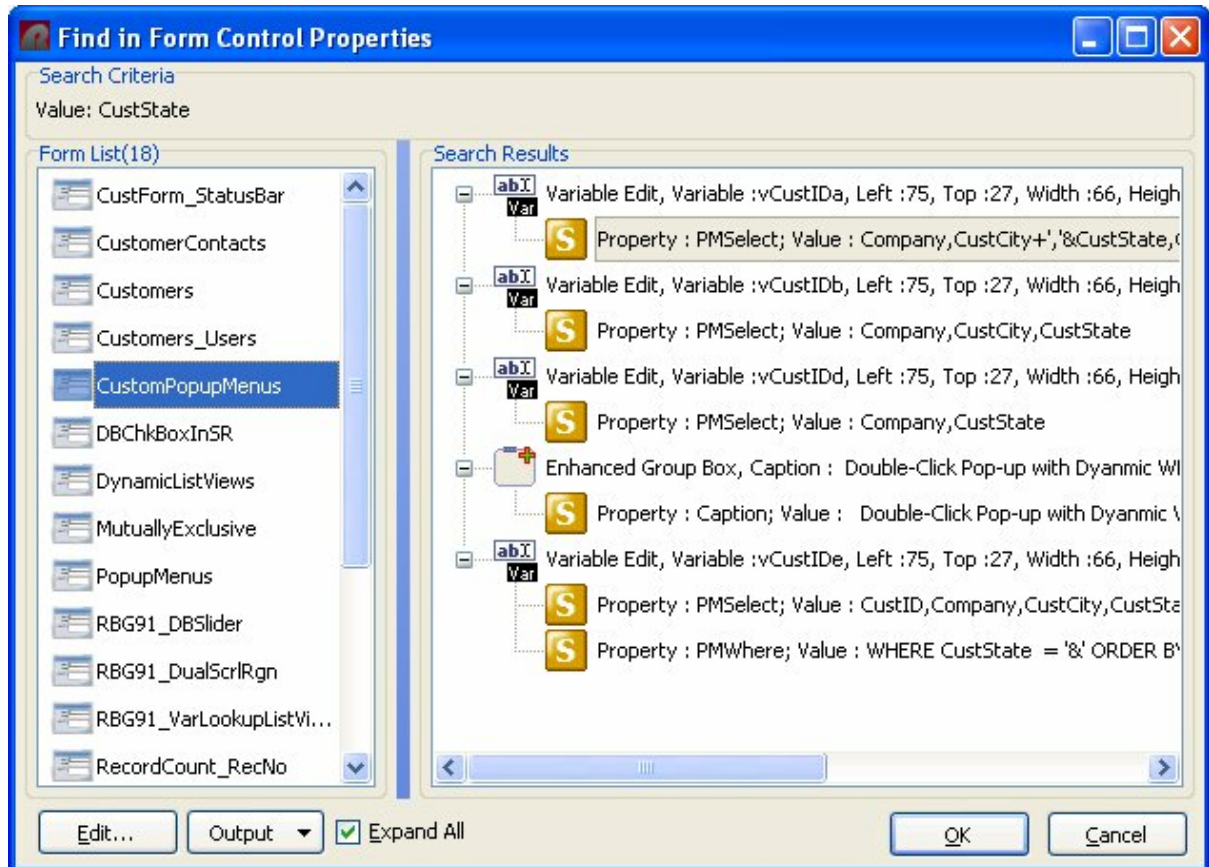
To begin searching, press the [Ctrl]+[L] key combination to display the "Find in Control Properties" dialog.



Searching for text can include all listed items displayed at the Database Explorer, or just a selected few. For example, selecting ten out of fifty forms, and then pressing [Ctrl]+[L] will search for the text for all controls within the ten selected forms.

Note: The "Find in Control Properties" dialog can only be launched from the Database Explorer.

After the search is complete, a list of forms and form objects that match the search will be displayed. The search results will contain form object(s) whose property and value match the search criteria.



The property value can be launched within a dialog window for editing by double clicking on it, or by selecting the "Edit..." button. The search results can be saved to several output formats.

The "Expand All" check box allows the list of EEPs in the search results to expand for full viewing.

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.5.11111 or higher)

4.9 Searching for Text in Expressions

Did you know that you can search for specific text that may be defined in Form, Report, and Label expressions?

The "Find in Expressions" feature opens a search utility to locate specific text defined within the form, report, and label expressions for the connected database. The functionality to search for text within expressions allows users to locate specific columns, tables, functions, variables, and any part of a WHERE Clause.

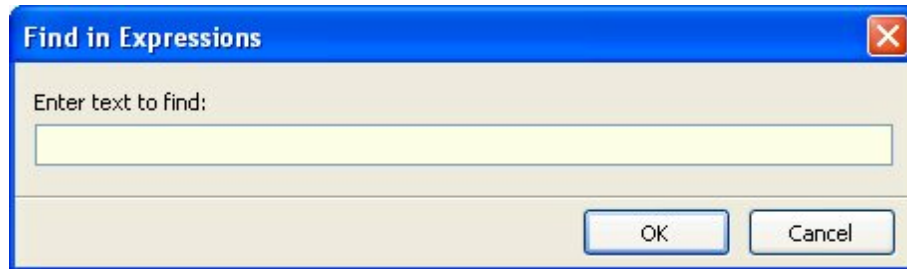
Any text defined within an expression will be used in the search!

Here's how:

When searching for text within expressions, text strings can be located within the following modules:

- Forms
- Reports
- Labels

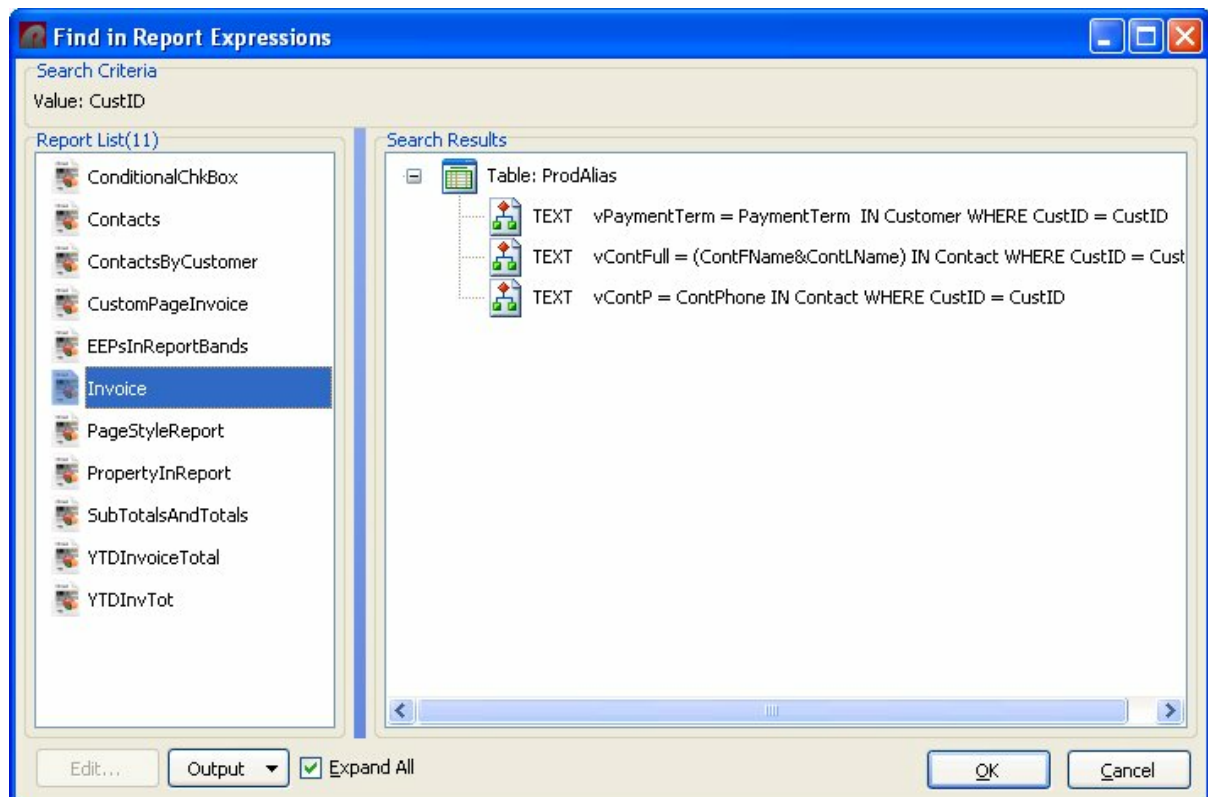
To begin searching, press the [Ctrl]+[Shift]+[F] key combination to display the "Find in Expressions" dialog.



Searching for text can include all listed items displayed at the Database Explorer, or just a selected few. For example, selecting fifteen out of fifty reports, and then pressing [Ctrl]+[Shift]+[F] will search for the text for all expressions within the fifteen selected reports.

Note: The "Find in Expressions" dialog can only be launched from the Database Explorer.

After the search is complete, a list of reports and defined variable expressions that match the search will be displayed.



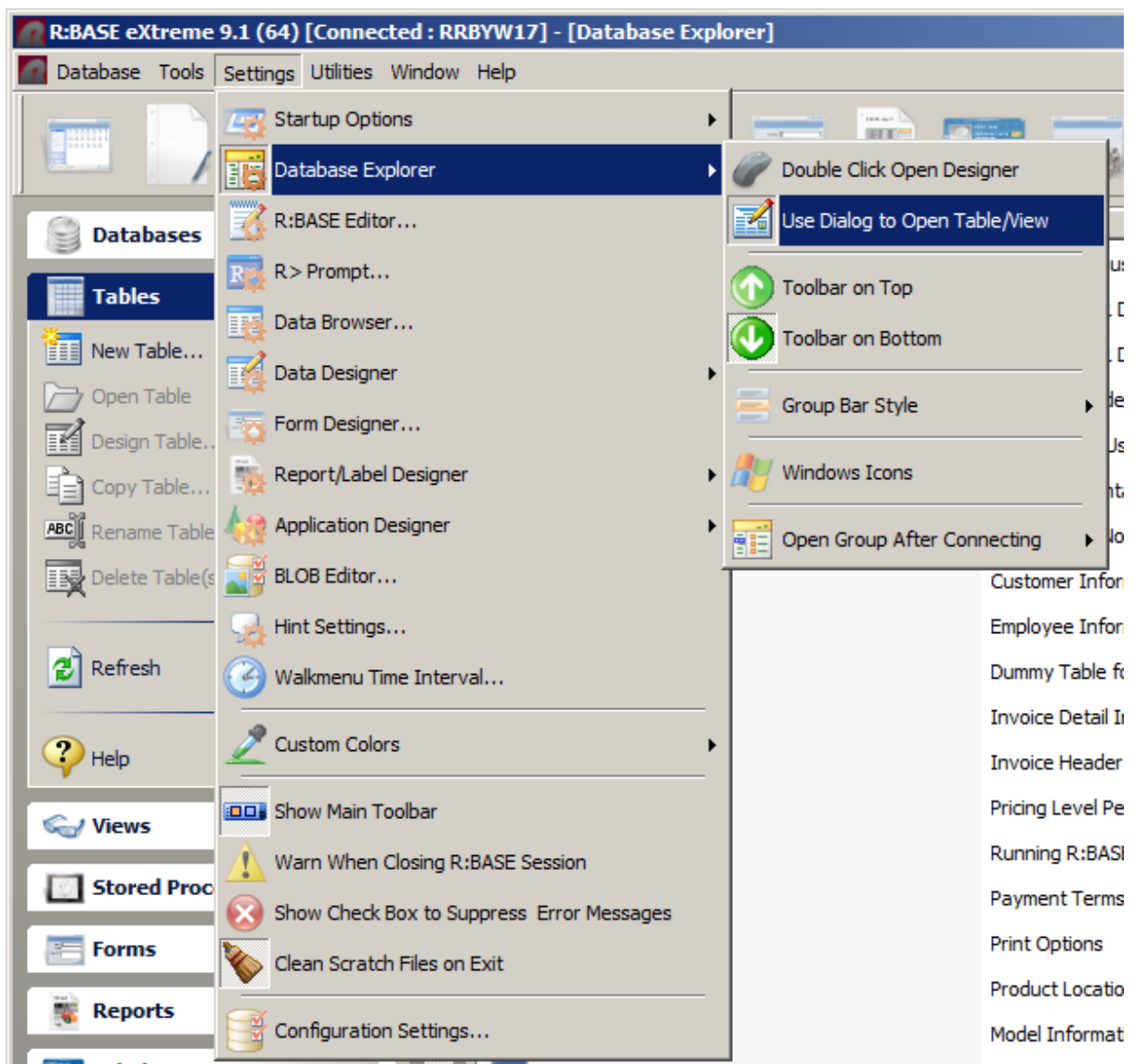
The search results will contain the tables(s) and expressions that match the search criteria. The variable expression can be launched within a dialog window for editing by double clicking on it, or by selecting the "Edit..." button. The search results can be saved to several output formats. The "Expand All" check box allows the list of expressions in the search results to expand for full viewing.

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.5.11111 or higher)

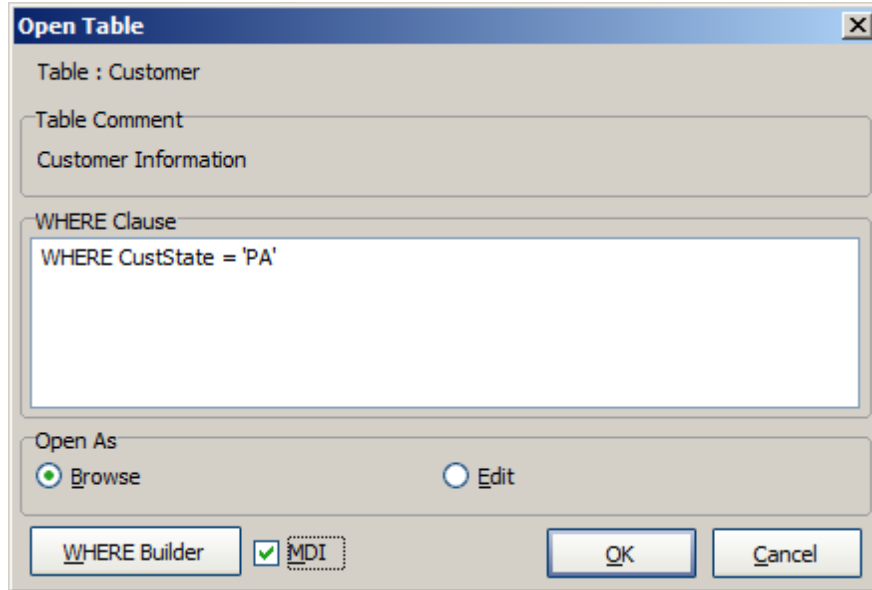
4.10 Using MDI Option for Database Explorer Modules

When customizing the settings for Database Explorer, in addition to change the appearance of the Database Explorer window, you may also select the option to "Use Dialog to Open Table/View".

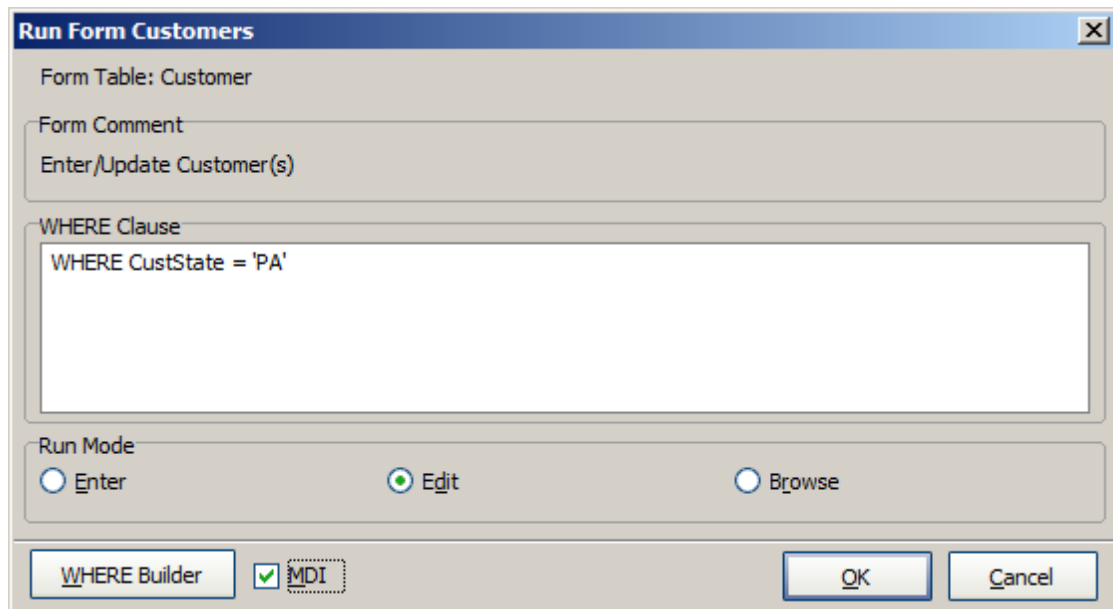


Selecting this option toggles the ability to launch a dialog to add a WHERE Clause, change the browse mode, and use an MDI window when opening a table or view.

When you double click on a table or view, "Open Table" or "Open View" dialog box is launched and next to the WHERE Builder button an "MDI" check box is available. When MDI option is checked, the Data Browser will be displayed as an MDI windows. You may open as many tables or views at the same time using the MDI option.

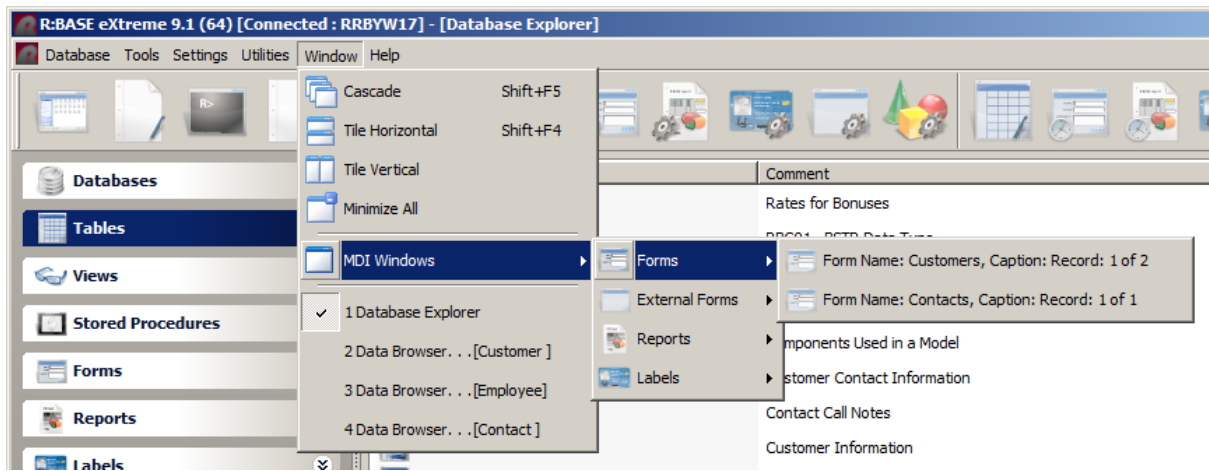


Did you know that you can use the MDI option when double-clicking on Forms, Reports, Labels, or External Forms to run? Notice the [] MDI option next to the [WHERE Builder] button.



You may also use the same option for Reports, Labels, and External Forms. There is no limit.

If you wish to retrieve, switch back to previously opened MDI Browser, Form, Report, Label, External Form, or would like to see a list of all opened MDI windows, you may use the Window option of the Database Explorer by selecting Window > MDI Windows.



Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.3.10414 or higher)

Part



5 Data Designer (RBDDefine)

5.1 Reorganizing Columns in Data Designer

Did you know that you can reorganize/re-sequence table columns in the Data Designer using the Change Order [Move Up] and [Move Down] speed buttons?

Here's how:

1. Start R:BASE.
2. Connect to a database.
3. From the Database Explorer, select the "Tables" option.
4. Select the appropriate table and choose the "Design Table" option.
5. Within the "Data Designer", select the "Columns" tab.

Notice the green arrow [Move Up] and [Move Down] speed buttons!

6. Highlight the exact column that you wish to move up/down.
7. Click on the [Move Up] or [Move Down] button accordingly.

Notice the new position of selected column

8. Click on the "Save" button to save the current structure or "Save and Close" to save the current structure and close the data designer.

Supported Versions

- R:BASE 7.6 (Build 7.6.3.30502) for Windows
- R:BASE C/S:I 7.6 (Build 7.6.3.30502) for Windows
- R:BASE Turbo (Build 8.0.17.30502 for Windows)

5.2 Validate the syntax for an email address

Here is a tip from the Father of R:BASE, Wayne Erickson (Head of the R:BASE Development Team), that validates the syntax for an email address in R:BASE.

Wayne's Corner: Validating syntax for an email address in R:BASE ...

For an example, assume you have a table called "person" and it has a column called "email" for storing email addresses. You want to check some things to make sure the values in this column meets some basic things an email address should have. Here is the rule definition code:

```
RULES 'Improper Email Address' FOR Person SUCCEED +
WHERE +
(SLOC(SMOVE(`Email`,(SLOC(`Email`,`@`)+1),SLEN(`Email`)-(SLOC
(`Email`,`@`)),` `,1),`.`)) > 1 +
AND +
((SLEN(SMOVE(`Email`,(SLOC(`Email`,`@`)+1),(SLEN(`Email`)-SLOC
(`Email`,`@`)),` `,1))) - +
(SLOC(SMOVE(`Email`,(SLOC(`Email`,`@`)+1),(SLEN(`Email`)-SLOC
(`Email`,`@`)),` `,1),`.`))) >= 2 +
AND +
(SLOC(STRIM(LJS(`Email`,40)),`@`)) > 2
```

This particular rule checks three things:

1. Are there at least 2 characters before an "@" character? This is done with the

```
(SLOC(STRIM(LJS(`Email`,40)),`@`)) > 2
```

part of the rule.

2. Is there a "." after the "@", and is there at least one character between the "@" and the "."? This is done with the

```
(SLOC(SMOVE(`Email`,(SLOC(`Email`,`@`)+1),SLEN(`Email`)-(SLOC(`Email`,`@`)),', ',1),'.')) > 1
```

part of the rule.

3. Are there at least 2 characters after the "." which follows the "@" character? This would allow something like x@x.ca but not x@x.c. This is done with the

```
((SLEN(SMOVE(`Email`,(SLOC(`Email`,`@`)+1),SLEN(`Email`)-SLOC(`Email`,`@`)),', ',1))- +
(SLOC(SMOVE(`Email`,(SLOC(`Email`,`@`)+1),SLEN(`Email`)-SLOC(`Email`,`@`)),', ',1),'.')) >= 2
```

part of the rule.

Have fun implementing this cool code in your R:BASE applications!

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.4.30623 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.18.30623 or higher)
- R:BASE eXtreme 9.0 (Build: 9.0.1.10701 and higher)

Part



6 Data Browser

6.1 Accessing Note/BLOB Field Viewer/Editor Using Right-Click

Did you know that while BROWSing or EDITing a table with NOTE, VARCHAR or VARBIT columns, you can access the Note/BLOB Field Viewer/Editor, using the right-click?

Here's how:

```
CONNECT RRBYW14
BROWSE * FROM Contact
```

Tab over to the ContInfo (NOTE), or ContPhoto (VARBIT) column. Right-Click on the cell and notice the new "Open" option on the speed menu. Selecting the "Open" option will open the NOTE, VARCHAR or VARBIT column in appropriate sections of the Note/BLOB Field Viewer/Editor.

Supported Versions:

- R:BASE 7.6 (Build 7.6.3.30314 or higher) for Windows
- R:BASE C/S:I 7.6 (Build 7.6.3.30314 or higher) for Windows
- R:BASE Turbo (Build 8.0.16.30314 or higher) for Windows

6.2 Adding Zebra Stripes to the Data Browser

Did you know that you can add zebra stripes to your Data Browser allowing you to read and understand your table records easily?

Here's how:

1. Launch R:BASE
2. Connect to a database
3. Open any table to view the records
4. From the Main Menu Bar, select "Layout" > "Draw Zebra Stripe"

You will immediately see the striped color for odd and even records.

Don't like the colors? If you would like to customize the zebra stripe colors, you can.

To alter the "odd" record color:

From the Main Menu Bar, select "Settings" > "Data Browser" "Set Odd Color"

To alter the "even" record color:

From the Main Menu Bar, select "Settings" > "Data Browser" "Set Even Color"

6.3 Conditionally Managing Data Browser/Editor Options

Traditionally, among many options, the Data Browser/Editor "Edit" list includes:

- Edit Mode [F4] (Switch Between Browse/Edit Mode)
- Print Data
- Export Results to
- Save Result As (Table, Temporary Table, View, Temporary View)

However, there may be circumstances when you may not want to provide these options to any or all users.

Did you know that you can conditionally manage these options which may include enabling/disabling

these choices based upon the logged in user?

Here's how:

```
IF (CVAL('DATABASE')) <> 'RRBYW17' OR (CVAL('DATABASE')) IS NULL THEN
  CONNECT RRBYW17 IDENTIFIED BY NONE
ENDIF
```

```
-- Example 01 (Typical Options)
```

```
CLS
  BROWSE Company,CustAddress,CustCity,CustState,CustZip,CustPhone +
  FROM Customer ORDER BY Company +
  OPTION CAPTION Customer Data|WINDOW_STATE NORMAL
RETURN
```

```
-- Example 02 (NOCHG)
```

```
-- Disable [F4] key to switch between Browse/Edit Mode
```

```
CLS
  BROWSE Company,CustAddress,CustCity,CustState,CustZip,CustPhone +
  FROM Customer ORDER BY Company NOCHG +
  OPTION CAPTION Customer Data|WINDOW_STATE NORMAL
RETURN
```

CustAddress	CustCity	CustState	CustZip	CustPhone	
1403 Queen Anne Ave N	Stony Brook	NY	11794	516-563-4438	
123 Main Street	Asheville	NC	28801	828-987-6543	
205 Whitman N	Ogden	UT	84403	801-248-4798	
1208 Occidental Rd	Miami	FL	33128	305-767-4309	
11033 Webster Blvd	Concord	CA	94521	613-226-7171	
4311 Beach Dr	Ft Lauderdale	FL	33309	305-365-7803	
14792 15th Ave. E.	Denver	CO	80214	303-271-1500	
14600 Eastgate Way	Bloomington	IN	47401	812-701-1002	
123 My Way, Suite 100	Boston	CA	02178	617-341-2181	
3923 Pleasant Hill Dr	Olympia	WA	98504	206-321-5606	
62 Main St	Lynnwood	WA	98037	206-323-4365	
5200 Empire Way	Denver	CO	80214	303-239-7823	
5602 Silverdale Way	Livermore	CA	94550	415-878-5600	
30021 Grant Blvd	Sunnyvale	CA	94089	408-234-8654	
2341 Meridian NW	Englewood	CO	80112	303-426-8442	
12287 112th S	Plantation	FL	33317	305-746-2302	
24700 Industrial Parkway	Boston	MA	02162	617-423-8921	
5672 SW Graham	Appleton	WI	54911	414-245-9867	
2800 N.E. 47th	Chicago	IL	60637	312-277-5000	
2315 Woodlawn	Snoqualmie	WA	99026	509-382-8706	
3682 11th Ave S	Las Vegas	NV	89104	702-649-9551	
Murrysville Technology Center	3930 Old William Penn Highway	Murrysville	PA	15668-1854	724-733-1234
Blue Ridge Technologies, Inc.	123 Main Street	Asheville	NC	28801	828-987-6543

```
-- Example 03 (READONLY ON)
```

```
-- Makes the entire data set READONLY.
CLS
  BROWSE Company,CustAddress,CustCity,CustState,CustZip,CustPhone +
FROM Customer ORDER BY Company +
OPTION CAPTION Customer Data|WINDOW_STATE NORMAL|READONLY ON
RETURN
```

Company	CustAddress	CustCity	CustState	CustZip	CustPhone
Barton and Associates	1403 Queen Anne Ave N	Stony Brook	NY	11794	516-563-4438
Blue Ridge Technologies, Inc.	123 Main Street	Asheville	NC	28801	828-987-6543
Bytes & Words	205 Whitman N	Ogden	UT	84403	801-248-4798
Compdat Computer Consulting	1208 Occidental Rd	Miami	FL	33128	305-767-4309
Compumasters Computer Supply	11033 Webster Blvd	Concord	CA	94521	613-226-7171
Computer Medical Ctr.	4311 Beach Dr	Ft Lauderdale	FL	33309	305-365-7803
Computer Mountain Inc.,	14792 15th Ave. E.	Denver	CO	80214	303-271-1500
Computer Warehouse - I	14600 Eastgate Way	Bloomington	IN	47401	812-701-1002
Computer Warehouse - II	123 My Way, Suite 100	Boston	CA	02178	617-341-2181
Data Solutions	3923 Pleasant Hill Dr	Olympia	WA	98504	206-321-5606
Datacrafters Infosystems	62 Main St	Lynnwood	WA	98037	206-323-4365
Industrial Computers Inc.	5200 Empire Way	Denver	CO	80214	303-239-7823
Industrial Concepts Inc.	5602 Silverdale Way	Livermore	CA	94550	415-878-5600
Johnson Technologies	30021 Grant Blvd	Sunnyvale	CA	94089	408-234-8654
Lanufacturers Discount Computers	2341 Meridian NW	Englewood	CO	80112	303-426-8442
Microcomputer Distribution	12287 112th S	Plantation	FL	33317	305-746-2302
Microtech University - I	24700 Industrial Parkway	Boston	MA	02162	617-423-8921
Microtech University - II	5672 SW Graham	Appleton	WI	54911	414-245-9867
Midtown Computer Co.	2800 N.E. 47th	Chicago	IL	60637	312-277-5000
MIS by Design	2315 Woodlawn	Snoqualmie	WA	99026	509-382-8706
Modular Software, Inc.	3682 11th Ave S	Las Vegas	NV	89104	702-649-9551
Murrysville Technology Center	3930 Old William Penn Highway	Murrysville	PA	15668-1854	724-733-1234
Nordan Distributors, Inc.	1623 North Avenue	Two Dot	IL	47401	312-555-1212

```
-- Example 04 (PRINTDATA OFF)
-- Disable Print Data Option
CLS
  BROWSE Company,CustAddress,CustCity,CustState,CustZip,CustPhone +
FROM Customer ORDER BY Company +
OPTION CAPTION Customer Data|WINDOW_STATE NORMAL|PRINTDATA OFF
RETURN
```

CustAddress	CustCity	CustState	CustZip	CustPhone	
1403 Queen Anne Ave N	Stony Brook	NY	11794	516-563-4438	
123 Main Street	Asheville	NC	28801	828-987-6543	
205 Whitman N	Ogden	UT	84403	801-248-4798	
1208 Occidental Rd	Miami	FL	33128	305-767-4309	
11033 Webster Blvd	Concord	CA	94521	613-226-7171	
4311 Beach Dr	Ft Lauderdale	FL	33309	305-365-7803	
14792 15th Ave. E.	Denver	CO	80214	303-271-1500	
14600 Eastgate Way	Bloomington	IN	47401	812-701-1002	
123 My Way, Suite 100	Boston	CA	02178	617-341-2181	
3923 Pleasant Hill Dr	Olympia	WA	98504	206-321-5606	
62 Main St	Lynnwood	WA	98037	206-323-4365	
5200 Empire Way	Denver	CO	80214	303-239-7823	
5602 Silverdale Way	Livermore	CA	94550	415-878-5600	
30021 Grant Blvd	Sunnyvale	CA	94089	408-234-8654	
2341 Meridian NW	Englewood	CO	80112	303-426-8442	
12287 112th S	Plantation	FL	33317	305-746-2302	
24700 Industrial Parkway	Boston	MA	02162	617-423-8921	
5672 SW Graham	Appleton	WI	54911	414-245-9867	
2800 N.E. 47th	Chicago	IL	60637	312-277-5000	
2315 Woodlawn	Snoqualmie	WA	99026	509-382-8706	
3682 11th Ave S	Las Vegas	NV	89104	702-649-9551	
Murrysville Technology Center	3930 Old William Penn Highway	Murrysville	PA	15668-1854	724-733-1234
Blue Ridge Technologies, Inc.	123 Main Street	Asheville	NC	28801	828-987-6543

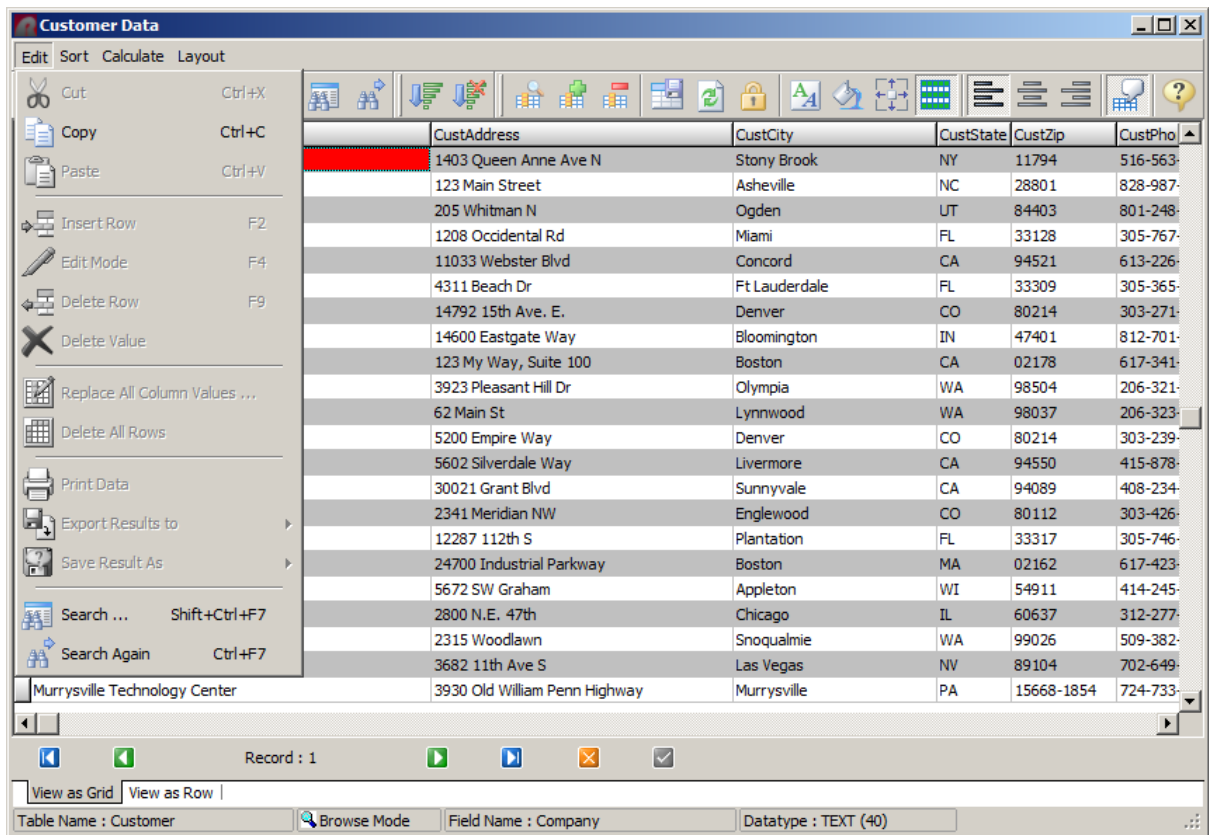
```
-- Example 05 (EXPORTRESULT OFF)
-- Disable Export Result To Option
CLS
  BROWSE Company,CustAddress,CustCity,CustState,CustZip,CustPhone +
  FROM Customer ORDER BY Company +
  OPTION CAPTION Customer Data|WINDOW_STATE NORMAL|EXPORTRESULT OFF
RETURN
```

CustAddress	CustCity	CustState	CustZip	CustPhone	
1403 Queen Anne Ave N	Stony Brook	NY	11794	516-563-4438	
123 Main Street	Asheville	NC	28801	828-987-6543	
205 Whitman N	Ogden	UT	84403	801-248-4798	
1208 Occidental Rd	Miami	FL	33128	305-767-4309	
11033 Webster Blvd	Concord	CA	94521	613-226-7171	
4311 Beach Dr	Ft Lauderdale	FL	33309	305-365-7803	
14792 15th Ave. E.	Denver	CO	80214	303-271-1500	
14600 Eastgate Way	Bloomington	IN	47401	812-701-1002	
123 My Way, Suite 100	Boston	CA	02178	617-341-2181	
3923 Pleasant Hill Dr	Olympia	WA	98504	206-321-5606	
62 Main St	Lynnwood	WA	98037	206-323-4365	
5200 Empire Way	Denver	CO	80214	303-239-7823	
5602 Silverdale Way	Livermore	CA	94550	415-878-5600	
30021 Grant Blvd	Sunnyvale	CA	94089	408-234-8654	
2341 Meridian NW	Englewood	CO	80112	303-426-8442	
12287 112th S	Plantation	FL	33317	305-746-2302	
24700 Industrial Parkway	Boston	MA	02162	617-423-8921	
5672 SW Graham	Appleton	WI	54911	414-245-9867	
2800 N.E. 47th	Chicago	IL	60637	312-277-5000	
2315 Woodlawn	Snoqualmie	WA	99026	509-382-8706	
3682 11th Ave S	Las Vegas	NV	89104	702-649-9551	
Murrysville Technology Center	3930 Old William Penn Highway	Murrysville	PA	15668-1854	724-733-1234
Blue Ridge Technologies, Inc.	123 Main Street	Asheville	NC	28801	828-987-6543

```
-- Example 06 (SAVERESULT OFF)
-- Disable Save Result As Option
CLS
  BROWSE Company,CustAddress,CustCity,CustState,CustZip,CustPhone +
  FROM Customer ORDER BY Company +
  OPTION CAPTION Customer Data|WINDOW_STATE NORMAL|SAVERESULT OFF
RETURN
```

CustAddress	CustCity	CustState	CustZip	CustPhone	
1403 Queen Anne Ave N	Stony Brook	NY	11794	516-563-4438	
123 Main Street	Asheville	NC	28801	828-987-6543	
205 Whitman N	Ogden	UT	84403	801-248-4798	
1208 Occidental Rd	Miami	FL	33128	305-767-4309	
11033 Webster Blvd	Concord	CA	94521	613-226-7171	
4311 Beach Dr	Ft Lauderdale	FL	33309	305-365-7803	
14792 15th Ave. E.	Denver	CO	80214	303-271-1500	
14600 Eastgate Way	Bloomington	IN	47401	812-701-1002	
123 My Way, Suite 100	Boston	CA	02178	617-341-2181	
3923 Pleasant Hill Dr	Olympia	WA	98504	206-321-5606	
62 Main St	Lynnwood	WA	98037	206-323-4365	
5200 Empire Way	Denver	CO	80214	303-239-7823	
5602 Silverdale Way	Livermore	CA	94550	415-878-5600	
30021 Grant Blvd	Sunnyvale	CA	94089	408-234-8654	
2341 Meridian NW	Englewood	CO	80112	303-426-8442	
12287 112th S	Plantation	FL	33317	305-746-2302	
24700 Industrial Parkway	Boston	MA	02162	617-423-8921	
5672 SW Graham	Appleton	WI	54911	414-245-9867	
2800 N.E. 47th	Chicago	IL	60637	312-277-5000	
2315 Woodlawn	Snoqualmie	WA	99026	509-382-8706	
3682 11th Ave S	Las Vegas	NV	89104	702-649-9551	
Murrysville Technology Center	3930 Old William Penn Highway	Murrysville	PA	15668-1854	724-733-1234
Blue Ridge Technologies, Inc.	123 Main Street	Asheville	NC	28801	828-987-6543

```
-- Example 07 (Conditionally Disable Options)
-- (NOCHG,READONLY ON,PRINTDATA OFF,EXPORTRESULT OFF,SAVERESULT OFF)
CLS
SET VAR vOptions TEXT = NULL
IF (CVAL('NetUser')) IN (JohnDoe,JaneDoe,MikeSmith,LLooser) THEN
SET VAR vOptions = +
('CAPTION Customer Data|WINDOW_STATE NORMAL|READONLY ON' + +
'|PRINTDATA OFF|EXPORTRESULT OFF|SAVERESULT OFF')
ELSE
SET VAR vOptions = ('CAPTION Customer Data|WINDOW_STATE NORMAL')
ENDIF
BROWSE Company,CustAddress,CustCity,CustState,CustZip,CustPhone +
FROM Customer ORDER BY Company NOCHG +
OPTION &vOptions
CLEAR VARIABLES vOptions
RETURN
```



Have fun implementing these options in your R:BASE applications!

Supported Versions:

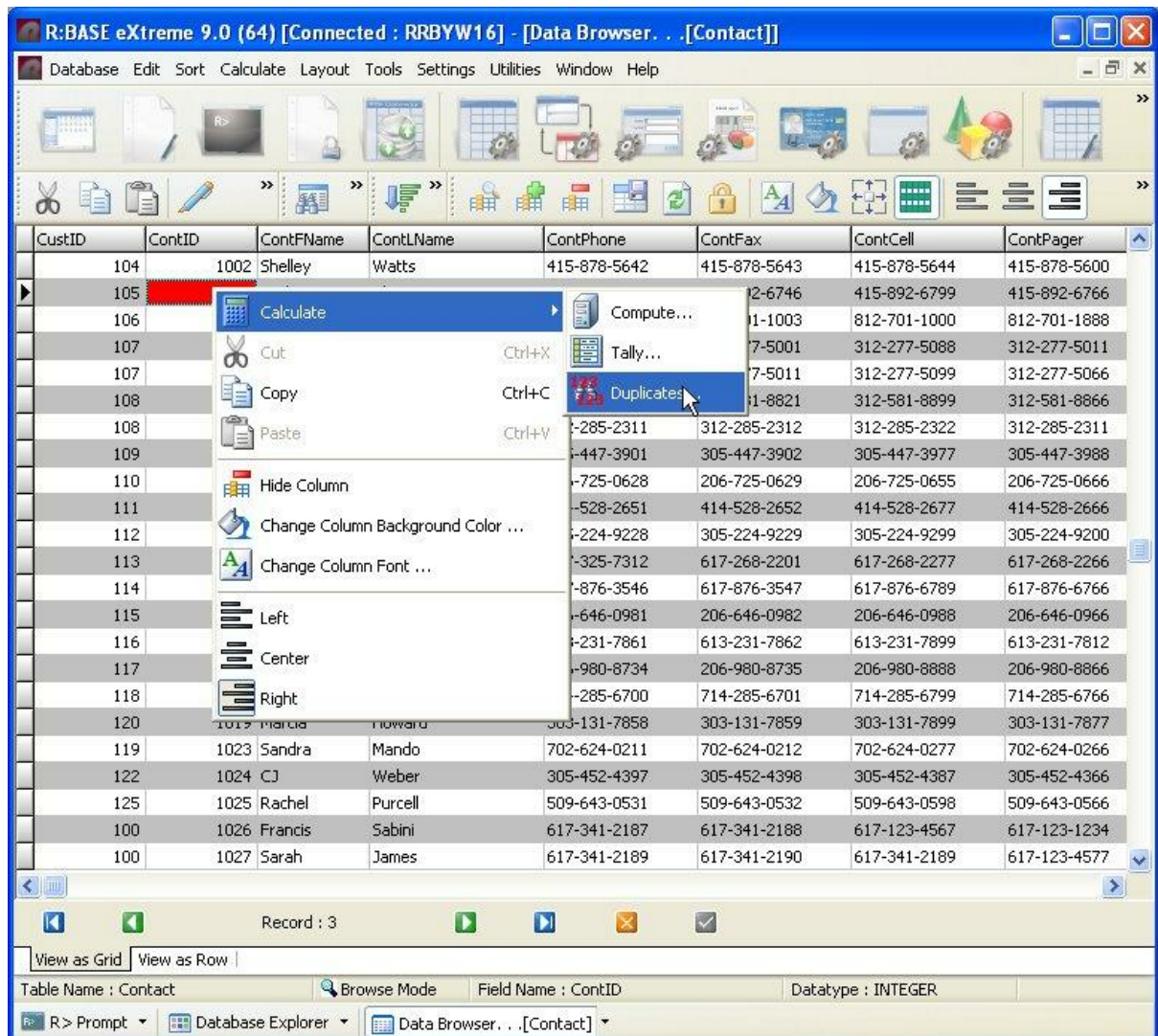
- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.3.10414 or higher)

6.4 Right-Click Calculate (Compute, Tally, Duplicates)

Did you know that while in the Data Browser/Editor, using the right-click on selected column will bring up a new speed menu option to calculate the following three options?

```
Calculate >
. Compute...
. Tally...
. Duplicates..
```

Using the right-click on selected column, and selecting the Calculate option, now you can instantly Compute (Count, Rows, Minimum, Maximum, Sum, Average, Standard Deviation, Variance), Tally, and most importantly can find the Duplicates without knowing the correct syntax.



Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.7.30420 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.21.30420 or higher)
- R:BASE eXtreme 9.0 for Windows (Build: 9.0.1.10420 or higher)

6.5 Turning the Data Browser into a Quick Form

Did you know that you can turn the data browser into a quick form?

You can achieve that by using the "ROWVIEW" option of the BROWSE command.

Here's how:

1. Start R:BASE
2. CONNECT ConComp
3. Create a command file with the following syntax:

```
-- DataBrowserAsForm.RMD
CLS
BROWSE * FROM Customer +
ORDER BY Company +
```

```

NOCHG +
OPTION WINDOW_STATE MAXIMIZED +
|CAPTION ConComp Customers +
|ROWVIEW ON
RETURN

```

4. RUN DataBrowserAsForm.RMD

For enhanced database security from users with the same command, you can use disable any output options.

3. Create a command file with the following syntax:

```

-- DataBrowsSecure.RMD
CLS
BROWSE * FROM Customer +
ORDER BY Company +
NOCHG +
OPTION WINDOW_STATE MAXIMIZED +
|CAPTION ConComp Customers +
|ROWVIEW ON +
|EXPORTRESULT OFF +
|SAVERESULT OFF +
|PRINTDATA OFF
RETURN

```

4. RUN DataBrowsSecure.RMD

6.6 Using Additional Data Browser/Editor Options

When using the BROWSE/EDIT commands, the following OPTION parameters provide the ability to customize the Data Browser/Editor Window:

- WINDOW_STATE value (MAXIMIZED, NORMAL, MINIMIZED)
- CAPTION value
- LOCK nnn
- ROWVIEW
- READONLY value (ON, OFF)
- MODAL value (ON, OFF)
- EXPORTRESULT value (ON, OFF)
- SAVERESULT value (ON, OFF)
- PRINTDATA value (ON, OFF)

When "BROWSE/EDIT columnlist FROM tableviewname" command includes BLOB (VARCHAR, BITNOTE, VARBIT) data, typically you will notice a white square box (indication of NOT NULL field) or white square box with red "X" (indication of NULL or empty field). With the full development version of R:BASE eXtreme 9.1 installed, you may change the "Layout" settings for Data Browser/Editor to "Show NOTE Hints" and "Show Image Hints" when mousing over the column cells with BLOB data.

What if you are using a compiled/runtime version of your R:BASE eXtreme 9.1 (32/64) application and would like to provide these additional options?

Did you know that you can dynamically enable or disable these additional options using the following parameters in your R:BASE eXtreme 9.1 (32/64) applications?

- ZEBRA_STRIPE value (ON, OFF) - specifies if zebra stripes are displayed

- CELL_HINTS value (ON, OFF) - specifies if NOTE column cell hints are displayed
- IMAGE_HINT value (ON, OFF) - specifies if image hints are displayed

-- Example 01 (Display Zebra Stripes)

```
CONNECT RRBYW17
```

```
BROWSE * FROM Contact OPTION ZEBRA_STRIPE ON
```

-- Example 02 (Display Cell Hints)

```
CONNECT RRBYW17
```

```
BROWSE * FROM Contact OPTION CELL_HINTS ON
```

-- Example 03 (Display Image Hints)

```
CONNECT RRBYW17
```

```
BROWSE * FROM Contact OPTION IMAGE_HINT ON
```

-- Example 04 (Display Zebra Stripes, Cell Hints, Image Hints)

```
CONNECT RRBYW17
```

```
BROWSE * FROM Contact +
```

```
OPTION ZEBRA_STRIPE ON|CELL_HINTS ON|IMAGE_HINT ON
```

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.3.10428 or higher)

Part



7 Stored Procedures

7.1 Controlling the Maximum Length of the RETURN Variable

The returned value is stored in the STP_RETURN system variable. The RETURN *varname* option is used ONLY within a Stored Procedure to return a value. This option will return an -ERROR- when used outside a Stored Procedure. The default is TEXT 8 characters, but if you want more, you can set it to a larger value.

You can control the maximum length at procedure definition time, or by editing the SYS_PROC_LEN column in SYS_PROC_COLS system table.

Example 01:

```
PUT MyTest.PRC AS MyTest P1 INTEGER RETURN TEXT (30)
```

This will set the limit for the RETURN value at 30 characters.

7.2 Order of Processing for Stored Procedures and Triggers

A trigger automatically runs a stored procedure when an UPDATE, DELETE, or INSERT command is run with a table.

The following describes the sequence in which data integrity is maintained when using Stored Procedures and Triggers:

DELETE

- Rules
- Cascades
- Triggers
- Keys
- Row itself

UPDATE

- Rules
- Cascades
- Triggers
- Keys
- Row itself

INSERT

- Rules
- Triggers
- Keys
- Row itself

Triggers automatically run a stored procedure when an UPDATE, DELETE, or INSERT command is run with a table. The trigger is run before the row that triggered it is updated, inserted, or deleted.

Since the trigger runs first, it gives you a chance to abort the procedure.

When indexes are updated it is the last step before completing the update.

The row has valid values, the rules are met, and the triggers did not abort.

The only error out at this point is if the key update fails, such as a PKFK violation. When the key processing code is done it is a real attempt to update the key, not just a "will it be ok" process. If you do not want your triggers to run you could modify the trigger to check for PK-FK violations before doing the rest of the trigger.

Part

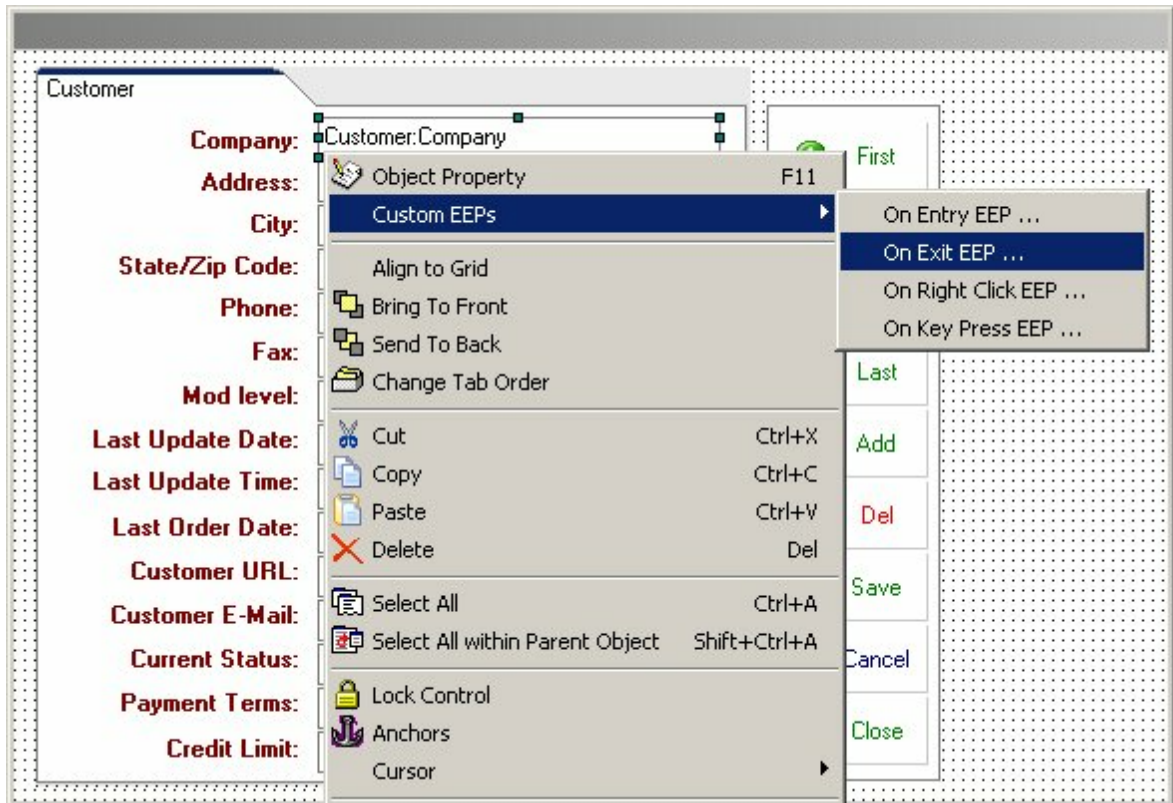


8 Forms

8.1 Accessing/Updating Custom EEPs using Right-Click

Did you know that you can use right-click on a form to directly access the Form Custom EEPs or right-click on any object/control to access object specific Custom EEPs?

While in Form Designer, you can right-click on a blank form area to access form Custom EEPs. While in Form Designer, you can right-click on any control/object to access control/object specific Custom EEPs.



Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.3.30509 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.3.30509 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.17.30509 or higher)

8.2 Action Sequence (Form EEP Execution)

Action Sequence (the order in which the form EEPs are executed)

A typical control's property options within the "EEPs" tab include the following options:

- Predefined Actions
 - Add Row
 - Add Row and Exit
 - Delete Row
 - Discard Row
 - Discard Row and Exit
 - Duplicate Row

- Exit
- Next Row
- Next Table
- Previous Row
- Previous Table
- Save Row
- Last Row
- First Row
- Save Row and Exit
- Refresh Current Table
- Stored Procedure
- Custom Form Action
- Custom

This is the actual order in which the form EEPs are executed:

1. Custom Embedded EEP (if defined)
2. Custom EEP (External File)
3. Stored Procedure
4. Custom Form Action
5. Predefined Actions

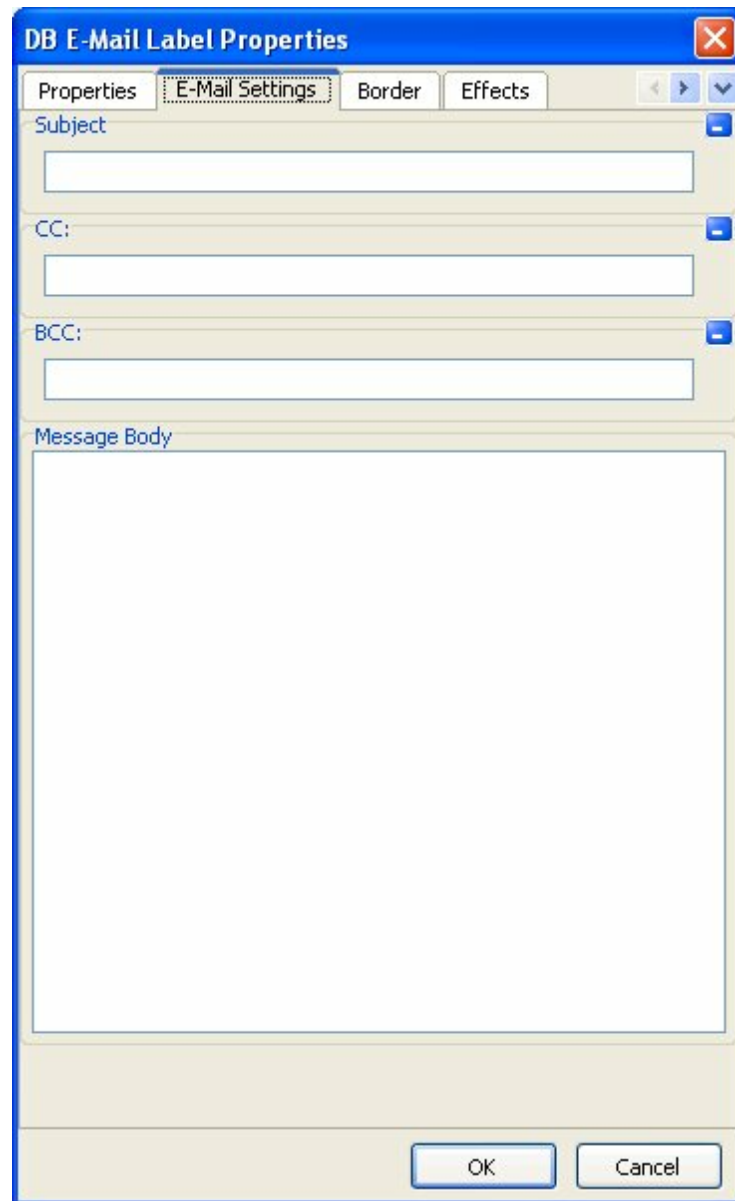
8.3 Additional Fields for DB/Variable Email Label Controls

Did you know that you can now use additional fields to specify the CC, BCC, and Message Body fields for the DB Email Label and Variable Email Label controls?

The Email Label Controls send a message to the user's MAPI mail client. The CC, BCC, and Message Body fields can be specified within the control properties, or altered on the fly using the PROPERTY command.

Example:

```
PROPERTY Comp_ID_CC CC 'joe@newco.com'  
PROPERTY Comp_ID_BCC BCC 'wade@newco.com'  
PROPERTY Comp_ID_MsgBody BODYTEXT 'Thank you for your order!'
```



The CC, BCC, and Message Body fields for the DB and Variable Email Label controls can now be specified using the PROPERTY command, and within the control properties!

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.5.11212 or higher)

8.4 Capturing the Value of Form Component IDs

Did you know that you can capture the value of any DB or Variable Edit Control's Component ID, if defined, while using the form in Enter, Edit or Browse mode?

In addition to all Form System Variables, a new RBTI_FORM_COMPID variable has been added to capture the value of DB or Variable Edit Component ID, if defined.

Here's a comprehensive list of System Variables used in Forms:

- RBTI_DBGRID_COLUMN

- RBTI_DIRTY_FLAG
- RBTI_FORM_ALIAS
- RBTI_FORM_COLNAME
- RBTI_FORM_COLVALUE
- RBTI_FORM_COMPID
- RBTI_FORM_DATATYPE
- RBTI_FORM_DIRTYVAR
- RBTI_FORM_FORMNAME
- RBTI_FORM_MODE
- RBTI_FORM_TBLNAME
- RBTI_FORM_VARNAME
- RBTI_FORM_VARVALUE

RBTI_DBGRID_COLUMN

This variable holds the name of focused Column on DB Grid.

RBTI_DIRTY_FLAG

Returns 1 if any DB Control value(s) in form were changed or 0 if nothing was changed.

RBTI_FORM_ALIAS

This variable holds the name of focused form, if used AS alias.

RBTI_FORM_COLNAME

This variable holds the name of focused column DB Control on form.

RBTI_FORM_COLVALUE

This variable holds the value of focused column DB Control on form.

RBTI_FORM_COMPID

This variable holds the value of focused DB/Variable Edit control's Component ID, if defined.

RBTI_FORM_DATATYPE

This variable holds the data type of focused column DB Control on form.

RBTI_FORM_DIRTYVAR

Returns 1 if any Variable Control value(s) in form were changed or 0 if nothing was changed.

RBTI_FORM_FORMNAME

This variable holds the name of the current form. Particularly useful when using the form-in-a-form technique and multiple forms are running at the same time.

RBTI_FORM_MODE

This variable holds the value of current mode of the form, such as ENTER, EDIT or BROWSE.

When the form is brought-up as ENTER USING formname ... the value for RBTI_FORM_MODE will be returned as 'ENTER'.

When the form is brought-up as EDIT USING formname ... the value for RBTI_FORM_MODE will be returned as 'EDIT'.

When the form is brought-up as BROWSE USING formname ... the value for RBTI_FORM_MODE will be returned as 'BROWSE'.

RBTI_FORM_TBLNAME

This variable holds the name of the current table in a form. This is especially useful when used within a multi-table form.

RBTI_FORM_VARNAME

This variable holds the name of focused Variable Control on form.

RBTI_FORM_VARVALUE

This variable holds the value of focused Variable Control on form.

8.5 Controlling Date/Time Picker Drop-Down

Did you know that you can control the drop-down option of the DB Date/Time Picker or Variable Date/Time Picker control by simply using the following PROPERTY command?

```
PROPERTY <DateTimePickerCompID> OPEN 'TRUE'  
RETURN
```

That will open the DB/Variable Date/Time Picker drop-down calendar, on demand.

8.6 Controlling TABLE Add/Delete Row Properties

Did you know that you can control the "Add" or "Delete" Rows options of Table Settings within a Form using the following PROPERTY command parameters?

- ENABLE_ADD_NEW_ROWS
- DISABLE_ADD_NEW_ROWS
- ENABLE_DELETE_ROWS
- DISABLE_DELETE_ROWS

Examples:

```
-- To enable the option for "Add New Rows to the Table":  
PROPERTY TABLE tablename ENABLE_ADD_NEW_ROWS  
RETURN
```

```
-- To disable the option for "Add New Rows to the Table":  
PROPERTY TABLE tablename DISABLE_ADD_NEW_ROWS  
RETURN
```

```
-- To enable the option for "Delete Rows":  
PROPERTY TABLE tablename ENABLE_DELETE_ROWS  
RETURN
```

```
-- To disable the option for "Delete Rows":  
PROPERTY TABLE tablename DISABLE_DELETE_ROWS  
RETURN
```

8.7 Copy and Paste Custom Form Actions

Did you know that you can copy a Custom Form Action from a form, and paste it into another form?

Buttons for "Copy" and "Paste" have been added to the Action Designer for the Forms and External Form File modules, to allow users to copy and paste selected, or all, Custom Form Actions.

Please note the "Copy" and "Paste" buttons are located next to the "Up" and "Down" arrow buttons, which reorder the location of a Custom Form Action.

In addition, you may also use [Ctrl+C] to copy selected action(s) and [Ctrl+V] to paste.

Custom Form Action can now be easily moved from one form to another!

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.5.11212 or higher)

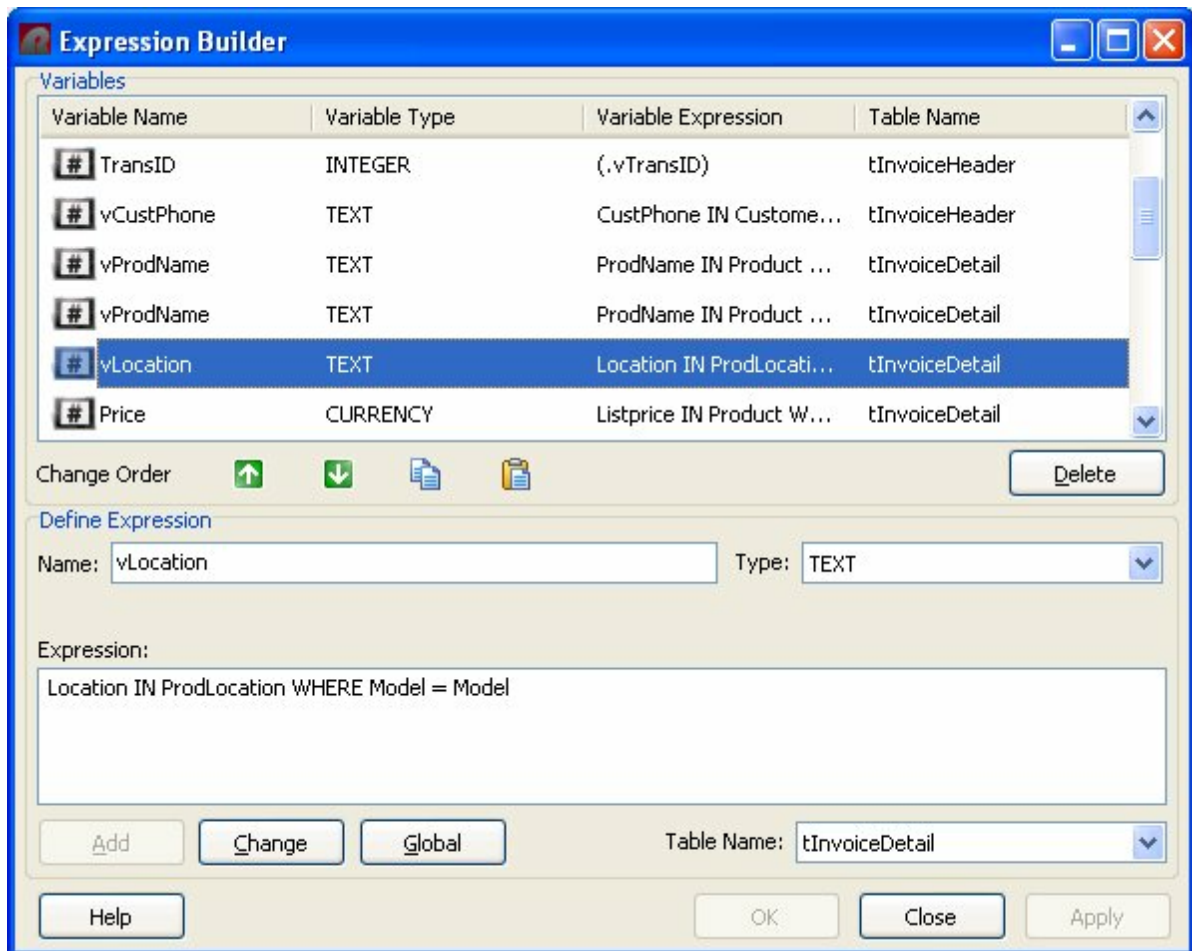
8.8 Copy and Paste Expression Builder Variables_2

Did you know that you can copy a form variable from the Expression Builder, and paste it into another form?

Buttons for "Copy" and "Paste" have been added to the Expression Builders for the Form, Report, and Label modules, to allow users to copy and paste selected, or all, variables.

Please note the "Copy" and "Paste" buttons are located next to the "Up" and "Down" arrow buttons, which reorder the location of a variable in the Expression Builder.

In addition, you may also use [Ctrl+C] to copy selected expression(s) and [Ctrl+V] to paste expression (s) while placing the cursor over the expression builder window.



Variables and Expressions can now be easily moved from form to form, label to label, and report to report!

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.5.11111 or higher)

8.9 Copy and Paste Menu Bar Items

Did you know that you can copy a Menu Bar Item from a form, and paste it into another form?

Buttons for "Copy" and "Paste" have been added to the Menu Bar Designer for the Forms and External Form File modules, to allow users to copy and paste selected, or all, items.

In addition, you may also use [Ctrl+C] to copy selected item(s) and [Ctrl+V] to paste.

Menu Bar Items can now be easily moved from one form to another!

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.5.11111 or higher)

8.10 Copy and Paste Tree View Nodes

Did you know that you can copy and paste nodes within the Tree View control?

Buttons for "Copy" and "Paste" have been added to the Tree View control to allow users to copy and paste nodes.

When a node is copied, all sub-items are copied with the main node.

Nodes can also be copied from one form to another.

In addition, you may also use [Ctrl+C] to copy the selected node and [Ctrl+V] to paste.

Tree View Nodes can now be easily moved into the same Tree View, or into another form!

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.5.11111 or higher)

8.11 Copying and Pasting Windows Clipboard Data in Forms

Did you know that you can copy and paste any image or text to and from the Windows Clipboard to any designated control on a form using the PROPERTY command?

The following PROPERTY command parameters are now supported:

- CopyToClipboard
- CutToClipboard
- PasteFromClipboard

Here's how:

- To copy images or text data TO Windows Clipboard

```
PROPERTY <ComponentID> CopyToClipboard 'TRUE'  
RETURN
```

Supported Form Controls:

- DB Edit
- DB Memo
- DB Image
- Variable Edit
- Variable Memo
- Variable Image

2. To cut images or text data TO Windows Clipboard

```
PROPERTY <ComponentID> CutToClipboard 'TRUE'
RETURN
```

Supported Form Controls:

- DB Edit
- DB Memo
- DB Image
- Variable Edit
- Variable Memo
- Variable Image

3. To paste images or text data FROM Windows Clipboard

-- Example 01

-- To paste Windows Clipboard BLOB Data into DB/VAR Image Field

```
PROPERTY <BLOBControlComponentID> PasteFromClipboard 'TRUE'
RETURN
```

-- Example 02

-- To paste Windows Clipboard Text Data into DB/VAR Edit/Memo Field

```
PROPERTY <EditMemoControlComponentID> PasteFromClipboard 'TRUE'
RETURN
```

-- Example 03

-- To paste Windows Clipboard BLOB Data into focused DB/VAR Image Field

```
PROPERTY RBASE_FORM PasteFromClipboard 'TRUE'
RETURN
```

-- Example 04

-- To paste Windows Clipboard Text Data into focused DB/VAR Edit/Memo Field

```
PROPERTY RBASE_FORM PasteFromClipboard 'TRUE'
RETURN
```

Supported Versions:

- R:BASE 7.6 (Build 7.6.2.31224 or higher) for Windows
- R:BASE (C/S:1) 7.6 (Build 7.6.2.31224 or higher) for Windows
- R:BASE Turbo (Build 7.6.2.31224 or higher) for Windows

8.12 Creating a Dynamic TreeView Object

Did you know that you can create a dynamic TreeView object in forms using the CREATEOBJECT command?

Syntax:

```
CREATEOBJECT <FormObjectName> 'ComponentID' 'Parent' T L W H
```

Here's an example to create a dynamic TreeView object with Node Items and Sub-Items.

```
-- Start here
-- Create TreeView Object
CREATEOBJECT TreeView 'TreeView' 'RBASE_FORM' 5 10 186 441
PROPERTY TreeView INIT 'TRUE'
```

```

-- Add Nodes (Items and Sub-Items)
-- Create First Item
CREATEOBJECT TREENODE Node1 TreeView 0 0 0 0
PROPERTY Node1 TEXT 'Node 1'
PROPERTY Node1 INIT 'TRUE'

-- Add Sub-Item to First Item
CREATEOBJECT TREENODE Node11 TreeView|Node1 0 0 0 0
PROPERTY Node11 TEXT 'Node 1 - 1'
PROPERTY Node11 INIT 'TRUE'

-- Create Second Item
CREATEOBJECT TREENODE Node2 TreeView 0 0 0 0
PROPERTY Node2 TEXT 'Node 2'
PROPERTY Node2 INIT 'TRUE'

-- Add Sub-Item to Second Item
CREATEOBJECT TREENODE Node21 TreeView|Node2 0 0 0 0
PROPERTY Node21 TEXT 'Node 2 - 1'
PROPERTY Node21 INIT 'TRUE'
RETURN
-- End here

--To delete the dynamically created TreeView object
DELETEOBJECT TreeView
RETURN

```

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.3.30509 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.3.30509 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.17.30509 or higher)

8.13 Creating a Playlist for Windows Media Player

Did you know that you can create a playlist for the Windows Media Player ActiveX Control and then play several files in a continuous mode using the PROPERTY command in form?

Here's how:

1. Using RBEedit or any text editor, create a file with ".m3u" extension, such as:

```

-- PlayList.m3u
D:\MyStuff\Dave_Brubeck_Take5.mp3
D:\MyStuff\Shine on You Crazy Diamond.mp3
D:\MyStuff\Pink_Floyd_Live_At_Pompeii.mpg
D:\MyStuff\Live 8 Performance - Pink Floyd.mpg
D:\MyStuff\R:BASE 7.6 for Windows 101.avi
D:\MyStuff\R:BASE 7.6 for Windows Step-by-Step.avi

```

Notice that you can mix and match all sorts of formats supported by Windows Media Player.

2. Save the file as PlayList.m3u
3. Download the sample application posted on 02/14/2006

<http://www.razzak.com/fte>

<http://www.razzak.com/sampleapplications>

"Integrating Windows Media Player ActiveX Control in Forms"

4. Use the following PROPERTY command to dynamically load the playlist.

```
PROPERTY MediaPlayer 'CALL_PROCEDURE CLOSE' ''
PROPERTY MediaPlayer 'URL' PlayList.m3u
```

5. You may also modify the "Load File" routine in sample application to manually load a playlist as follows:

```
-- Load File routine for Windows Media Player ActiveX
CLEAR VAR vFileName
SET VAR vFileName TEXT = NULL
PLUGINS LoadFileName.RBL vFileName +
|FULLPATH ON +
|TITLE Select File +
|NO_LONG_NAMES OFF +
|FILTER +
AVI Files(*.AVI)#*.AVI# +
PLAY List Files(*.M3U)#*.M3U# +
MP3 Files(*.MP3)#*.MP3# +
MPEG Files(*.MPG)#*.MPG# +
WMV Files(*.WMV)#*.WMV# +
All Files(*.*)#*.* +
|INITIAL_DIR C:\
IF (vFileName = NULL) OR (vFileName = '[Esc]') THEN
RETURN
ENDIF
PROPERTY MediaPlayer 'CALL_PROCEDURE CLOSE' ''
PROPERTY MediaPlayer 'URL' .vFileName
RETURN
```

8.14 Customizing DB Grid Column Properties

By default, placing the DB Grid control on the form and assigning the appropriate table will use each column to be included in the DB Grid when displayed. However, if you wish to include only a selected column, you'll have to use the [Columns] option of the DB Grid Properties.

Once you select specific columns for DB Grid in selected columns panel, you can individually customize each column property by highlighting the column and then clicking on the "gear" icon. Using this option, you may customize the following Column Properties:

- General (Column/Title Properties)
- Pre-Defined Values
- Expression

You'll have to go through each column, one at a time, to customize individual column properties.

However, did you know that you can select more than one column (using Shift+Click, Click+Ctrl+Click, or Ctrl+Click), and then use the Right-Click to change the following column properties all at once?

Using that approach, you can customize the following column properties:

- Title Properties (Alignment, Color, Font)
- Column Properties (Alignment, Color, Font)
- Set Read Only ON
- Set Read Only OFF

For samples of customized DB Grid Columns, take a look at the following forms included with RRBYW10.

- DBGridListBox
- DBGridLookupList
- DBGridProperties
- DBGridWithPickList
- SalesTransactions

Summary:

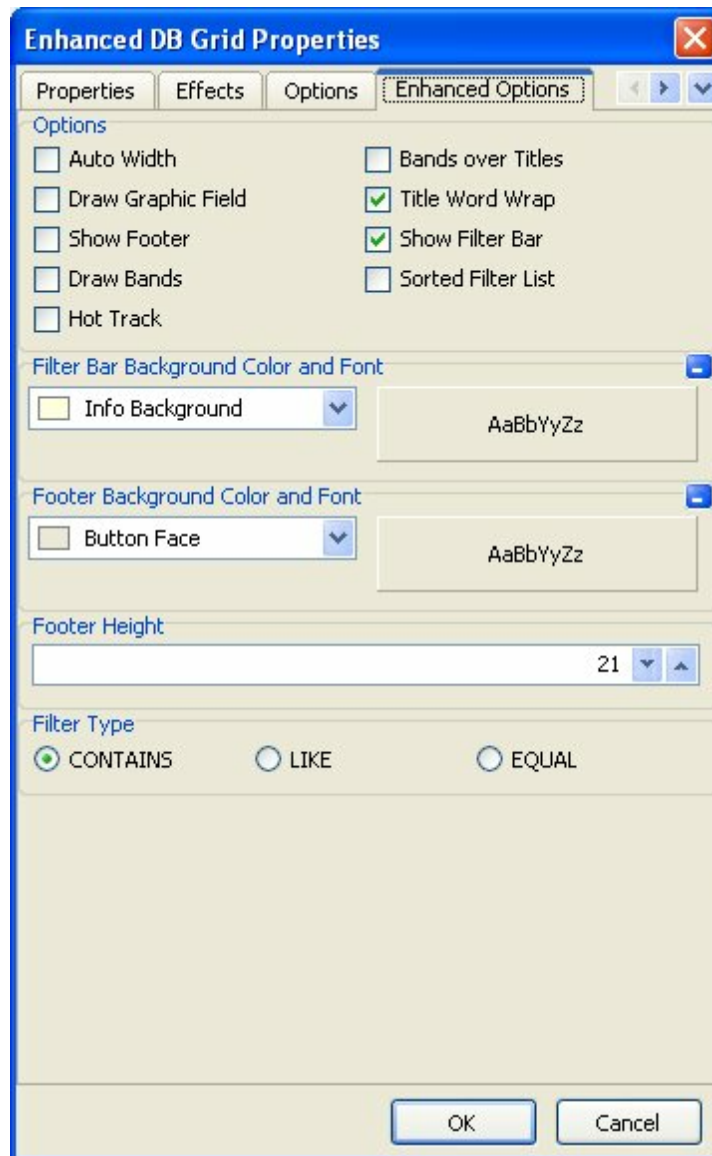
Highlighting all columns and then clicking on the "gear" icon will only modify the properties of "Last" column. However, if you wish to modify the properties of all selected columns, you'll need to use the right-click and then select the appropriate property from the speed menu.

8.15 Customizing Filter Options for the Enhanced DB Grid Control

When using the Enhanced DB Grid Control and selecting the option to "Show Filter Bar", the filter type default is always set to "CONTAINS".

Did you know that you can customize the filter option to use additional conditions such as "LIKE" or "EQUAL"? Here's how:

Form Designer > Enhanced DB Grid Control > Properties > Enhanced Options ...



Supported Versions:

- R:BASE eXtreme 9.0 (Build: 9.0.1.131028 or higher)

8.16 Customizing Form Caption Button Colors

Using the latest updates of R:BASE 7.6 and Turbo V-8, you can customize the Form Caption Button Colors.

1. Launch the Form Designer
2. Open the Form Properties with the hot key [F11]
3. Within Form Properties, choose the "Caption Buttons" tab
4. Add [+] a new caption button or Change existing caption button

Take notice of the following caption button properties:

Caption:

Hint:

Width:

Background Color:
Font Color:
Component ID:
EEPs:

Ultimately, using the PROPERTY command, you may modify these options as you wish.

Examples:

```
PROPERTY CaptionButtonComponnetID CAPTION 'test value'  
PROPERTY CaptionButtonComponnetID HINT 'text value'  
PROPERTY CaptionButtonComponnetID WIDTH nnn  
PROPERTY CaptionButtonComponnetID COLOR 'color value'  
PROPERTY CaptionButtonComponnetID FONT_COLOR 'color value'
```

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.1.30806 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.1.30806 or higher)
- R:BASE Turbo V-8 (Build: 8.0.15.30806 or higher)

8.17 Defining a Conditional Background Color of Row in a DB Grid

Did you know that you can conditionally define the background color of a row in a DBGrid? Each individual row can have its own defined color.

R:BASE now includes an option of defining DBGrid Row Background color based on a color value specified in a column.

Here's how:

1. Start R:BASE
2. Launch the Form Designer > choose DB Grid Control > Object Properties ...
3. Under DB Grid Properties > choose Effects ...
4. Select Row Background Color Field
5. Select the column name with color value defined in a table associated with DB Grid

A sample application is also included on "RBG76 SAT CD" to demonstrate the use of such feature and more ...

8.18 Defining Custom EEPs for "On Roll Up" and "On Roll Down"

R:BASE eXtreme 9.0 (32 and 64) include a cool option of Collapsible Roll-up forms, a form that will reduce its height to nothing but the title bar when clicked.

To enable the roll up option from within the Form Designer:

1. Open a form's "Form Properties"
2. Select the "Dynamic Caption" tab
3. Enable the "Roll Up Button" check box

By checking this option, you may create a roll-down and roll-up effect for a form when a user right-clicks its title bar button.

In addition, now you can define a Form Custom EEP "On Roll Up" and "On Roll Down" to control anything you can imagine.

Form Designer | Form Properties | EEPs ...

Notice the two additional EEP options for:

- On Roll Up
- On Roll Down

Supported Versions:

- R:BASE eXtreme 9.0 (Builds: 9.0.1.131028 or higher)

8.19 Defining Hint Expressions for DB Grid Columns

Did you know that you can define a descriptive hint based on an expression for a column(s) used in DB Grid?

Let's say you have a DB Grid for the InvoiceHeader table with the following columns:

DBGrid Properties (Hint Expression for CustID and EmpID)

Invoice No	Cust ID	Emp ID	Invoice Date	Net Amount	Freight	Tax	Invoice Total
1001	121	104	01/05/2007	\$17,560.00	\$175.60	\$1,422.36	\$19,157.96
1002	127	102	01/05/2007	\$13,941.00	\$139.41	\$1,129.22	\$15,209.63
1003	124	107	01/06/2007	\$895.50	\$8.96	\$72.54	\$977.00
1004	121	104	02/01/2007	\$1,672.00	\$16.72	\$135.43	\$1,824.15
1005	109	110	02/01/2007	\$16,155.00	\$161.55	\$1,308.56	\$17,625.11
1006	116	110	03/01/2007	\$3,080.00	\$30.80	\$249.48	\$3,360.28
1007	112	109	03/01/2007	\$7,024.00	\$70.24	\$568.94	\$7,663.18
1008	103	103	03/20/2007	\$4,158.00	\$41.58	\$336.80	\$4,536.38
1009	100	105	03/21/2007	\$7,392.00	\$73.92	\$598.75	\$8,064.67
1010	106	106	03/23/2007	\$2,151.00	\$21.51	\$174.23	\$2,346.74
1011	117	108	04/01/2007	\$5,544.00	\$55.44	\$449.06	\$6,048.50
1012	115	102	04/02/2007	\$5,773.50	\$57.74	\$467.65	\$6,298.89
1013	104	108	05/01/2007	\$4,477.50	\$44.78	\$362.68	\$4,884.96
1014	126	102	05/02/2007	\$1,881.00	\$18.81	\$152.36	\$2,052.17
1015	120	101	05/15/2007	\$1,701.00	\$17.01	\$137.78	\$1,855.79
1016	122	105	05/16/2007	\$3,913.95	\$39.14	\$317.03	\$4,270.12
1017	122	109	06/01/2007	\$4,252.50	\$42.53	\$344.45	\$4,639.48
1018	101	103	06/02/2007	\$1,701.00	\$17.01	\$137.78	\$1,855.79
1019	111	106	06/06/2007	\$1,890.00	\$18.90	\$153.09	\$2,061.99

Now, if you would like to display a hint with the actual Customer Name or Employee Name when mousing over the CustID or EmpID columns, you can customize these columns using the new "Hint Expression" feature in the DB Grid Column Properties.

1. Launch the Form Designer and open the Properties window for a new or existing DB Grid Control
2. Select the "Columns" tab, Select the Column "CustID" and choose the "Column Properties" button
3. From the "Column Properties" window, select the "Hint Expressions" tab

While defining the expression for selected column, you can also customize the Hint Font and the Hint Background Color, if you wish.

The screenshot shows the 'Column Properties' dialog box with the 'Hint Expression' tab selected. The 'Use Hint Expression' checkbox is checked. The 'Expression' text box contains the SQL query: 'Company IN Customer WHERE CustID = CustID'. The 'Hint Font' preview shows 'AaBbYyZz' in red. The 'Hint Background Color' dropdown is set to 'InfoBk'. At the bottom, the 'Read Only' and 'Title Clickable' checkboxes are checked, and 'OK' and 'Cancel' buttons are visible.

Save the form and use the form preview option to see the results.

Notice the Company Name displayed as a hint for the second Customer with CustID 127:

DBGrid Properties (Hint Expression for CustID and EmpID)

Invoice No	Cust ID	Emp ID	Invoice Date	Net Amount	Freight	Tax	Invoice Total
1001	121	104	01/05/2007	\$17,560.00	\$175.60	\$1,422.36	\$19,157.96
1002	RAM Data Systems, Inc.		01/05/2007	\$13,941.00	\$139.41	\$1,129.22	\$15,209.63
1003	124	107	01/06/2007	\$895.50	\$8.96	\$72.54	\$977.00
1004	121	104	02/01/2007	\$1,672.00	\$16.72	\$135.43	\$1,824.15
1005	109	110	02/01/2007	\$16,155.00	\$161.55	\$1,308.56	\$17,625.11
1006	116	110	03/01/2007	\$3,080.00	\$30.80	\$249.48	\$3,360.28
1007	112	109	03/01/2007	\$7,024.00	\$70.24	\$568.94	\$7,663.18
1008	103	103	03/20/2007	\$4,158.00	\$41.58	\$336.80	\$4,536.38
1009	100	105	03/21/2007	\$7,392.00	\$73.92	\$598.75	\$8,064.67
1010	106	106	03/23/2007	\$2,151.00	\$21.51	\$174.23	\$2,346.74
1011	117	108	04/01/2007	\$5,544.00	\$55.44	\$443.06	\$6,048.50
1012	115	102	04/02/2007	\$5,773.50	\$57.74	\$467.65	\$6,298.89
1013	104	108	05/01/2007	\$4,477.50	\$44.78	\$362.68	\$4,884.96
1014	126	102	05/02/2007	\$1,881.00	\$18.81	\$152.36	\$2,052.17
1015	120	101	05/15/2007	\$1,701.00	\$17.01	\$137.78	\$1,855.79
1016	122	105	05/16/2007	\$3,913.95	\$39.14	\$317.03	\$4,270.12
1017	122	109	06/01/2007	\$4,252.50	\$42.53	\$344.45	\$4,639.48
1018	101	103	06/02/2007	\$1,701.00	\$17.01	\$137.78	\$1,855.79
1019	111	106	06/06/2007	\$1,890.00	\$18.90	\$153.09	\$2,061.99

Notice the Employee Name displayed as a hint for the second Employee with EmpID 102:

DBGrid Properties (Hint Expression for CustID and EmpID)

Invoice No	Cust ID	Emp ID	Invoice Date	Net Amount	Freight	Tax	Invoice Total
1001	121	104	01/05/2007	\$17,560.00	\$175.60	\$1,422.36	\$19,157.96
1002	127	Hernandez, Ernest	01/05/2007	\$13,941.00	\$139.41	\$1,129.22	\$15,209.63
1003	124	107	01/06/2007	\$895.50	\$8.96	\$72.54	\$977.00
1004	121	104	02/01/2007	\$1,672.00	\$16.72	\$135.43	\$1,824.15
1005	109	110	02/01/2007	\$16,155.00	\$161.55	\$1,308.56	\$17,625.11
1006	116	110	03/01/2007	\$3,080.00	\$30.80	\$249.48	\$3,360.28
1007	112	109	03/01/2007	\$7,024.00	\$70.24	\$568.94	\$7,663.18
1008	103	103	03/20/2007	\$4,158.00	\$41.58	\$336.80	\$4,536.38
1009	100	105	03/21/2007	\$7,392.00	\$73.92	\$598.75	\$8,064.67
1010	106	106	03/23/2007	\$2,151.00	\$21.51	\$174.23	\$2,346.74
1011	117	108	04/01/2007	\$5,544.00	\$55.44	\$443.06	\$6,048.50
1012	115	102	04/02/2007	\$5,773.50	\$57.74	\$467.65	\$6,298.89
1013	104	108	05/01/2007	\$4,477.50	\$44.78	\$362.68	\$4,884.96
1014	126	102	05/02/2007	\$1,881.00	\$18.81	\$152.36	\$2,052.17
1015	120	101	05/15/2007	\$1,701.00	\$17.01	\$137.78	\$1,855.79
1016	122	105	05/16/2007	\$3,913.95	\$39.14	\$317.03	\$4,270.12
1017	122	109	06/01/2007	\$4,252.50	\$42.53	\$344.45	\$4,639.48
1018	101	103	06/02/2007	\$1,701.00	\$17.01	\$137.78	\$1,855.79
1019	111	106	06/06/2007	\$1,890.00	\$18.90	\$153.09	\$2,061.99

Supported Versions:

R:BASE 7.6 for Windows (Build 7.6.2.31130 or higher ...)

R:BASE 7.6 (C/S:I) for Windows (Build 7.6.2.31130 or higher)

R:BASE Turbo V-8 for Windows (Build 8.0.16.1130 or higher)

8.20 Defining TEMPORARY TABLES/VIEWS with Actions

Did you know that now you can define all Form, Label or Report related TEMPORARY TABLES/VIEWS in "On Before Design Action..."?

The latest R:BASE supports the option to define Form, Label or Report Master and Slave tables or views based on TEMPORARY tables or view before the form, label or report is brought up in the designer.

This enhancement will eliminate the most common mistake when opening the form, label or report based on temporary table/view, if not pre-defined at the R> prompt or in a startup command file.

For example, if you open the "SalesOrder" form in RRBW10 with pre-defining the required temporary tables (tInvoiceHeader and tInvoiceDetail), you'll notice the "-ERROR- Table tInvoiceHeader Does Not Exist!" and you are not able to open the form until you RUN TempTables.RMD to define all temporary tables/views required for forms/labels/reports.

Well, now all you have to do is include the following block of code in SalesOrder form as "On Before Design Action...".

Here's how:

Form Designer | Layout | On Before Design Action...

```
SET ERROR MESSAGE 2038 OFF
```

```

DROP TABLE tInvoiceHeader
CREATE TEMPORARY TABLE `tInvoiceHeader` +
  (`TransID` INTEGER, +
  `CustID` INTEGER, +
  `EmpID` INTEGER, +
  `TransDate` DATE, +
  `BillToCompany` TEXT (40), +
  `BillToAddress` TEXT (30), +
  `BillToCity` TEXT (20), +
  `BillToState` TEXT (2), +
  `BillToZip` TEXT (10), +
  `ShipToCompany` TEXT (40), +
  `ShipToAddress` TEXT (30), +
  `ShipToCity` TEXT (20), +
  `ShipToState` TEXT (2), +
  `ShipToZip` TEXT (10), +
  `NetAmount` CURRENCY, +
  `Freight`= ( netamount* .01) CURRENCY, +
  `Tax`= ( netamount* .081) CURRENCY, +
  `InvoiceTotal`= (NetAmount+Freight+Tax) CURRENCY)
COMMENT ON TABLE tInvoiceHeader IS 'Invoice Header Information'
DROP TABLE tInvoiceDetail
CREATE TEMPORARY TABLE `tInvoiceDetail` +
  (`TransID` INTEGER, +
  `DetailNum` INTEGER, +
  `Model` TEXT (6), +
  `Units` INTEGER, +
  `Price` CURRENCY, +
  `Discount` REAL, +
  `SalePrice`= (Price-(Price*Discount/100)) CURRENCY, +
  `ExtPrice`= (Units* SalePrice) CURRENCY)
COMMENT ON TABLE tInvoiceDetail IS 'Invoice Detail Information'
SET ERROR MESSAGE 2038 ON
RETURN

```

Save the form and close the form designer.

If you disconnect the database (when all temporary tables/view are automatically dropped), you'll never have to worry about opening that form in the form designer next time. The required TEMPORARY tables will automatically be defined before opening the form in form designer.

These features also allow your forms, labels and reports to be totally portable modules for your ever-changing applications.

8.21 Defining the Number of Items in Pop-up Menus

Did you know that you can define more than 18 items/lines to be displayed for Pop-up Menu used in DB Edit or Variable Edit Controls?

Using the latest versions/updates, you are no longer limited to 18 items/lines. You may even pick your own number, if you wish.

Previous versions are restricted to 18 items/lines for Pop-up Menus.

Form Designer > DB Edit Control > Object Property > Pop-up Menu
 Form Designer > Variable Edit Control > Object Property > Po-up Menu

8.22 Designing Custom Pop-up Menus

Did you know that now you can customize all Pop-up Menus for DB Edit and Variable Edit Controls to look like the ListBox with Show Lines, Title Background Color, Title Font/Color, List Background Color, and List Font/Color?

To customize the DB Edit and Variable Edit Pop-up Menus:

Form Designer > DB Edit > DB Edit Properties > Pop-up Menus

or

Form Designer > DB Edit > Variable Edit Properties > Pop-up Menus

Notice the following additional options:

- Show Lines (to separate multiple columns for a better look)
- Title Font and Color
- List Font and Color
- Title Background Color
- List Background Color

Imagine the possibilities!

8.23 Disabling Double Click for DB/VAR Memo Controls

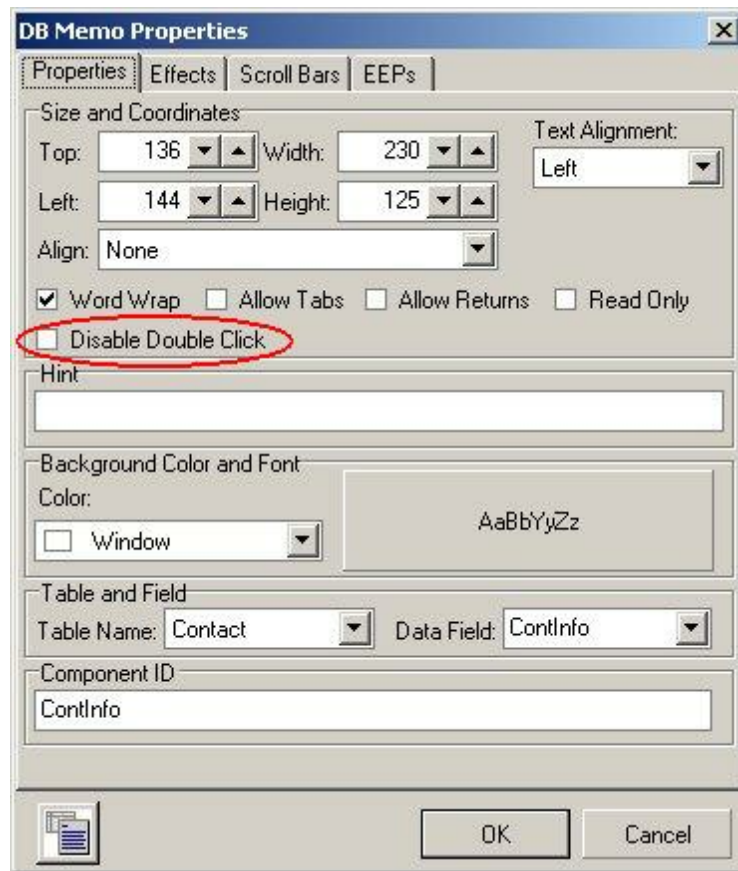
When double clicking on any NOTE or BLOB (VARBIT, VARCHAR) controls in forms, an integrated Note/BLOB Field Viewer/Editor is used to manage the plain text, formatted text and images stored as BLOBs.

However, for some reason, if you wish to disable the Note/BLOB Field Viewer/Editor when double clicked, you may use a *new* option of the Object Property or the PROPERTY command to achieve such objective.

Here's how:

1. Form Designer | DB Memo Control or Variable Memo Control Object Properties | Properties

Notice the additional option: "[] Disable Double Click", where the default is un-checked.



Checking this option will not launch the Note/BLOB Field Viewer/Editor when using the double click.

2. You may also use the following PROPERTY command to disable the double click for DB/Variable Memo controls:

```
PROPERTY <DBVARMemoControlCompID> DISABLEDOUBLECLICK 'TRUE'
RETURN
```

Supported Versions:

- R:BASE 7.6 (Build 7.6.2.31211 or higher) for Windows
- R:BASE (C/S:I) 7.6 (Build 7.6.2.31211 or higher) for Windows
- R:BASE Turbo (Build 7.6.2.31211 or higher) for Windows

8.24 Displaying the Current Table/Field on the Status Bar

Did you know that you can display the Current Table and Current Field on the form Status Bar?

After placing the Status Bar control, you may add one of the following Status Bar Panes, including "Current Table" and "Current Field":

- Clock Status
- Key Status
- Simple Status
- Glyph Status
- Marquee Status
- Table State Status

- DB Field Status
- Current Table
- Current Field

Record: 28 of 31

Existing Customers

Company:	RAM Data Systems, Inc.
Address:	3935 Old William Penn Highway
City:	Murrysville
State/Zip Code:	PA 15668-1854
Phone:	724-733-0053
Fax:	724-733-0198
Mod level:	1
Last Update Date:	03/27/2008
Last Update Time:	10:30 AM
Last Order Date:	03/27/2008
Customer URL:	http://www.ramdatasystems.com
Customer E-Mail:	info@ramdatasystems.com
Current Status:	A
Payment Terms:	Net 30 Days +
Credit Limit:	\$100,000.00

Table: Customer Field: Company NUM CAPS

Navigation buttons: First, Prev, Next, Last, Add, Del, Save, Cancel, Close

Supported Versions:

- R:BASE 7.6 (Build 7.6.3.30404 or higher) for Windows
- R:BASE C/S:I 7.6 (Build 7.6.3.30404 or higher) for Windows
- R:BASE Turbo (Build 8.0.17.30404 or higher) for Windows

8.25 Disabling the Sort Feature for DB Grid Columns

Did you know that you can disable the column sort option used in DB Grid?

When a DB Grid control is placed on a form, by default, every column includes the ability to sort (Asc/Des) when clicking on the column title; displaying the current sort state. However, there may be application instances, where you may not want your users to change the default sort state.

A new option [] Title Clickable has been added for customizing the individual column properties for DB Grids. The default is set to checked, i.e., Title Clickable.

A new PROPERTY command is also introduced to manage the column title properties:

Syntax:

```
PROPERTY <DBGRIDComponentID> Columns[n]-> ClickableTitle 'value'
```

Example:

```
PROPERTY DBGRID Columns[0]-> ClickableTitle 'FALSE'
```

This property command will disable the sort feature for the first DB Grid column.

Supported Versions:

- R:BASE 7.6 for Windows (Build 7.6.2.31130 or higher ...)
- R:BASE 7.6 (C/S:I) for Windows (Build 7.6.2.31130 or higher)
- R:BASE Turbo V-8 for Windows (Build 8.0.16.1130 or higher)

8.26 Displaying the Record Number in a DB Grid

Did you know that you can display the record number in DB Grid?

Here's how:

1. Form Designer > DB Grid Control > Properties > Option
2. [x] Check the option for "Show Record Number" and select the "OK" button
3. Save and close the Form Designer
4. Database Explorer > Select Form > Run Form

The left column will display the actual record number for the table/view.

Here's a visual presentation of such feature in R:BASE:

Record 11 of 31						
	Customer ID	Company Name	City	State	Zip Code	Phone Number
1	100	Computer Warehouse - II	Boston	CA	02178	617-341-2189
2	101	Microtech University - I	Boston	MA	02162	617-423-8921
3	102	Industrial Computers Inc.	Denver	CO	80214	303-239-7823
4	103	Computer Mountain Inc.,	Denver	CO	80214	303-271-1500
5	104	Industrial Concepts Inc.	Livermore	CA	94550	415-878-5600
6	105	PC Consultation And Design	Palo Alto	CA	94321	415-892-6745
7	106	Computer Warehouse - I	Bloomington	IN	47401	812-701-1002
8	107	Midtown Computer Co.	Chicago	IL	60637	312-277-5000
9	108	Nordan Distributors, Inc.	Two Dot	IL	47401	312-555-1212
10	109	Compdat Computer Consulting	Miami	FL	33128	305-767-4309
11	110	Soltech Database Design	Mercer Island	WA	98040	206-827-3309
12	111	Microtech University - II	Appleton	WI	54911	414-245-9867
13	112	Computer Medical Ctr.	Ft Lauderdale	FL	33309	305-365-7803
14	113	State University	Bedford	MA	01730	617-268-2200
15	114	Olympic Sales	Newton	MA	02160	617-885-3320
16	115	Datacrafters Infosystems	Lynnwood	WA	98037	206-323-4365
17	116	Compumasters Computer Supply	Concord	CA	94521	613-226-7171
18	117	Data Solutions	Olympia	WA	98504	206-321-5606
19	118	Open Systems I/O	Laguna Beach	CA	92652	714-763-9923
20	119	Modular Software, Inc.	Las Vegas	NV	89104	702-649-9551
21	120	Lanufacturers Discount Computers	Englewood	CO	80112	303-426-8442
22	121	Bytes & Words	Ogden	UT	84403	801-248-4798
23	122	Microcomputer Distribution	Plantation	FL	33317	305-746-2302
24	123	The Data Shop	Austin	TX	78701	512-328-1776
25	124	Baiton and Associates	Stony Brook	NY	11794	516-563-4438
26	125	MIS by Design	Snoqualmie	WA	99026	509-382-8706

8.27 Documenting Form EEPs

Did you know that while in Form Designer, you can document all Embedded Custom EEPs (if defined), as well as External EEPs (if referenced)?

In addition to documenting Custom EEPs (if defined), now you may also document all External EEPs (if referenced). This will help documenting all references related to Form External EEPs when converting legacy database/application to R:BASE 7.6 or Turbo V-8 for Windows.

Here's how:

While in Form Designer, select "Form" > "Document EEPs" from the main Menu Bar.

Four output options are available:

- Printer
- Text File ...
- PDF File ...
- Clipboard

Supported Versions:


- R:BASE 7.6 for Windows (Build: 7.6.4.30611 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.4.30611 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.18.30611 or higher)

8.28 Drawing DB Grid Column Titles with Gradient

Did you know that now you can draw DB Grid Column Titles with Gradient?

Here's a visual presentation of drawing DB Grid Column Titles with Gradient:

Cust ID	Company Name	City	State	Zip Code	Phone Number
124	Barton and Associates	Stony Brook	NY	11794	516-563-4438
129	Blue Ridge Technologies, Inc.	Asheville	NC	28801	828-987-6543
121	Bytes & Words	Ogden	UT	84403	801-248-4798
109	Compdat Computer Consulting	Miami	FL	33128	305-767-4309
116	Compumasters Computer Supply	Concord	CA	94521	613-226-7171
112	Computer Medical Ctr.	Ft Lauderdale	FL	33309	305-365-7803
103	Computer Mountain Inc.,	Denver	CO	80214	303-271-1500
106	Computer Warehouse - I	Bloomington	IN	47401	812-701-1002
100	Computer Warehouse - II	Boston	CA	02178	617-341-2189
117	Data Solutions	Olympia	WA	98504	206-321-5606
115	Datacrafters Infosystems	Lynnwood	WA	98037	206-323-4365
102	Industrial Computers Inc.	Denver	CO	80214	303-239-7823
104	Industrial Concepts Inc.	Livermore	CA	94550	415-878-5600
126	Johnson Technologies	Sunnyvale	CA	94089	408-234-8654
120	Lanufacturers Discount Computers	Englewood	CO	80112	303-426-8442
122	Microcomputer Distribution	Plantation	FL	33317	305-746-2302
101	Microtech University - I	Boston	MA	02162	617-423-8921
111	Microtech University - II	Appleton	WI	54911	414-245-9867
107	Midtown Computer Co.	Chicago	IL	60637	312-277-5000
125	MIS by Design	Snoqualmie	WA	99026	509-382-8706
119	Modular Software, Inc.	Las Vegas	NV	89104	702-649-9551
130	Murysville Technology Center	Murysville	PA	15668-1854	724-733-1234
108	Nordan Distributors, Inc.	Two Dot	IL	47401	312-555-1212
114	Olympic Sales	Newton	MA	02160	617-885-3320
118	Open Systems I/O	Laguna Beach	CA	92652	714-763-9923
105	PC Consultation And Design	Palo Alto	CA	94321	415-892-6745

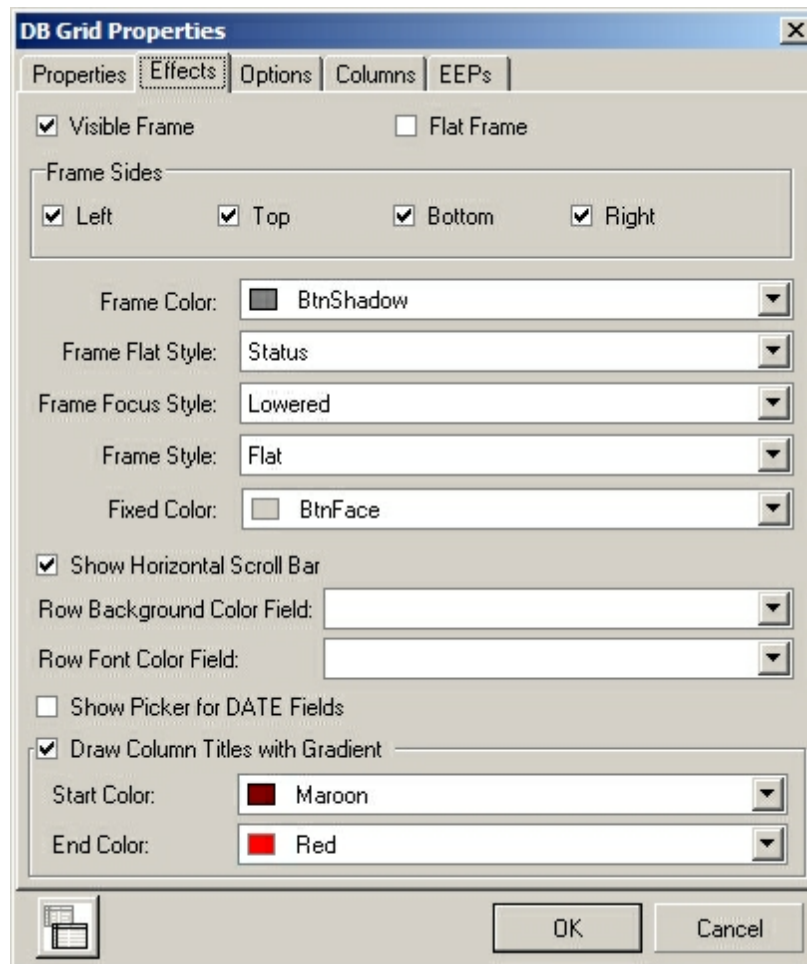
Use Gradient Property for DB Grid Columns Disable Gradient << < > >> ✓ 

Typical DB Grid

Cust ID	Company Name	City	State	Zip Code	Phone Number
124	Barton and Associates	Stony Brook	NY	11794	516-563-4438
129	Blue Ridge Technologies, Inc.	Asheville	NC	28801	828-987-6543
121	Bytes & Words	Ogden	UT	84403	801-248-4798
109	Compdat Computer Consulting	Miami	FL	33128	305-767-4309
116	Compumasters Computer Supply	Concord	CA	94521	613-226-7171
112	Computer Medical Ctr.	Ft Lauderdale	FL	33309	305-365-7803
103	Computer Mountain Inc.,	Denver	CO	80214	303-271-1500
106	Computer Warehouse - I	Bloomington	IN	47401	812-701-1002
100	Computer Warehouse - II	Boston	CA	02178	617-341-2189
117	Data Solutions	Olympia	WA	98504	206-321-5606
115	Datacrafters Infosystems	Lynnwood	WA	98037	206-323-4365
102	Industrial Computers Inc.	Denver	CO	80214	303-239-7823
104	Industrial Concepts Inc.	Livermore	CA	94550	415-878-5600
126	Johnson Technologies	Sunnyvale	CA	94089	408-234-8654
120	Lanufacturers Discount Computers	Englewood	CO	80112	303-426-8442
122	Microcomputer Distribution	Plantation	FL	33317	305-746-2302
101	Microtech University - I	Boston	MA	02162	617-423-8921
111	Microtech University - II	Appleton	WI	54911	414-245-9867
107	Midtown Computer Co.	Chicago	IL	60637	312-277-5000
125	MIS by Design	Snoqualmie	WA	99026	509-382-8706
119	Modular Software, Inc.	Las Vegas	NV	89104	702-649-9551
130	Murysville Technology Center	Murysville	PA	15668-1854	724-733-1234
108	Nordan Distributors, Inc.	Two Dot	IL	47401	312-555-1212
114	Olympic Sales	Newton	MA	02160	617-885-3320
118	Open Systems I/D	Laguna Beach	CA	92652	714-763-9923
105	PC Consultation And Design	Palo Alto	CA	94321	415-892-6745

Use Gradient and Font Property for DB Grid Columns Disable ⏪ ⏩ ⏴ ⏵ ✓ 📄

Drawing DB Grid Column Titles with Gradient



DB Grid Properties

Programmatically, you may use the PROPERTY command to draw gradient and change the font colors for the DB Grid Column Titles on demand, as follows:

Example 01:

```
PROPERTY DBGridCompID DrawGradient 'TRUE'
PROPERTY DBGridCompID GradientStartColor 'SILVER'
PROPERTY DBGridCompID GradientEndColor 'GRAY'
RETURN
```

Example 02:

```
PROPERTY DBGridCompID DrawGradient 'TRUE'
PROPERTY DBGridCompID GradientStartColor 'MAROON'
PROPERTY DBGridCompID GradientEndColor 'RED'
PROPERTY DBGridCompID Titles[%]->FONT_COLOR 'WHITE'
RETURN
```

8.29 Dynamically Changing Band List Properties

Did you know that you can dynamically change the properties of Enhanced DB Grid Band List(s), including the CAPTION and FONT.

Now you may use the following GETPROPERTY/PROPERTY commands:

```
-- To Obtain Band Count in Enhanced DB Grid
GETPROPERTY ComponentID BANDS->COUNT vValue

-- To obtain Current Caption for a Given Band in Enhanced DB Grid
GETPROPERTY ComponentID BANDS[n]->CAPTION vValue

-- To Dynamically Change Caption for a Given Band in Enhanced DB Grid
PROPERTY ComponentID BANDS[n]->CAPTION value

-- To Dynamically Change Font Name for Band(s) in Enhanced DB Grid
PROPERTY ComponentID BANDS->FONT_NAME value

-- To Change Font Color for Band(s) in Enhanced DB Grid
PROPERTY ComponentID BANDS->FONT_COLOR Value

-- To Dynamically Change Font Size for Band(s) in Enhanced DB Grid
PROPERTY ComponentID BANDS->FONT_SIZE value

-- To Dynamically Change Font Height for Band(s) in Enhanced DB Grid
PROPERTY ComponentID BANDS->FONT_HEIGHT value

-- To Dynamically Change Font Bold Style for Band(s) in Enhanced DB Grid
PROPERTY ComponentID BANDS->FONT_BOLD value
Values TRUE/FALSE

-- To Dynamically Change Font Italic Style for Band(s) in Enhanced DB Grid
PROPERTY ComponentID BANDS->FONT_ITALIC value
Values TRUE/FALSE

-- To Dynamically Change Font Strikeout Style for Band(s) in Enhanced DB Grid
PROPERTY ComponentID BANDS->FONT_STRIKEOUT value
Values TRUE/FALSE

-- To Dynamically Change Font Underline Style for Band(s) in Enhanced DB Grid
PROPERTY ComponentID BANDS->FONT_UNDERLINE value
Values TRUE/FALSE

-- Example 01
-- Database: RRBYW17
-- Form Name: RBG91_EnhancDBGrd_BandList_Properties
-- Control: Enhanced DB Grid
-- Related Tables: Customers, InvoiceHeader
-- Component ID: DBGrid_Customers, DBGrid_Invoices
-- Band List Count: 1
-- Bit Button: [Change Band Properties]
-- Custom EEP:
PROPERTY DBGrid_Invoices BANDS[0]->CAPTION 'Selected Customer Invoice
Details'
PROPERTY DBGrid_Invoices BANDS->FONT_NAME Tahoma
PROPERTY DBGrid_Invoices BANDS->FONT_COLOR GREEN
PROPERTY DBGrid_Invoices BANDS->FONT_SIZE 8
PROPERTY DBGrid_Invoices BANDS->FONT_BOLD TRUE
```

RETURN

Enhanced DB Grid Band List Before:

Customers

Company	City	State	Zip Code	Status	Web Site
Modular Software, Inc.	Las Vegas	NV	89104	☑	http://www.msinc.com
Murrysville Technology Center	Murrysville	PA	15668-1854	☑	http://www.mtc.com
Nordan Distributors, Inc.	Two Dot	IL	47401	☑	http://www.mdi.com
Olympic Sales	Newton	MA	02160	☑	http://www.osales.com
Open Systems I/O	Laguna Beach	CA	92652	☑	http://www.osio.com
PC Consultation And Design	Palo Alto	CA	94321	☑	http://www.pccad.com
RAM Data Systems, Inc.	Murrysville	PA	15668-1854	☑	http://www.ramonline.com
Renaissance Computer Company	Asheville	NC	28801	☑	http://www.rccompany.com
Softech Database Design	Mercer Island	WA	98040	☑	http://www.sdd.com
State University	Bedford	MA	01730	☑	http://www.stateu.com
The Data Shop	Austin	TX	78701	☑	http://www.tds.com

Invoices

Invoice No.	Date	Invoice Details			
		Net Amount	Freight	Tax	InvoiceTotal
1002	01/05/2011	\$13,941.00	\$139.41	\$1,129.22	\$15,209.63
1031	01/06/2011	\$10,755.00	\$107.55	\$871.16	\$11,733.71
1039	01/07/2011	\$1,701.00	\$17.01	\$137.78	\$1,855.79
1042	01/08/2011	\$9,868.50	\$98.69	\$799.35	\$10,766.54
1044	01/09/2011	\$5,944.00	\$59.44	\$481.46	\$6,484.90
1053	01/10/2011	\$7,312.50	\$73.13	\$592.31	\$7,977.94
1055	01/11/2011	\$15,551.00	\$155.51	\$1,259.63	\$16,966.14
1057	01/12/2011	\$1,975.50	\$19.76	\$160.02	\$2,155.28
1058	01/13/2011	\$8,616.00	\$86.16	\$697.90	\$9,400.06
		\$325,475.25	\$3,254.80	\$26,363.54	\$355,093.59

Selected Invoice
1055

Print Invoice

Invoice Summary

Change Band Properties

Enhanced DB Grid Band List **After:**

Customers					
Company	City	State	Zip Code	Status	Web Site
Modular Software, Inc.	Las Vegas	NV	89104	<input checked="" type="checkbox"/>	http://www.msinc.com
Murrysville Technology Center	Murrysville	PA	15668-1854	<input checked="" type="checkbox"/>	http://www.mtc.com
Nordan Distributors, Inc.	Two Dot	IL	47401	<input checked="" type="checkbox"/>	http://www.mdi.com
Olympic Sales	Newton	MA	02160	<input checked="" type="checkbox"/>	http://www.osales.com
Open Systems I/O	Laguna Beach	CA	92652	<input checked="" type="checkbox"/>	http://www.osio.com
PC Consultation And Design	Palo Alto	CA	94321	<input checked="" type="checkbox"/>	http://www.pccad.com
RAM Data Systems, Inc.	Murrysville	PA	15668-1854	<input checked="" type="checkbox"/>	http://www.ramonline.com
Renaissance Computer Company	Asheville	NC	28801	<input checked="" type="checkbox"/>	http://www.rccompany.com
Softech Database Design	Mercer Island	WA	98040	<input checked="" type="checkbox"/>	http://www.sdd.com
State University	Bedford	MA	01730	<input checked="" type="checkbox"/>	http://www.stateu.com
The Data Shop	Austin	TX	78701	<input checked="" type="checkbox"/>	http://www.tds.com

Invoices					
Invoice No.	Date	Selected Customer Invoice Details			
		Net Amount	Freight	Tax	Invoice Total
1002	01/05/2011	\$13,941.00	\$139.41	\$1,129.22	\$15,209.63
1031	01/06/2011	\$10,755.00	\$107.55	\$871.16	\$11,733.71
1039	01/07/2011	\$1,701.00	\$17.01	\$137.78	\$1,855.79
1042	01/08/2011	\$9,868.50	\$98.69	\$799.35	\$10,766.54
1044	01/09/2011	\$5,944.00	\$59.44	\$481.46	\$6,484.90
1053	01/10/2011	\$7,312.50	\$73.13	\$592.31	\$7,977.94
1055	01/11/2011	\$15,551.00	\$155.51	\$1,259.63	\$16,966.14
1057	01/12/2011	\$1,975.50	\$19.76	\$160.02	\$2,155.28
1058	01/13/2011	\$8,616.00	\$86.16	\$697.90	\$9,400.06
		\$325,475.25	\$3,254.80	\$26,363.54	\$355,093.59

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.3.10417 or higher)

8.30 Dynamically Passing DB Grid Filter Parameters

In addition to many New and Enhanced Controls and Properties in R:BASE eXtreme 9.1, Enhanced DB Grid in Form Designer includes the option to "Show Filter Bar".

Enabling this option will display a filter bar directly under the titles which allows end-user to enter value to limit the displayed grid records based on matching criteria. You may also pre-define the Filter Pick List by selecting "Column Values", if you wish.

Did you know that you can dynamically pass filter parameters as "On After Start Custom EEP" or "On Demand", using the expanded Enhanced DB Grid Filter PROPERTY commands?

Here is a comprehensive list of supported PROPERTY/GETPROPERTY commands that are specific to Enhanced DB Grid Filter Bar.

```
-- Passing Filter Value for a Given Column Number
-- Syntax
PROPERTY CompID FILTERS[NNN]->VALUE filter_value
-- Example
PROPERTY EDBGridCust FILTERS[2]->VALUE 'CA'

-- Passing Filter Value for Given Column Name
```

```

-- Syntax
PROPERTY CompID FILTERS->COLUMN_NAME->ColName filter_value
-- Example
PROPERTY EDBGridCust FILTERS->COLUMN_NAME->CustState 'CA'

-- Capturing Filter Value for Given Column Number
-- Syntax
GETPROPERTY CompID FILTERS[NNN]->VALUE VarName
-- Example:
GETPROPERTY EDBGridCust FILTERS[2]->VALUE vStateFilter

-- Capturing Filter Value for Given Column Name
-- Syntax
GETPROPERTY CompID FILTERS->COLUMN_NAME->ColName VarName
-- Example
GETPROPERTY EDBGridCust FILTERS->COLUMN_NAME->CustState vValue

-- Clearing Filter Value for Given Column Number
-- Syntax
PROPERTY CompID FILTERS[NNN]->CLEAR_ITEMS TRUE
-- Example
PROPERTY EDBGridCust FILTERS[2]->CLEAR_ITEMS TRUE

-- Clearing Filter Value for Given Column Name
-- Syntax
PROPERTY CompID FILTERS->COLUMN_NAME->ColName->CLEAR_ITEMS TRUE
-- Example
PROPERTY EDBGridCust FILTERS->COLUMN_NAME->CustState->CLEAR_ITEMS TRUE

-- Dynamically Defining Single Filter Item for a Given Column Number
-- Syntax
PROPERTY ComponentID FILTERS[NNN]->ADD_ITEMS Value
-- Example
PROPERTY EnhDBGridCust FILTERS[2]->ADD_ITEMS 'MO'

-- Dynamically Defining Single Filter Item for a Given Column Name
-- Syntax
PROPERTY CompID FILTERS->COLUMN_NAME->ColName->ADD_ITEM ItemValue
-- Example
PROPERTY EDBGridCust FILTERS->COLUMN_NAME->CustState->ADD_ITEMS 'MO'

-- Dynamically Defining Multiple Filter Items for a Given Column Number
-- Syntax
PROPERTY CompID FILTERS[NNN]->ADD_ITEMS Value
-- Example:
PROPERTY EDBGridCust FILTERS[2]->ADD_ITEMS 'MO|HN|NY|CT'

-- Dynamically Defining Multiple Filter Items for a Given Column Name
-- Syntax
PROPERTY CompID FILTERS->COLUMN_NAME->ColName->ADD_ITEMS Value
-- Example
PROPERTY EDBGridCust FILTERS->COLUMN_NAME->CustState->ADD_ITEMS 'MO|HN|NY|
CT'

```

```

-- To repopulate the filter from column values for a given column number
-- Syntax
PROPERTY CompID FILTERS[NNN]->ADD_COLUMN_VALUES TRUE
-- Example
PROPERTY EDBGridCust FILTERS[2]->ADD_COLUMN_VALUES TRUE

-- To repopulate the filter from column values for a given column name
-- Syntax
PROPERTY CompID FILTERS->COLUMN_NAME->ColName->ADD_COLUMN_VALUES TRUE
-- Example
PROPERTY EDBGridCust FILTERS->COLUMN_NAME->CustState->ADD_COLUMN_VALUES
TRUE

-- To clear all filter values at once
-- Syntax
PROPERTY CompID CLEARFILTER TRUE
-- Example
PROPERTY EDBGridCust CLEARFILTER TRUE

```

Have fun implementing these properties in your R:BASE eXtreme 9.1 applications!

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.3.10428 or higher)

8.31 Enabling/Disabling the "Drag and Drop" Feature

Did you know that you can enable or disable the "drag & drop" feature of any form control using the PROPERTY command?

A new DRAGDROPENABLED parameter has been added to the PROPERTY command to enable or disable the "drag & drop" feature of any form control, on demand.

Syntax:

```

PROPERTY <FormControlCompID> DRAGDROPENABLED 'value'
Values: (TRUE/FALSE)

```

-- Example 01 (To enable Drag and Drop feature):

```

PROPERTY <FormControlCompID> DRAGDROPENABLED 'TRUE'
RETURN

```

-- Example 02 (To disable Drag and Drop feature):

```

PROPERTY <FormControlCompID> DRAGDROPENABLED 'FALSE'
RETURN

```

Supported Versions:

- R:BASE 7.6 (Build 7.6.3.30314 or higher) for Windows
- R:BASE C/S:I 7.6 (Build 7.6.3.30314 or higher) for Windows
- R:BASE Turbo (Build 8.0.16.30314 or higher) for Windows

8.32 Enhanced DB Grid Control - Hot Keys

In addition to all enhanced features of Enhanced DB Grid Control in Forms, you may also use the following hot keys to extend the use of Enhanced DB Grid Control.

01. Enhanced DB Grid: Use [Ctrl + F3] to Search Records

The screenshot displays a software window titled "Customers" containing a data grid. A "Record Search" dialog box is overlaid on the grid. The dialog includes a "Value:" input field, a "Search in:" dropdown menu set to "Company", and radio buttons for "in all fields" (selected) and "in field". Below these are "Options" (checked "case sensitive") and "Origin" (radio buttons for "from first record" and "from current record"). The "Record Search" dialog also has "OK" and "Cancel" buttons.

Company	City	State	Zip Code	Status	Web Site
Barton and Associates	Stony Brook	NY	11794	<input checked="" type="checkbox"/>	http://www.ba.com
Blue Ridge Technologies, Inc.	Asheville	NC	28801	<input checked="" type="checkbox"/>	http://www.brtinc.com
Bytes & Words	Ogden	UT	84403	<input checked="" type="checkbox"/>	http://www.bw.com
Compdat Computer Consulting	Miami	FL	33128	<input checked="" type="checkbox"/>	http://www.ccc.com
Compumasters Computer Supply	Concord	CA	94521	<input checked="" type="checkbox"/>	http://www.ccs.com
Computer Medical Ctr.					
Computer Mountain Inc.,					
Computer Warehouse - I					
Computer Warehouse - II					
Data Solutions					
Datacrafters Infosystems					

Invoice No.	Date				InvoiceTotal
1003	01/06/2009				\$977.00
1054	01/14/2009	\$13,572.00	\$135.72	\$1,099.33	\$14,807.05
1059	01/23/2009	\$4,972.50	\$49.73	\$402.77	\$5,425.00
1069	05/19/2009	\$1,386.00	\$13.86	\$112.27	\$1,512.13
1037	09/27/2009	\$940.50	\$9.41	\$76.18	\$1,026.09
1093	10/03/2009	\$3,186.00	\$31.86	\$258.07	\$3,475.93
1092	11/25/2009	\$4,302.00	\$43.02	\$348.46	\$4,693.48
		\$29,254.50	\$292.56	\$2,369.62	\$31,916.68

02. Enhanced DB Grid: Use [Ctrl + L] to Customize Filters

Customers

Company	City	State	Zip Code	Status	Web Site
Barton and Associates	Stony Brook	NY	11794	<input checked="" type="checkbox"/>	http://www.ba.com
Blue Ridge Technologies, Inc.	Asheville	NC	28801	<input checked="" type="checkbox"/>	http://www.brtinc.com
Bytes & Words	Ogden	UT	84403	<input checked="" type="checkbox"/>	http://www.bw.com
Compdat Con					m
Compumaster					m
Computer Me					com
Computer Mo					m
Computer We					n
Computer We					m
Data Solution					ons.com
Datacrafters					n

Filter Setup

Select the records by the next conditions:

Field	Condition	Value

Define the additional condition:

Field:

Condition:

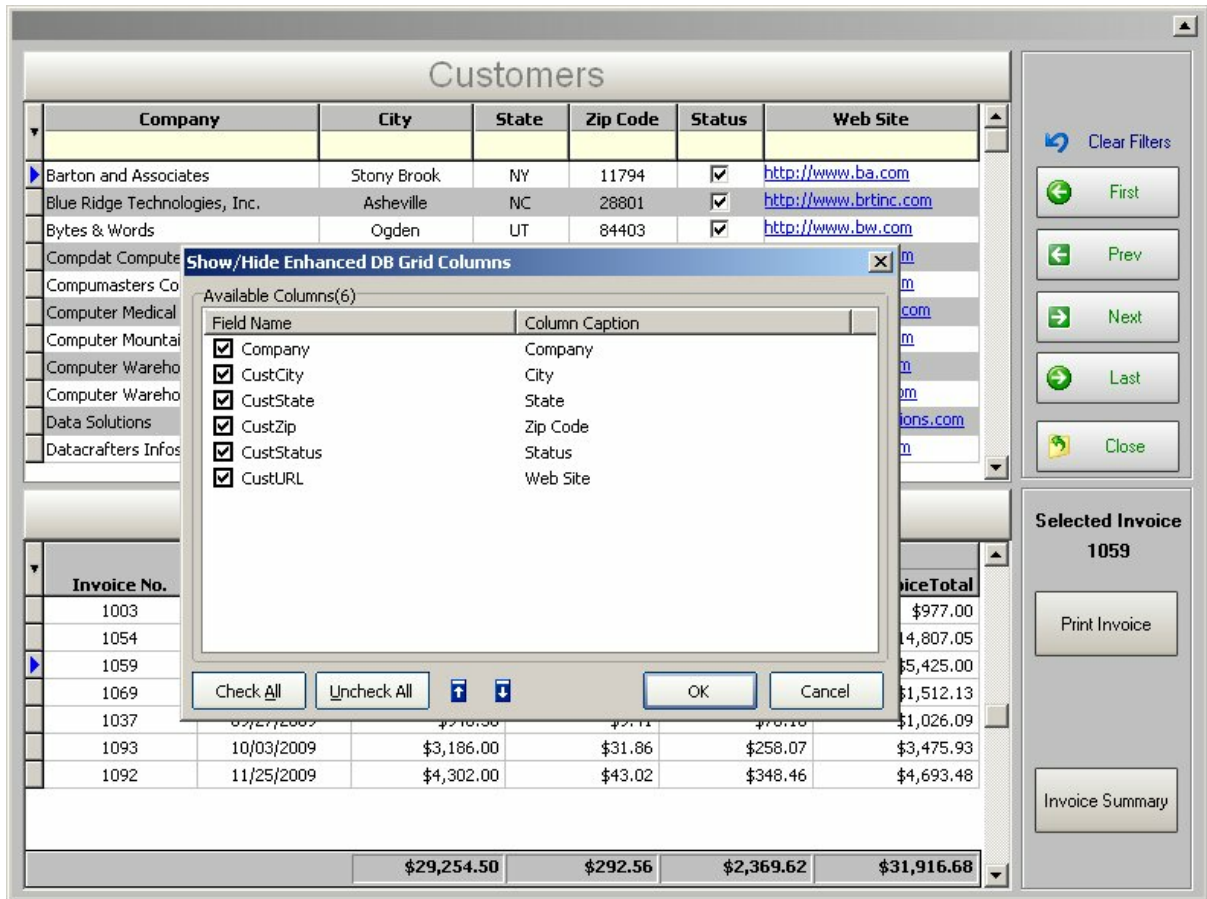
Value:

AND
 OR

Invoice #	Invoice Date	Invoice Total
1003		\$977.00
1054		\$4,807.05
1059		\$5,425.00
1069		\$1,512.13
1037		\$1,026.09
1093		\$3,475.93
1092	11/25/2009	\$4,302.00
		\$43.02
		\$348.46
		\$4,693.48
Total		\$29,254.50
Subtotal		\$292.56
Grand Total		\$2,369.62
Net Total		\$31,916.68

Selected Invoice 1054

03. Enhanced DB Grid: Use [Ctrl + S] to Show/Hide Grid Columns



You may also use the same hot keys to re-arrange columns.

Supported Versions:

- R:BASE eXtreme 9.0 (Builds: 9.0.1.131028 or higher)

8.33 Enhanced Tab Control EEPs

Did you know that now you can use "On Enter EEP" and "On Exit EEP" for the Enhanced Tab Control itself?

Now, you may customize the Enhanced Tab Control to execute your custom code when the focus is switched in or out of the Enhanced Tab Control itself. This is in addition to the "On Tab Change EEP" for individual Tab Pages.

Form Designer > Enhanced Tab Control > Object Property > EEPs:

Enhanced Tab Control Properties:

- On Enter EEP
- On Exit EEP

8.34 Getting the Radio Button Count

Did you know that you can get the count of total number of radio buttons in a RadioGroup using the GETPROPERTY command?

Here's how:

```
GETPROPERTY <RadioGroupCompID> 'BUTTONCOUNT' varname
SET VAR vButtonCount = (INT(.varname))
RETURN
```

Variable varname will return the text value of a total number of Radio Buttons in DB/Variable RadioGroup control.

Variable vButtonCount will return the integer value of button count (varname).

8.35 GROUPINDEX property for Speed Buttons

Did you know that you can group all Speed Buttons to determine how the buttons behave when clicked?

You can use the new PROPERTY command GROUPINDEX parameter for Speed Buttons to allow all speed buttons to work together as a group.

Syntax:

```
PROPERTY <SpeedButtonComponentID> GROUPINDEX nnnn
You will need to set GROUPINDEX to determine how the button behaves when clicked.
```

-- Example:

```
PROPERTY <SpeedButtonOFF> GROUPINDEX 1000
PROPERTY <SpeedButtonON> GROUPINDEX 1000
PROPERTY <SpeedButtonOFF> DOWN 'TRUE'
PROPERTY <SpeedButtonON> DOWN 'FALSE'
```

When GROUPINDEX is 0, the button behaves independently of all other buttons on the form. When the user clicks such a speed button, the button appears pressed (in its clicked state) and then returns to its normal up state when the user releases the mouse button.

When GROUPINDEX is greater than 0, the button remains selected (in its down state) when clicked by the user. When the user clicks a selected button, it returns to the up state, unless Caption is False. Setting the GROUPINDEX property of a single speed button to a value greater than 0 causes the button to behave as a two-state button when Caption is True.

Speed buttons with the same GROUPINDEX property value (other than 0), work together as a group. When the user clicks one of these buttons, it remains selected until the user clicks another speed button belonging to the same group. Speed buttons used in this way can present mutually exclusive choices to the user.

The option DOWN specifies whether the button is selected (down) or unselected (up). Set DOWN to determine whether a speed button is selected. The DOWN property only applies if the GROUPINDEX property of the button is nonzero.

When GROUPINDEX is greater than 0, set DOWN to TRUE to select a button. When the user clicks on a button in the unselected (up) state, the button is selected and DOWN is set to TRUE. When the user clicks on a button in the selected (down) state, if Caption is True, the button becomes unselected and DOWN is set to FALSE.

At design time, specify which button in a group is the initially selected button by setting the Down property of the selected button to TRUE.

Note: When GROUPINDEX is 0, buttons do not remain in the selected state when clicked.

A sample application to demonstrate the use of new GROUPINDEX property is also available at:

2008 SAT Sample Applications: <http://www.rupdates.com/SAT2008/>
Folder: \UsingGroupIndexPropertyForSpeedButtons

Database: GrpIndex
Form: GroupIndexProperty
Command File: UsingGroupIndexPropertyForSpeedButtons.dat

Supported Versions:

- R:BASE 7.6 (Build 7.6.3.30404 or higher) for Windows
- R:BASE C/S:I 7.6 (Build 7.6.3.30404 or higher) for Windows
- R:BASE Turbo (Build 8.0.17.30404 or higher) for Windows

8.36 Listing All Controls with Component IDs

Did you know that you can list all controls with Component IDs, while in a form designer? Here's how:

While in Form Designer, press the [F3] key to launch the Data Dictionary.

Notice the additional tabs...

Now click on the [Form Component IDs] tab

The list will display all Component ID-associated form controls and the control caption (if exists).

While in Form Designer, you may also list "Form Actions", if defined, by clicking on the [Form Actions] tab of data dictionary.

8.37 Making an Enhanced GroupBox Transparent

When using "Enhanced GroupBox" Control on the form, if you would like the Enhanced GroupBox to acquire the background color and/or application theme of your form wallpaper, etc., try the following:

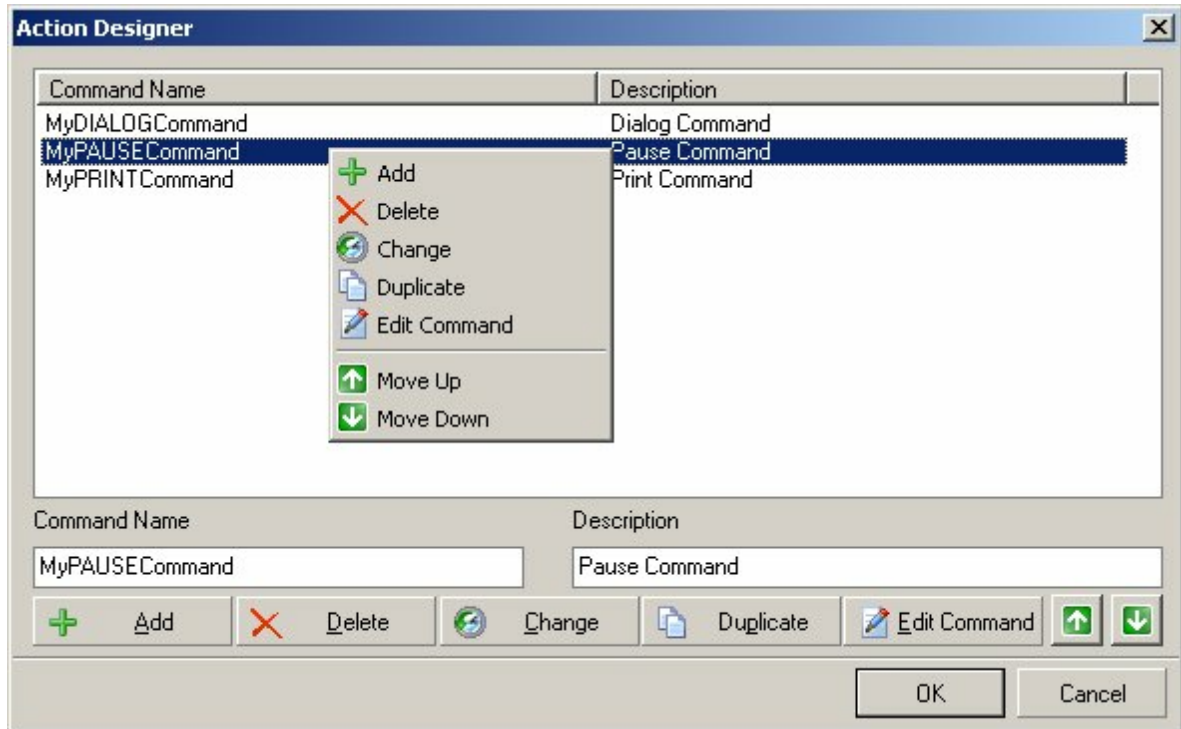
1. Start R:BASE
2. CONNECT dbname
3. Database Explorer > Forms
 - Highlight the form with Enhanced GroupBox
 - Right-Click > choose "Design Form"
4. While in Form Designer:
 - Right-Click on Enhanced GroupBox Object placed on the form
 - Select Object Property
 - [x] Transparent (set to True)
 - Click on "Effects" Tab
 - Select Border: "Group Style" as "Custom"
 - Click on [OK] button to save property.
5. Click on "Run Form" button or use [Ctrl+F9] to Preview
 - Close the form

8.38 Managing Custom Form Actions

Did you know that you can duplicate a Custom Form Action while using the Custom Form "Action Designer"?

While in the Action Designer, now you can duplicate the selected form action by simply clicking on the "Duplicate" button or selecting the "Duplicate" option from the right-click speed menu.

You may also re-arrange the list of defined actions by clicking on the "Move Up" or "Move Down" arrow buttons.



Supported Versions:

- R:BASE 7.6 (Build 7.6.2.31211 or higher) for Windows
- R:BASE (C/S:I) 7.6 (Build 7.6.2.31211 or higher) for Windows
- R:BASE Turbo (Build 7.6.2.31211 or higher) for Windows

8.39 Managing DB Navigator Properties

Did you know that you can manage the DB Navigator Properties in forms using the PROPERTY command?

Here's how:

1. First, this example creates a DB Navigator dynamically, On Demand!

```
-- Example
CREATEOBJECT DBNavigator 'Navigator' 'Panel' 100 90 200 20
PROPERTY Navigator TblName 'Customer'
PROPERTY Navigator INIT 'TRUE'
PROPERTY Navigator ImageStyle 'Razzmatazz'
PROPERTY Navigator FLAT 'TRUE'
```

2. Next, change the DB Navigator Style:

```
-- Syntax
PROPERTY <DBNavigatorComponentID> ImageStyle 'value'
```

```
-- Example 01:
PROPERTY DBNavigator ImageStyle 'OLD'
```

```
-- Example 02:
PROPERTY DBNavigator ImageStyle 'Razzmatazz'
```

3. Then, make any of the default buttons visible/invisible. The default is Visible (TRUE).

```
-- Syntax
PROPERTY <DBNavigatorCompID> <ButtonType> 'value'
```

Button Types:

- FirstVisible
- PriorVisible
- NextVisible
- LastVisible
- InsertVisible
- DeleteVisible
- EditVisible
- PostVisible
- CancelVisible
- RefreshVisible
- CloseWindowVisible

Values:

- TRUE
- FALSE

```
-- Example 01 (To hide insert button):
PROPERTY DBNavigator InsertVisible 'FALSE'
```

```
-- Example 02 (To hide delete button):
PROPERTY DBNavigator DeleteVisible 'FALSE'
```

4. Even change the hint for default buttons:

```
-- Syntax
PROPERTY <DBNavigatorCompID> <ButtonHint> 'hint text'
```

Button Hint:

- FirstHint
- PriorHint
- NextHint
- LastHint
- InsertHint
- DeleteHint
- EditHint
- PostHint
- CancelHint
- RefreshHint
- CloseWindowHint

```
-- Example 01 (To change the hint for first button):
PROPERTY DBNavigator FirstHint 'First Customer'

-- Example 02 (To change the hint for previous button):
PROPERTY DBNavigator PriorHint 'Previous Customer'

-- Example 03 (To change the hint for next button):
PROPERTY DBNavigator NextHint 'Next Customer'

-- Example 04 (To change the hint for last button):
PROPERTY DBNavigator LastHint 'Last Customer'

-- Example 05 (To change the hint for post button):
PROPERTY DBNavigator PostHint 'Save Changes'
```

Versions:

R:BASE 7.6, C/S:I 7.6 and Turbo V-8 for Windows

8.40 Managing Digital Clock Properties

Did you know that you can change the default 24-hour Digital Clock control in forms to display a 12-hour (AM/PM) clock by using the TWELVEHOURCLOCK parameter in the PROPERTY command?

Syntax:

```
PROPERTY <DigitalClockCompID> TWELVEHOURCLOCK 'value'
```

The default is set to 'FALSE'.

```
-- Example 01: To Display 12 Hour (AM/PM) Clock
```

```
PROPERTY DigitalClockCompID TWELVEHOURCLOCK 'TRUE'
```

```
-- Example 02: To Display 24 Hour Clock
```

```
PROPERTY DigitalClockCompID TWELVEHOURCLOCK 'FALSE'
```

In addition, you may also use the following PROPERTY command enable/disable the display of "Seconds" in Digital Clock.

Syntax:

```
PROPERTY <DigitalClockCompID> SHOWSECONDS 'value'
```

The default is set to 'TRUE'

```
-- Example 03: To Disable/Hide the Seconds in Digital Clock
```

```
PROPERTY <DigitalClockCompID> SHOWSECONDS 'FALSE'
```

```
-- Example 04: To Enable/Show the Seconds in Digital Clock
```

```
PROPERTY <DigitalClockCompID> SHOWSECONDS 'TRUE'
```

Supported Versions:

- R:BASE 7.6 (Build 7.6.3.30404 or higher) for Windows
- R:BASE C/S:I 7.6 (Build 7.6.3.30404 or higher) for Windows
- R:BASE Turbo (Build 8.0.17.30404 or higher) for Windows

8.41 Managing RBTI Form Variables

When working on a single form at a time, it is very easy to manage the following RBTI Form Variables:

- RBTI_FORM_FORMNAME (TEXT)
- RBTI_DIRTY_FLAG (INTEGER)
- RBTI_FORM_ALIAS (TEXT)
- RBTI_FORM_MODE (TEXT)
- RBTI_FORM_DIRTYVAR (INTEGER)
- RBTI_FORM_TBLNAME (TEXT)
- RBTI_FORM_COLNAME (TEXT)
- RBTI_FORM_COLVALUE (TEXT)
- RBTI_FORM_DATATYPE (TEXT)
- RBTI_FORM_COMPID (TEXT)

However, if you have a situation where a form is called from within another form, you may have a stack of forms being displayed on top of each other. RBTI Form Variables defined by the last form will of course overwrite the results of the previous form.

So, how do you keep track and manage all resulting variables for each form separately?

To manage this particular situation, all you need to do is define form variables with specific form-related expressions with a unique naming convention.

Here's how:

Assuming you have two forms (FormA and FormB).

1. Define the following expressions for FormA

```
vFormA_FormName TEXT = (.RBTI_FORM_FORMNAME)
vFormA_DirtyFlag INTEGER = (.RBTI_DIRTY_FLAG)
vFormA_Alias TEXT = (.RBTI_FORM_ALIAS)
vFormA_Mode TEXT = (.RBTI_FORM_MODE)
vFormA_DirtyVar INTEGER = (.RBTI_FORM_DIRTYVAR)
vFormA_TblName TEXT = (.RBTI_FORM_TBLNAME)
vFormA_ColName TEXT = (.RBTI_FORM_COLNAME)
vFormA_ColValue TEXT = (.RBTI_FORM_COLVALUE)
vFormA_DataType TEXT = (.RBTI_FORM_DATATYPE)
vFormA_CompID TEXT = (.RBTI_FORM_COMPID)
```

2. Define the following expressions for FormB

```
vFormB_FormName TEXT = (.RBTI_FORM_FORMNAME)
vFormB_DirtyFlag INTEGER = (.RBTI_DIRTY_FLAG)
vFormB_Alias TEXT = (.RBTI_FORM_ALIAS)
vFormB_Mode TEXT = (.RBTI_FORM_MODE)
vFormB_DirtyVar INTEGER = (.RBTI_FORM_DIRTYVAR)
vFormB_TblName TEXT = (.RBTI_FORM_TBLNAME)
vFormB_ColName TEXT = (.RBTI_FORM_COLNAME)
vFormB_ColValue TEXT = (.RBTI_FORM_COLVALUE)
vFormB_DataType TEXT = (.RBTI_FORM_DATATYPE)
vFormB_CompID TEXT = (.RBTI_FORM_COMPID)
```

Using this technique, all variables will be unique to each individual form, and you can easily track the status of each variable when working in a multi-form application.

8.42 Managing Table Properties on Demand

Did you know that you can manage table properties on demand while using the form in ENTER, EDIT or BROWSE mode?

Imagine a situation where you have one multi-table form, and you wish to manage all related controls for a specific table, based on certain conditions, such as network user.

Conditionally, depending on the logged in user, you may enable or disable all controls related to any table without knowing the individual Component IDs.

Using the "PROPERTY TABLE tablename DISABLECONTROLS" or "PROPERTY TABLE tablename ENABLECONTROLS" commands, you may manage the status of any table as deemed necessary.

Use the following PROPERTY commands as "On After Start EEP":

```
-- To disable all controls related to given table
PROPERTY TABLE tablename DISABLECONTROLS
RETURN
```

```
-- To enable all controls related to given table
PROPERTY TABLE tablename ENABLECONTROLS
RETURN
```

Here's a comprehensive list of all supported table properties:

- ENABLE_DELETE_ROWS
- ENABLE_ADD_NEW_ROWS
- DISABLE_DELETE_ROWS
- DISABLE_ADD_NEW_ROWS
- UPDATE
- CLOSE
- DISABLECONTROLS
- ENABLECONTROLS
- OPEN
- EDIT
- NEXT
- PRIOR
- LAST
- FIRST
- INSERT
- APPEND
- DELETE
- POST
- CANCEL
- REFRESH
- JUMPTO
- JUMP
- SEARCH

8.43 Managing Windows Media Player Properties

Did you know that now you can manage every property of the Windows Media Player ActiveX control when implemented in R:BASE forms?

Here is a list of new supported PROPERTY command parameters to manage the Windows Media Player ActiveX control:

Syntax:

```
PROPERTY <WMPActiveXComponentID> 'WMPProperty' 'value'
```

Example 01 (Load File):

```
PROPERTY MediaPlayer 'URL' 'D:\Videos\Stockholm Syndrome.avi'
```

Example 02 (Play):

```
PROPERTY MediaPlayer 'CALL_PROCEDURE Controls.Play' ''
```

Example 03 (Pause):

```
PROPERTY MediaPlayer 'CALL_PROCEDURE Controls.Pause' ''
```

Example 04 (Next):

```
PROPERTY MediaPlayer 'CALL_PROCEDURE Controls.Next' ''
```

Example 05 (Fast Forward):

```
PROPERTY MediaPlayer 'CALL_PROCEDURE Controls.FastForward' ''
```

Example 06 (Fast Previous):

```
PROPERTY MediaPlayer 'CALL_PROCEDURE Controls.Previous' ''
```

Example 07 (Fast Reverse):

```
PROPERTY MediaPlayer 'CALL_PROCEDURE Controls.Reverse' ''
```

Example 08 (Stop):

```
PROPERTY MediaPlayer 'CALL_PROCEDURE Controls.Stop' ''
```

Example 09 (User Interface):

```
PROPERTY MediaPlayer uiMode 'NONE'  
PROPERTY MediaPlayer uiMode 'MINI'  
PROPERTY MediaPlayer uiMode 'FULL'
```

Example 10 (Stretch to Fit TRUE/FALSE):

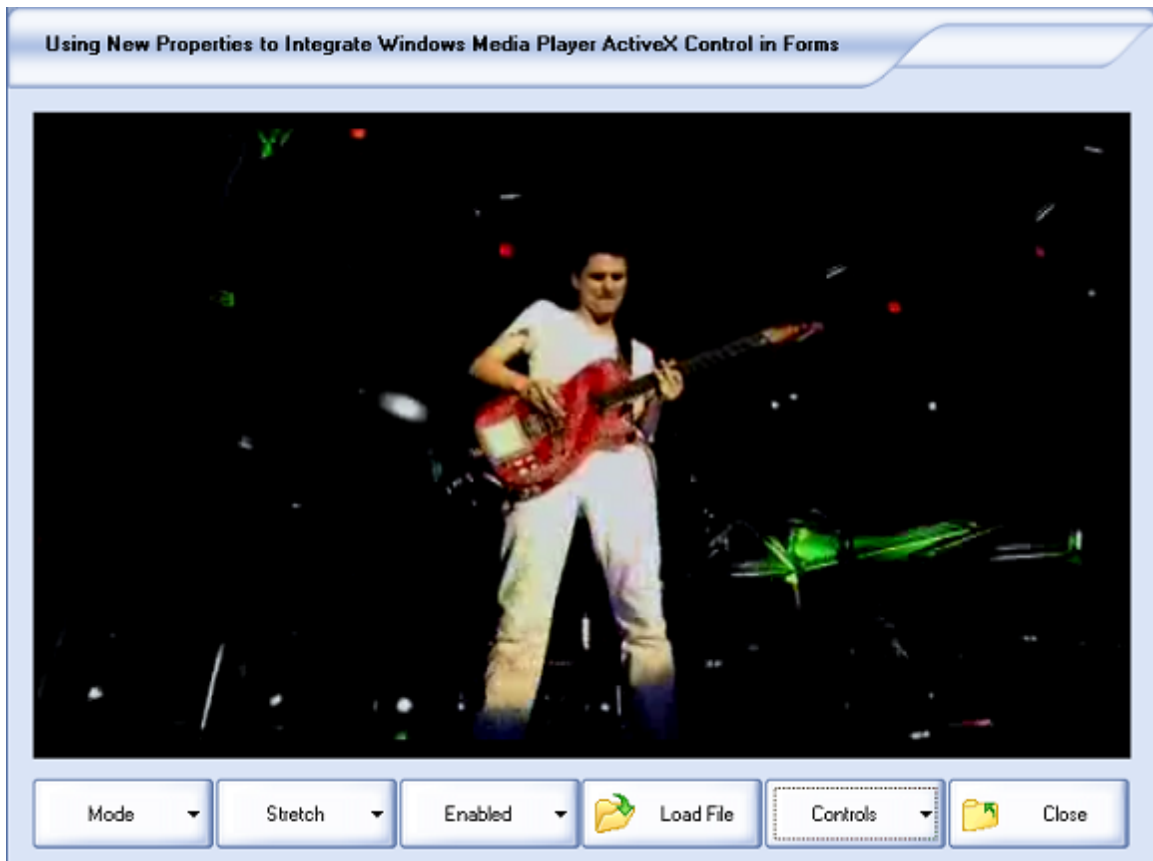
```
PROPERTY MediaPlayer STRETCHTOFIT 'TRUE'  
PROPERTY MediaPlayer STRETCHTOFIT 'FALSE'
```

Example 11 (Enabled TRUE/FALSE):

```
PROPERTY MediaPlayer ENABLED 'TRUE'  
PROPERTY MediaPlayer ENABLED 'FALSE'
```

Example 12 (Currently Playing File Name)

```
GETPROPERTY MediaPlayer URL vURLName
```



Supported Versions:

- R:BASE 7.6 for Windows (Build:7.6.5.31125 or higher)
- R:BASE C/S:I 7.6 for Windows (Build:7.6.5.31125 or higher)
- R:BASE Turbo V-8 for Windows (Build:8.0.19.31125 or higher)
- R:BASE eXtreme 9.0 for Windows (Build:9.0.1.31125 or higher)

8.44 Placing Hidden Buttons

A hidden button can be added to your forms to run code, or even allow you as the developer access the Database Explorer from a application Main Menu.

Reference: Running R:BASE Your Way! (Part 2)

1. Start R:BASE

Switch the default directory to: C:\RBTI\RBG(*version number*)\Samples\Database\RRBYW2

2. Database Explorer > Commands > RRBYW2.DAT > Run

(to start RRBYW2 application)

OR

At the R> Prompt, type: RUN RRBYW2.DAT

From the Main Menu, if you click on the [Exit] the application will be closed (a normal process and works exactly as designed).

But, if you would like to get back on the Database Explorer click on the "Lower Left" Invisible "Speed Button" on the form. You'll have to use mouse around to see the invisible button.

Now click on that speed button. You'll be back at the Database Explorer.

That is another way for application designer or developer to get back on the Database Explorer.

End-User will NOT be able to see the Speed Button with [Flat] properties and no [Caption].

8.45 Selecting All Items in ListBox/ListViewControls

Did you know that you can use the [Ctrl+A] or [Shift+F6] keys to toggle between selecting all items and unselecting all items in Variable Lookup ListBox or Variable Lookup ListView controls?

Here's how to "Select All Items" in Variable Lookup ListBox and Variable Lookup ListView controls.

1. Start R:BASE.
2. Connect to your database.
3. Open a form with a Variable Lookup ListBox or Variable Lookup ListView Control, in the Form Designer.
4. Make sure that associated variable data type is capable of accepting multi-select List Source Key Field items.
5. Make sure to enable the "MultiSelect" option for the Variable Lookup ListBox or ListView Control.
6. Save the form.
7. Run the form.
8. Use [Ctrl+A] or [Shift+F6] to toggle between Select and Un-Select All items.
9. Use [Ctrl+Click] to select multiple items.
10. Use [Shift+Click] to select an highlighted group of items.

You may also use the following PROPERTY commands to dynamically select all items, if you wish:

```
-- For Variable Lookup ListBox Control
PROPERTY <VarLookupListBoxCompID> MULTISELECT 'TRUE '
PROPERTY <VarLookupListBoxCompID> SELECT_ALL 'TRUE '
RETURN

-- For Variable Lookup ListView Control
PROPERTY <VarLookupListViewCompID> MULTISELECT 'TRUE '
PROPERTY <VarLookupListViewCompID> SELECT_ALL 'TRUE '
RETURN
```

Support Versions

- R:BASE 7.6 for Windows (Build: 7.6.3.30516 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.3.305016 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.17.30516 or higher)

8.46 Setting the Background Color for Focused Controls

When you design a cool form with so many DB/Variable Edit controls, sometimes the end user simply cannot figure out where the tiny mouse cursor is located. In the past we have found a workaround to change the background color properties for the "On Enter EEP" for each control.

Did you know that you can use the default "Form Settings" for "Edit Objects" to achieve your goal without customizing each and every edit control on the form?

Here's how:

1. Start R:BASE 7.6 or Turbo V-8 for Windows
2. From the Database Explorer > Main Menu > Settings > Form Designer
3. Within the Default Form Settings > Edit Objects ...

[] Background Color When Focused

This is where you'll have to define the color, including the option to define your own custom color, if you wish.

Using this custom setting will provide the option for any individual to use their favorite color.

You may also customize this setting for individual DB/Variable Edit/Memo controls as follows:

Form Designer > Object Properties > Effects > [] Background Color When Focused

Programmatically, you may use the PROPERTY command as "On After Start EEP" to dynamically enforce/change the background color for any DB/Variable Edit/Memo Controls.

Example:

```
PROPERTY <ComponentID> HighlightFocus 'TRUE'
PROPERTY <ComponentID> HighlightFocusColor 'YELLOW'
RETURN
```

8.47 Suppressing Script Errors in WEB Browser Controls

When implementing Web Browser, DB Web Browser, or Variable Web Browser controls in forms, depending on the server URLs, users may encounter script errors or warning messages which force them to click on an "OK" button to continue and so on. This may create an inconvenience for your R:BASE custom applications.

Now, you can suppress those warning or script error messages by either checking the additional property option to "Suppress Script Errors" for Web Browser, DB Web Browser or Variable Web Browser controls or use the following PROPERTY command:

```
PROPERTY WebBrowserComponentID SuppressScriptErrors 'TRUE'
RETURN
```

8.48 The TreeView Menu in RRBYW3

Did you know that you can design a fully menu-driven application using TreeView Control and you can either display (VISIBLE TRUE) or hide (VISIBLE FALSE) the entire TreeView control using the PROPERTY command?

Running R:BASE Your Way! (Part 3) demonstrates the use of such menu driven application.

Based on the user login, you can control the display of assigned Component ID as demonstrated in the sample database and application.

Startup File: RRBYW3.DAT
Associated Form: TreeViewMenu
Associated EEP: TreeViewMenuAccess

```
-- TreeViewMenuAccess.EEP
IF vLogin <> 'RRBYW3' OR vLogin IS NULL THEN
PROPERTY MM_TreeView_AllOptions VISIBLE FALSE
PROPERTY MM_Treeview_ReportsLabels VISIBLE TRUE
ELSE
PROPERTY MM_TreeView_AllOptions VISIBLE TRUE
PROPERTY MM_Treeview_ReportsLabels VISIBLE FALSE
ENDIF
RETURN
```

Here's how:

Take a look at the TreeViewMenu form bundled with Running R:BASE Your Way! (Part 3). There are two TreeView controls placed on the form.

The First TreeView control with seven nodes, such as Customers, Contacts, Employees, Products, Sales, Reports and Labels.

The Second TreeView control with only two nodes, i.e., Reports and Labels.

First TreeView Control with all options is assigned a Component ID "MM_TreeView_AllOptions".

Second TreeView control with only two nodes is assigned a Component ID "MM_TreeView_ReportsLabels".

Second Treeview control is placed on the top of first TreeView control and is "Send to Back" with the "Align" property of "none". It will always be in the back.

First Treeview control has the "Align" property of "Left" and will ALWAYS be on the top.

Before stating the form, TreeViewMenuLogin.EEP is used as "On Before Start EEP".

After the form starts, TreeViewMenuAccess.EEP is used as "On After Start EEP".

Based on the user login the property of TreeView control with Component ID is changed accordingly.

```
IF vLogin <> 'RRBYW3' OR vLogin IS NULL THEN
  PROPERTY MM_TreeView_AllOptions VISIBLE FALSE
  PROPERTY MM_Treeview_ReportsLabels VISIBLE TRUE
ELSE
  PROPERTY MM_TreeView_AllOptions VISIBLE TRUE
  PROPERTY MM_Treeview_ReportsLabels VISIBLE FALSE
ENDIF
```

That's all there is to it!

Caution: To understand the entire process make sure to play with a backup copy of the form.

8.49 Understanding Tab Order

Tab Order Priority:

01. Form itself
02. Panel(s) and Controls within that panel
03. Individual Controls

When you place any control(s) in a form designer which posses the property of being "Containers" itself, such as Enhanced Panel, Enhanced Group Box, Scrolling Region and Tab Control, then the tab order of any placed controls within is related to that container itself.

It is also important to know the order in which the Panel(s) were defined.

So, if you would like to re-order the tab within each container (Enhanced GroupBox in your case), first you need to select that container and then:

Layout > Change Tab Order will display the objects placed on that container, such as Enhanced GroupBox.

Also, the form designer remembers the order in which you placed the container and the contents within that container.

BUT ... using the PROPERTY command, you CAN change the tab order as well as the focus.

Typical Scenario:

Let's say you have three "Enhanced GroupBox" controls on the form and when the form starts, you would like the focus to be on the third (3rd) control (DB Edit) on the Middle (2nd) Enhanced GroupBox, irregardless of the sequence they were placed on the form, etc.

In that case:

1. Assign the Component ID as "Panel2" for the middle Enhanced GroupBox.
2. Assign the Component ID as "Field3" on the third control (DB Edit) placed on the middle (2nd) Enhanced GroupBox.
3. Create an EEP, for example, TabOrder.EEP with the following commands:

```
PROPERTY Panel2 TABORDER 0
PROPERTY Field3 SET_FOCUS 0
RETURN
```

4. Use TabOrder.EEP as "On After Start EEP"

Form Properties > Miscellaneous > "On After Start EEP"

5. Save the form.

Now when you run that form, the focus will be on the third control (DB Edit) placed on the middle (2nd) Enhanced GroupBox.

That's all there is to it!

To understand that scenario, take a good look at the form "CallNotesEdit" included in Running R:BASE Your Way! (Part 3).

```
Database: RRBYW3
Form: CallNotesEdit
Associated Command File: RRBYW3.RMD
Associated EEPs: CallNotesEdit_PanelOrder.EEP
```

8.50 Understanding the "Space Evenly" Option for RadioGroup Controls

Within the Form Designer, choose either the DB RadioGroup or the Variable RadioGroup. View the Properties for the control and select the "Effects" tab.

When "Space Evenly" option is set to True (checked), the columns are positioned so that each "column" of controls takes up the same amount of space. This specific option is very useful when "Columns" are set to more than 1.

Example:

Properties > Columns: 2

To specify the number of pixels used between "rows" (when Columns: is set to 1), use the PROPERTY command to specify the number of pixels used between rows of Radio Buttons in a Radio Group Control.

Example:

```
PROPERTY <Component ID> VERTICALSPACING xxx
```

Where xxx is the number of pixels used between rows of Radio Buttons in a Radio Group Control.

8.51 Using a Date Picker (Calendar) in a DB Grid

Did you know that you can use a Date Picker (Calendar) in a DB Grid?

If you have a DB Grid Column associated with DATE, now you can use the Calendar to Enter or Update the field in DB Grid.

Here's how:

1. Form Designer > DB Grid Control > Properties > Effects
2. [x] Check the option for "Show Picker for DATE Fields" and select the "OK" button
3. Save and close the Form Designer
4. Database Explorer > Select Form > Run Form

Notice the drop-down arrow on DATE field when the date column is focused.

Clicking on the drop-down arrow will bring up a calendar.

8.52 Using a Default State for DB/Variable CheckBoxes

Did you know that you can set the "Default State" for DB and Variable Check Boxes?

- Form Designer > DB CheckBox > Properties ...

Default State: [] Unchecked [] Checked

- Form Designer > Variable CheckBox > Properties ...

Default State: [] Unchecked [] Checked

8.53 Using Images in the DB TreeView Control

Did you know that now you can use images in DB TreeView control?

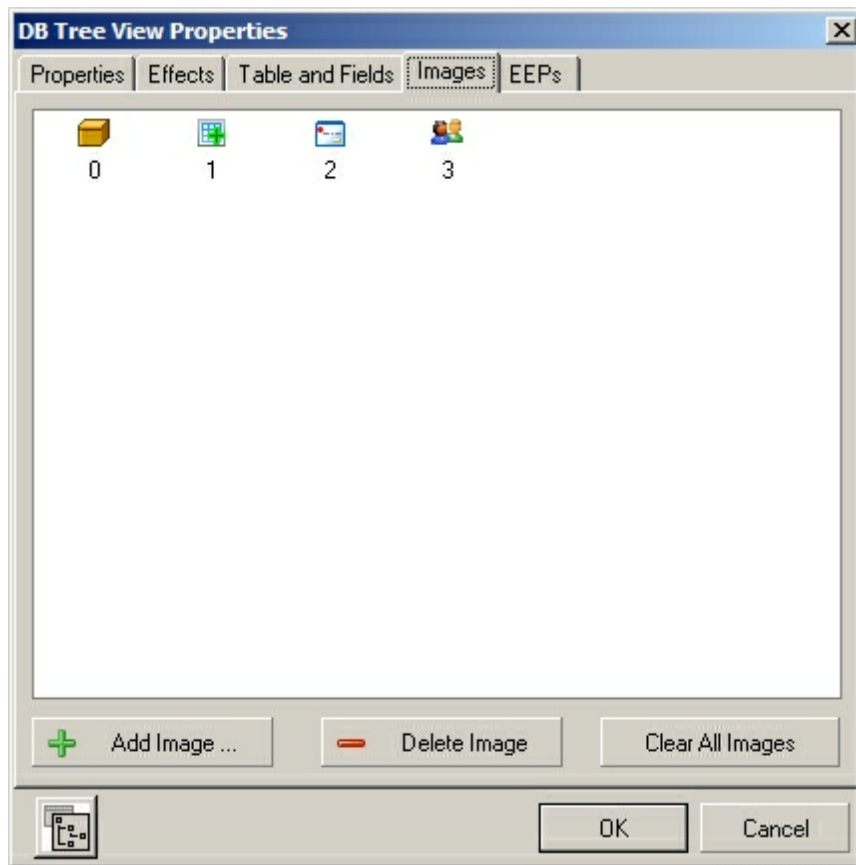
Here's a visual presentation of using images in a DB TreeView control:

The image shows a dialog box titled "DB Tree View Properties" with a close button (X) in the top right corner. The dialog has five tabs: "Properties", "Effects", "Table and Fields" (which is selected and has a dotted border), "Images", and "EEP's". Under the "Table and Fields" tab, there is a section labeled "Table and Fields" containing five rows of dropdown menus:

- Table Name: Departments
- ID Field: DepartmentID
- Parent Field: OwnerDept
- Text Field: Description
- Image Field: ImageIndex

At the bottom of the dialog, there is a small icon on the left and two buttons, "OK" and "Cancel", on the right.

DB TreeView Properties A



DB TreeView Properties B

8.54 Using Images in Variable/DB ListView Controls

Did you know that now you can use your favorite images (16x16) in a DB Lookup ListView or Variable Lookup ListView control?

Here's a visual presentation of using images in a DB ListView control:

Typical DB Lookup ListView Control

Typical DB Lookup ListView Control

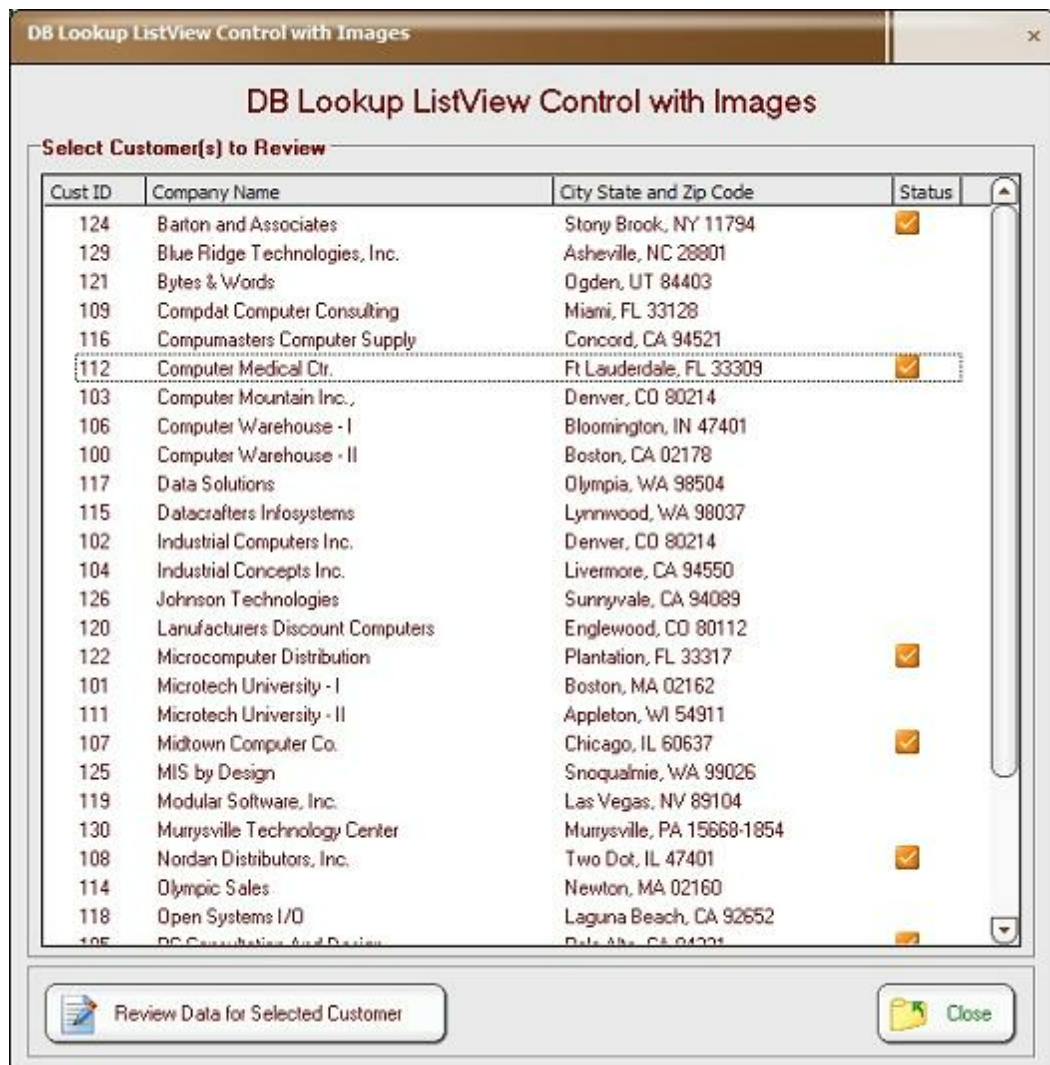
Select Customer(s) to Review

Cust ID	Company Name	City State and Zip Code	Status
124	Barton and Associates	Stony Brook, NY 11794	A
129	Blue Ridge Technologies, Inc.	Asheville, NC 28801	I
121	Bytes & Words	Ogden, UT 84403	I
109	Compdat Computer Consulting	Miami, FL 33128	I
116	Compumasters Computer Supply	Concord, CA 94521	I
112	Computer Medical Ctr.	Ft Lauderdale, FL 33309	A
103	Computer Mountain Inc.,	Denver, CO 80214	I
106	Computer Warehouse - I	Bloomington, IN 47401	I
100	Computer Warehouse - II	Boston, CA 02178	I
117	Data Solutions	Olympia, WA 98504	I
115	Datacrafters Infosystems	Lynnwood, WA 98037	I
102	Industrial Computers Inc.	Denver, CO 80214	I
104	Industrial Concepts Inc.	Livermore, CA 94550	I
126	Johnson Technologies	Sunnyvale, CA 94089	I
120	Lanufacturers Discount Computers	Englewood, CO 80112	I
122	Microcomputer Distribution	Plantation, FL 33317	A
101	Microtech University - I	Boston, MA 02162	I
111	Microtech University - II	Appleton, WI 54911	I
107	Midtown Computer Co.	Chicago, IL 60637	A
125	MIS by Design	Snoqualmie, WA 99026	I
119	Modular Software, Inc.	Las Vegas, NV 89104	I
130	Murrysville Technology Center	Murrysville, PA 15668-1854	I
108	Nordan Distributors, Inc.	Two Dot, IL 47401	A
114	Olympic Sales	Newton, MA 02160	I
118	Open Systems I/O	Laguna Beach, CA 92652	I
105	PC Consultation And Design	Palo Alto, CA 94321	A
127	RAM Data Systems, Inc.	Murrysville, PA 15668-1854	I
128	Renaissance Computer Company	Asheville, NC 28801	A
110	Softech Database Design	Mercer Island, WA 98040	I
113	State University	Bedford, MA 01730	A
123	The Data Shop	Austin, TX 78701	I

Review Data for Selected Customer

Close

Typical DB Lookup ListView



Using Images in DB Lookup ListView

The screenshot shows the 'DB Lookup ListView Properties' dialog box with the 'Columns' tab selected. The 'Columns' list contains four items: 'Column 1 (Cust ID)', 'Column 2 (Company Name)', 'Column 3 (City State and Zip Code)', and 'Column 4 (Status)'. 'Column 4 (Status)' is selected. Below the list are 'Up' and 'Down' arrow buttons. The 'Column Properties' section includes: 'Caption' (Status), 'Alignment' (Center), 'Minimum Width' (40), 'Maximum Width' (40), 'Width' (40), an 'Autosize' checkbox (unchecked), and 'Image Field' (ImageIndex). At the bottom are 'New Item' and 'Delete' buttons, and 'OK' and 'Cancel' buttons.

DB Lookup ListView Properties

Properties | Effects | Lookup Settings | **Columns** | Images | EEPs

Columns:

- Column 1 (Cust ID)
- Column 2 (Company Name)
- Column 3 (City State and Zip Code)
- Column 4 (Status)**

Column Properties:

Caption: Status

Alignment: Center

Minimum Width: 40 Maximum Width: 40

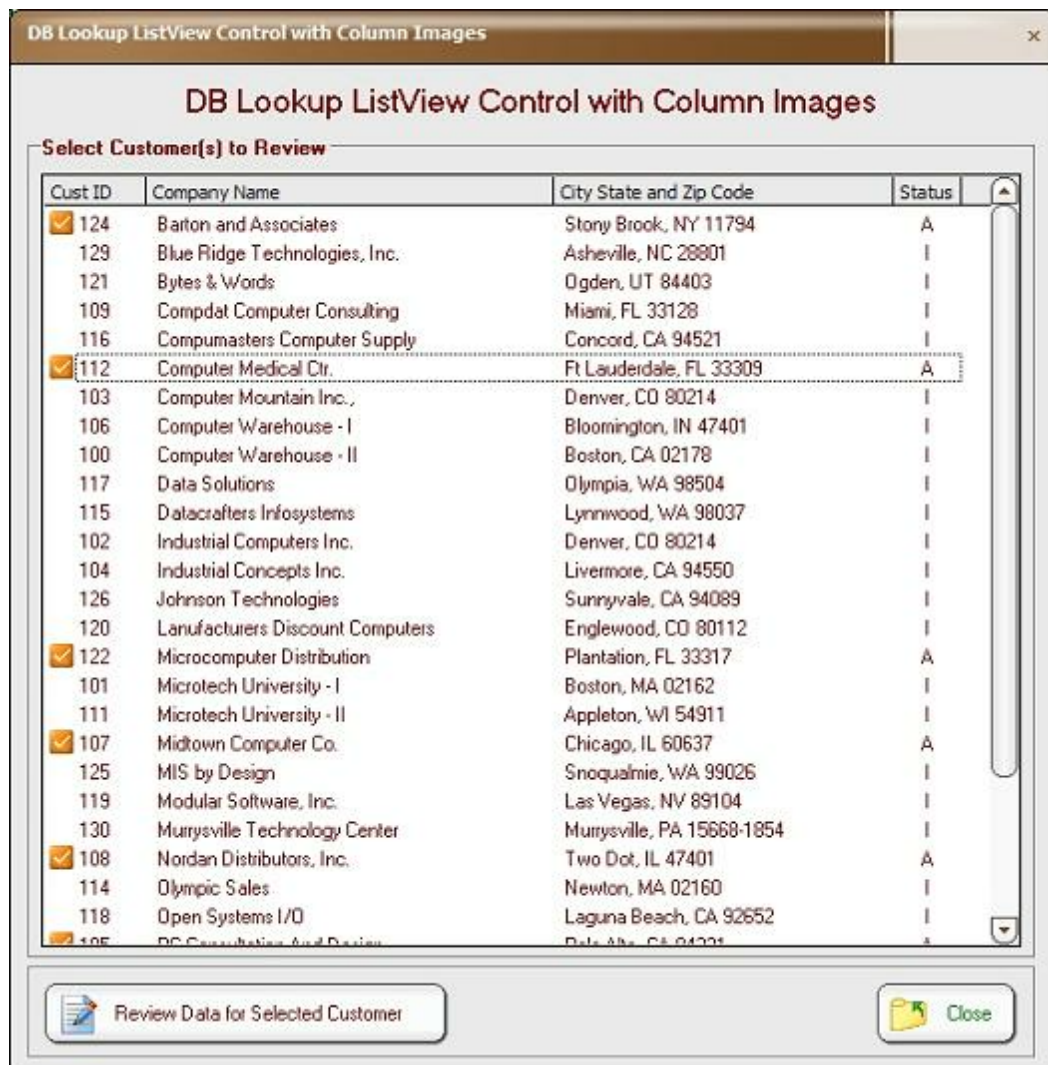
Width: 40 Autosize

Image Field: ImageIndex

+ New Item - Delete

OK Cancel

DB Lookup ListView Properties



DB Lookup ListView with Column Images

DB Lookup ListView Properties

8.55 Using the Mouse Over Property for Images

Did you know that in addition to "On Click" and "Right Click" EEPs, now you also have the following additional properties for Image, DB Image and Variables Image Controls?

- On Mouse Enter
- On Mouse Over
- On Mouse Leave

On Mouse Enter:

Use this option to run EEP automatically when the mouse cursor moves into the control's area.

On Mouse Over:

Use this option to run EEP when the mouse moves across the control. Please keep in mind that as the mouse cursor moves across a control, the EEP is called repeatedly. Each time it is called, it is with the new coordinates that reflect the continuous path of the mouse cursor across the screen real estate covered by the control's visual representation.

On Mouse Leave:

Use this option to run EEP automatically when the mouse cursor moves out of the control's area.

8.56 Using the New Display Format in Forms

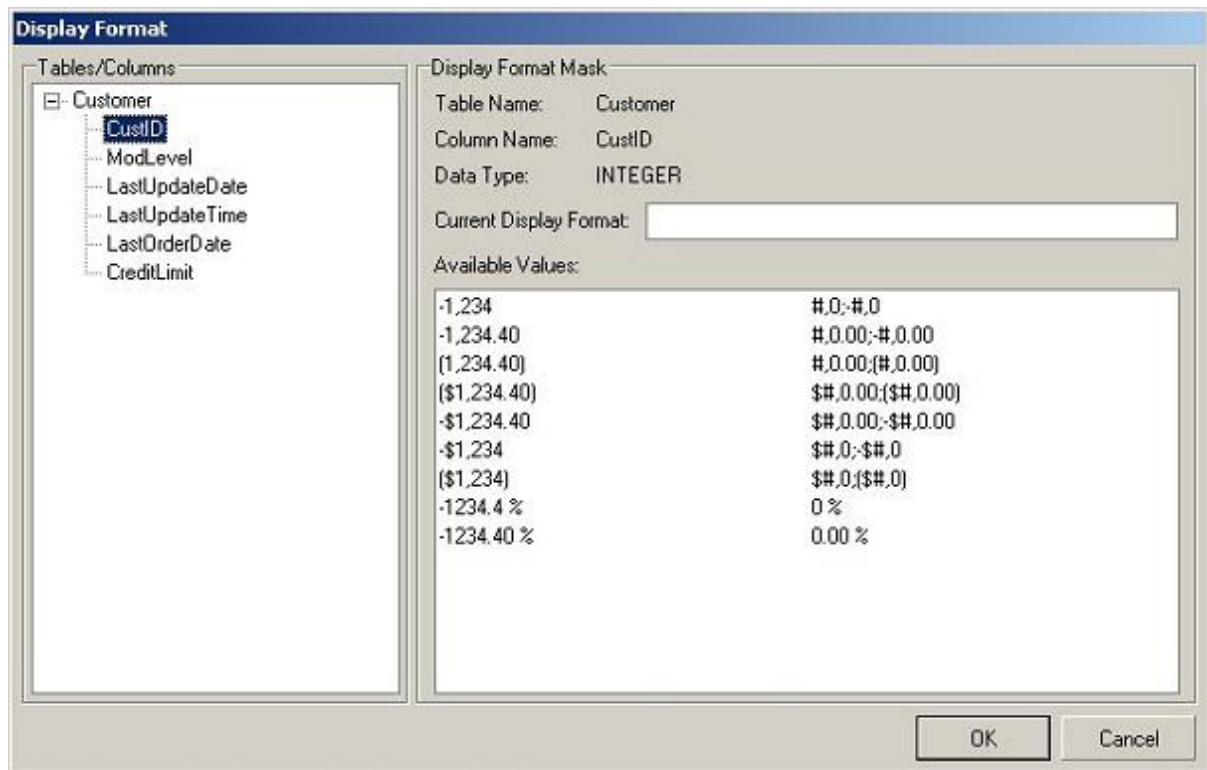
Generally, all DB and Variable controls in Form Designer include a "Format Mask" property option to customize the format for data entry and data update purposes. This Format Mask property cannot be used for customizing the "display format" of database or variable edit controls.

Did you know that you can use the newly implemented enhancement to customize the "Display Format" for DB and Variable controls in form designer (A nice end-of-the-year goody)?

Here's how:

1. Open any form in the Form Designer
2. From the Menu Bar, choose "Tables" > "Display Format ..."

Notice the dynamic Tables/Columns TreeView with all associated table(s) and the list of customizable column(s).



3. Click on the desired column that needs the custom display format.
4. Depending on the data type of the selected column, a list of appropriate display formats is generated.
5. Select the most suitable format from the list. You may further customize (overwrite) the selected format is necessary.
6. Click on [OK] button to save the Display Format.

Using this enhanced feature, now you can have your cake and eat it too!

Supported Versions:

- R:BASE 7.6 (Build 7.6.2.31221 or higher) for Windows
- R:BASE (C/S:I) 7.6 (Build 7.6.2.31221 or higher) for Windows
- R:BASE Turbo (Build 7.6.2.31221 or higher) for Windows

8.57 Using the "On Right-Click" EEP on ListBox/ListViewControls

Did you know that you can use the "Right-Click" mouse button on Variable Lookup ListBox or Variable Lookup ListView controls to execute any code, defined within a "On Right-Click" EEP?

Here's how:

For the Variable Lookup ListBox:

1. Within the Form Designer, select an existing or add a new Variable Lookup ListBox
2. Within the Object Properties, select the "EEPs" tab.
3. Notice the additional option for "On Right Click"
4. You may also access your Custom EEP by simply right-clicking on the object and selecting the "Custom EEP" > "On Right Click" menu option.

For the Variable Lookup ListView:

1. Within the Form Designer, select an existing or add a new Variable Lookup ListView
2. Within the Object Properties, select the "EEPs" tab.
3. Notice the additional option for "On Right Click"
4. You may also access your Custom EEP by simply right-clicking on the object and selecting the "Custom EEP" > "On Right Click" menu option.

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.3.30516 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.3.30516 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.17.30516 or higher)

8.58 Using the SCALEBY Property

Did you know that you can scale the form and all placed control dynamically to fit the screens with higher resolution?

You may use the `PROPERTY RBASE_FORM SCALEBY 'nnnn'` command to automatically scale form and all related controls to specified screen pixel width.

SCALEBY property modifies the Height and Width properties of the form and all controls placed on it, but it does not change the Top and Left properties; therefore, the size of the controls changes, but not the coordinates of the top-left corners of the controls. Thus, it preserves the position of all controls on the form.

If you have developed a form that is 800x600 for the majority of users having a monitor with 800x600 screen resolution to fit the form on the entire available screen, but a few users of your application have a higher resolution (1024x768) and if you wish your 800x600 form to fill the entire screen of a monitor with a resolution of 1024x768, you'll need to use the `RBASE_FORM SCALEBY` property as follows:

```
PROPERTY RBASE_FORM SCALEBY '800'  
RETURN
```

This will scale the original form designed as 800x600 to fill the entire screen even if the screen resolution is higher than 800x600, such as, 1400x1050, 1280x800 or 1024x768.

Notes:

- Use the SCALEBY property as embedded custom EEP in "On After Start EEP" in form
- To take advantage of this feature, make sure that you use the scaled true type fonts for all controls on that form

A sample form to demonstrate the use of SCALEBY property in forms is also available at:

<http://www.razzak.com/sampleapplications>

8.59 Using the File ListBox Control

Did you know that now you can use "On Click EEP" for the File ListBox Control?

Form Designer > File System Controls > File ListBox > Properties

Using this feature, you can capture the entire file name as a "Long File Name" or "Short File Name" into variable(s) by simply clicking on any file name listed in the File ListBox.

Example:

1. Place a File ListBox Control on a form.
2. Assign a Component ID for File ListBox Control, for example, "cFileListBoxControl".
3. Place two Variable Edit or Variable Label Controls associated with "vLongFileName" and "vShortFileName" to monitor the captured results.
4. Use the following code as File ListBox Control "On Click EEP":

```
-- Begin
-- File ListBox Control (On Click Custom EEP)
CLEAR VAR vLongFileName, vShortFileName
SET VAR vLongFileName TEXT = NULL
SET VAR vShortFileName TEXT = NULL
GETPROPERTY cFileListBoxControl LONGFILENAME vLongFileName
GETPROPERTY cFileListBoxControl SHORTFILENAME vShortFileName
RECALC VARIABLES
RETURN
-- End
```

5. Save and close the form.
6. At the R> Prompt or using the Database Explorer:

```
EDIT USING formname
```

Click on any file listed in the list box and notice the resulting captured values as Long/Short file names.

8.60 Using the Directory Tree Control

Did you know that now you can use an "On Click EEP" for the Directory Tree Control?

Form Designer > File System Controls > Directory Tree > Properties

Using this feature, now you can capture the value into a variable by simply clicking on any node of the tree.

Example:

1. Place a Directory Tree Control on a form.
2. Assign a Component ID for Directory Tree Control, for example, "cDirTreeControl".
3. Place a Variable Edit or Variable Label Control on the form to monitor the captured results.
4. Use the following code within the Directory Tree Control "On Click EEP":

```
-- Begin
-- Directory Tree Control (On Click Custom EEP)
CLEAR VAR vValue
SET VAR vValue TEXT = NULL
```

```

GETPROPERTY cDirTreeControl DIRECTORY vValue
RECALC VARIABLES
RETURN
-- End

```

5. Save and close the form.
6. At the R> Prompt or using the Database Explorer:

```
EDIT USING formname
```

Click on any level of the Directory Tree Control and notice the resulting captured value.

8.61 Using the Multi-Select Option for the ListView Control

Did you know that you can use a multi-select option for the Variable Lookup ListView control in forms?

Here's how:

Form Designer > Variable Controls > Variable Look-up ListView > Object Property > Effects > MultiSelect

Notes:

1. To use the multi-select option, make sure that the variable data type is pre-defined as TEXT, NOTE or VARCHAR. Choosing which of these to use depends on the anticipated cumulative value for the variable. You must choose the data type wisely as the TEXT variable length is limited to 1500 characters, the NOTE variable length is limited to 4092 characters, and the VARCHAR variable length is limited to 256MB.
2. Use single-click to select one item.
 - Use [Ctrl + Click] to add item(s) to the list
 - Use [Ctrl + Click] to un-select the already selected item
 - Use [Ctrl + A] to select ALL items
 - Use [Ctrl + A] to un-select ALL items
 - Use [Shift + F6] key to select ALL items
 - Use [Shift + F6] key to un-select ALL items
3. All key values will be separated by a comma.

An application to demonstrate the practical use of this new feature is included on RBG76 Super Advanced Training CD.

```

Folder: \76_MultiSelectListView
Database: MSListVw
Related Forms:
• ListViewAsCHOOSE
• MSListView
• MSListViewMainMenu
• MSListView_ShowVar
• VarLookupListView
Command File: MultiSelectListView.DAT

```

8.62 Using the Object List Toolbar

While in Form Designer, the Object List is very useful to displays the list of **all** object(s) placed on the form. You may view all objects by selecting [All Controls] from the Object List, or view all objects by selecting individual category, such as:

- Standard Controls

- Database Controls
- Variable Controls
- Additional Controls
- Internet Controls
- File System Controls
- Legacy Controls
- ActiveX Controls

By selecting the object and clicking on [Object Property] button, you may customize the property of selected object.

Did you know that you can also dock or float the Object List? Here's how:

Form Designer > Layout > Toolbars > Object List

Notice the floating Object List.

You may resize the height and width of this control and then dock it or float it, as you wish!

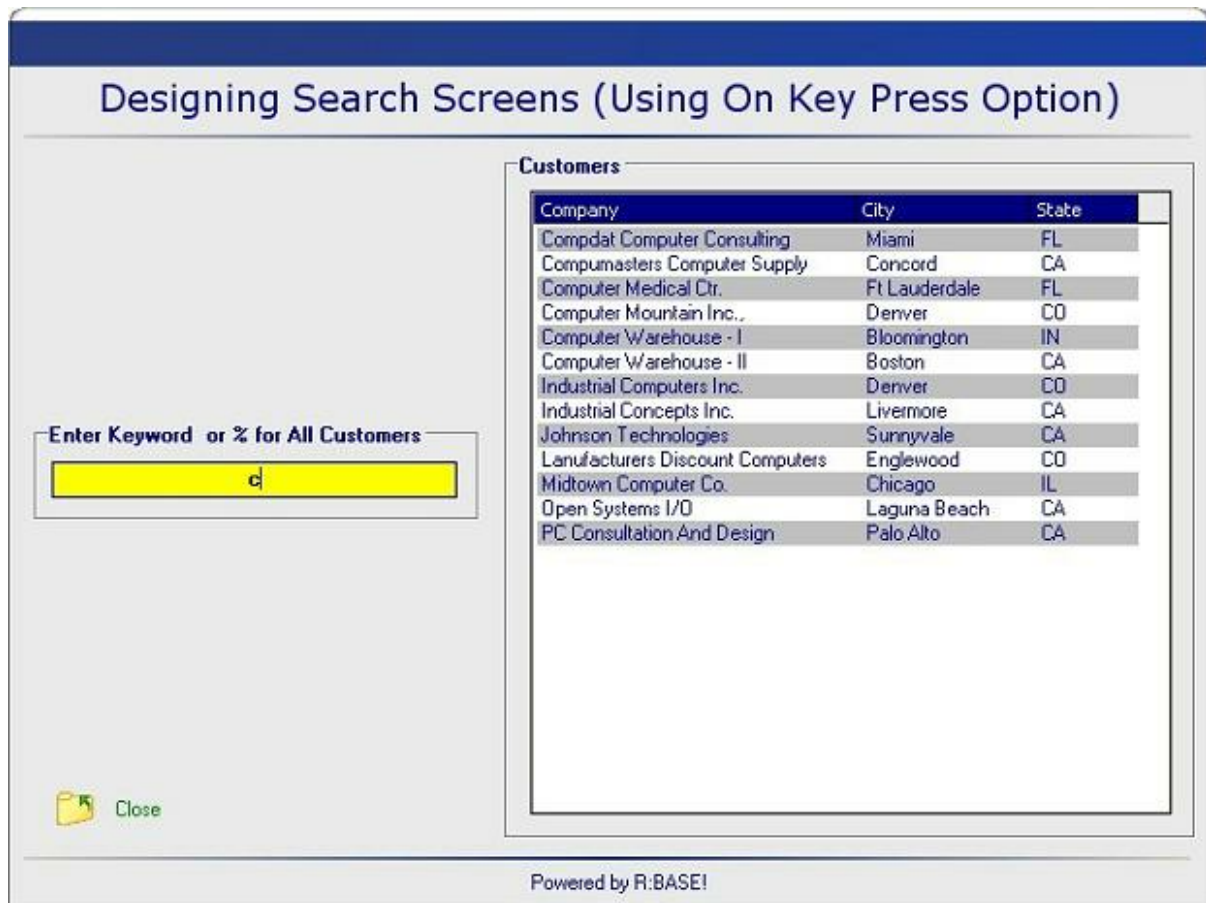
This is similar to other Toolbars.

8.63 Using the "On Key Press" EEP for Instant Results

Did you know that you can use the new "On Key Press" EEP to execute code while you start typing a character in a DB Edit or Variable Edit control?

Use "On Key Press" EEP, an event handler to make something happen as a result of a single character key press on the keyboard.

The key parameter in the "On Key Press" event handler is of type TEXT; therefore, the "On Key Press" event registers the ASCII character of the key pressed. Keys that don't correspond to an ASCII character value (i.e. [Shift] or [F1]) will not execute an "On Key Press" EEP. Key combinations of non-ASCII and ASCII characters (i.e. [Shift]+[A]), execute an "On Key Press" EEP only once. For this example, [Shift]+[A] results in a key value of "A", if [Caps Lock] is off.



A sample application to demonstrate the use of "On Key Press" EEP is also available at:

2008 SAT Sample Applications: <http://www.rupdates.com/SAT2008/>
 Folder: \DesigningSearchScreensUsingKeyPressOption
 Database: KeyPress
 Form: SearchAndEditCust2
 Command File: DesigningSearchScreensUsingKeyPressOption.dat

Supported Versions:

- R:BASE 7.6 (Build 7.6.3.30404 or higher) for Windows
- R:BASE C/S:I 7.6 (Build 7.6.3.30404 or higher) for Windows
- R:BASE Turbo (Build 8.0.17.30404 or higher) for Windows

8.64 Using Wallpapers

The Next Generation of R:BASE for Windows allows R:BASE Developers/Users to develop and deploy cool applications with a great look and feel using either standard wallpaper or custom wallpaper option of Standard Controls in Form Designer.

While this is a cool feature, as a developer/user, you'll need to assess the working environment, hardware and operating system of end-user using your wonderfully designed application(s).

Wallpaper adds additional overhead to the available memory resources on end-users' workstation. It is strongly suggested to NOT use heavy duty wallpaper(s) on your forms if your end-user is using workstations running MS Windows 98 operating system. There is no problem using cool wallpapers if end-user is running MS Windows 2000 and/or Windows XP with at least 128-256MB RAM.

Also, while in a form designer, if you're planning to use the custom wallpaper, use that as the last control after adding all other controls.

When using Wallpaper as the last control on the top of all other controls, make sure to Right Click and then select "Send To Back" in order for other controls to be visible.

8.65 Using Zebra Stripes in ListView Controls

Did you know that now you can totally customize the Variable Lookup ListView control in a form to display Zebra Stripes and custom column titles?

The latest builds of R:BASE 7.6 and Turbo V-8 include added properties to support "Zebra Stripes" as well as the options to select Background Color and Font Color for Column Titles.

For Zebra Stripes in ListView:

1. Open the R:BASE Form Designer
2. Select the ListView Control
3. Right click and select Object Property
4. Select the "Effects" tab
5. Check the option for Zebra Stripe and then select the Odd and Even colors.

For Custom Column Headers in ListView:

1. Open the R:BASE Form Designer
2. Select the ListView Control
3. Right click and select Object Property
4. Select the "Columns" tab
5. Select the column and then define the Background Color and Font Color.

Using these added properties and options, you can customize the ListView controls to match your application theme.

Here is a screen shot example:

Review Customer Record(s) Close

Select Customer(s) to Review

Cust ID	Company Name	City, State and Zip Code
124	Barton and Associates	Stony Brook, NY 11794
121	Bytes & Words	Ogden, UT 84403
109	Compdat Computer Consulting	Miami, FL 33128
116	Compumasters Computer Supply	Concord, CA 94521
112	Computer Medical Ctr.	Fl Lauderdale, FL 33309
103	Computer Mountain Inc.,	Denver, CO 80214
106	Computer Warehouse - I	Bloomington, IN 47401
100	Computer Warehouse - II	Boston, CA 02178
117	Data Solutions	Olympia, WA 98504
115	Datacrafters Infosystems	Lynnwood, WA 98037
102	Industrial Computers Inc.	Denver, CO 80214
104	Industrial Concepts Inc.	Livermore, CA 94550
126	Johnson Technologies	Sunnyvale, CA 94089
120	Lanufacturers Discount Computers	Englewood, CO 80112
122	Microcomputer Distribution	Plantation, FL 33317
101	Microtech University - I	Boston, MA 02162
111	Microtech University - II	Appleton, WI 54911
107	Midtown Computer Co.	Chicago, IL 60637
125	MIS by Design	Snoqualmie, WA 99026
119	Modular Software, Inc.	Las Vegas, NV 89104
130	Murrysville Technology Center	Murrysville, PA 15668-1854
108	Nordan Distributors, Inc.	Two Dot, IL 47401
114	Olympic Sales	Newton, MA 02160
118	Open Systems I/O	Laguna Beach, CA 92652
105	PC Consultation And Design	Palo Alto, CA 94321
128	Renaissance Computer Company	Asheville, NC 28801
110	Softech Database Design	Mercer Island, WA 98040
113	State University	Bedford, MA 01730
123	The Data Shop	Austin, TX 78701

Selected Customer(s) to Review

Cust ID	Company
129	Blue Ridge Technologies, Inc.
127	RAM Data Systems, Enterprise.

Review Data for All Selected Customers

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.2.31003 or higher ...)
- R:BASE 7.6 (C/S:I) for Windows (Build: 7.6.2.31003 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.16.31003 or higher)

8.66 Viewing Custom Form Action Code as a Hint

Did you know that when hovering over an form action, while in the form designer, you can view the entire code as hint?

R:BASE now includes a new feature to view the entire code as a hint when hovering over the form action.

To activate this new feature, an additional setting option has been implemented in the "Form Designer Settings".

Select "Settings" > "Form Designer..." from the R:BASE min Menu Bar.

On the "Form" tab, notice the "Show Form Action Designer Hints" check box.

By default this setting is unchecked.

Supported Versions:

- R:BASE 7.6 (Build 7.6.2.30102 or higher) for Windows
- R:BASE C/S:I 7.6 (Build 7.6.2.30102 or higher) for Windows
- R:BASE Turbo (Build 7.6.2.30102 or higher) for Windows

Part



9 Reports and Labels

9.1 Altering the CrossTab Grid Color

Did you know that you can customize the grid color of CrossTab control in Reports?

In addition to customizing the CrossTab column and row titles, now you may also customize the CrossTab grid color.

Here's how:

1. Start R:BASE 7.6 or Turbo V-8
2. CONNECT to RRBYW10, RRBYW12 or RRBYW14
3. From the Database Explorer > Reports > CrossTabReport > Design
4. From the Report Designer, right click on the CrossTab control and select "Grid Color..."
5. Select your favorite color and click on "OK" button
6. Click on the "Report Preview" tab to preview the report while in the Report Designer
7. Save the report and close Report Designer

You may also use the PROPERTY command to dynamically change the CrossTab grid color on demand.

Syntax:

```
PROPERTY CrossTabCompID GRIDCOLOR ColorName
```

```
-- Example 01:
```

```
PROPERTY CrossTab GRIDCOLOR 'MAROON'  
RETURN
```

```
-- Example 02:
```

```
PROPERTY CrossTab GRIDCOLOR 'GREEN'  
RETURN
```

Make sure to use above PROPERTY command as a "Before Generate..." action in reports.

9.2 Capturing Report System Variables

The following System Variables are supported in Reports:

- Date (Current Date)
- Date Time (Current Date and Time)
- Document Name (Report Name)
- Print Data Time (Print Date and Time)
- Page Count (Total page count such as 9)
- Page Set (such as 1 of 9, 2 of 9)
- Page Set with Description (such as Page 1 of 9, Page 2 of 9)
- Page Number (such as 1, 2, 3, 4, 5, 6, 7, 8, 9)
- Page Number with Description (such as Page 1, Page 2, Page 3)
- Time (Current Time)

Did you know that you can capture the value any of these System Variables using the GETPROPERTY command?

Syntax:

```
GETPROPERTY <ReportSystemVariableComponentID> TEXTVALUE varName
```

All you need to do is assign a unique Component ID to a System Variable object placed on a report band and then use GETPROPERTY command to capture the value. In addition, you may also use the following

GETPROPERTY commands to retrieve REPORT specific values.

-- To Retrieve Report Name

```
GETPROPERTY REPORT REPORT_NAME vReportName
```

Report name may also be captured using the RBTI_REPORT_NAME variable.

-- To Retrieve Total Number of Tables Associated with Report

```
GETPROPERTY REPORT REPORT_TABLE_COUNT vReportTblCount
```

-- To Retrieve the Name of Master Table

```
GETPROPERTY REPORT 'REPORT_TABLE_NAME[0]' vReportMasterTbl
```

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.3.30516 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.3.30516 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.17.30516 or higher)

9.3 Changing the Report Section for All Expressions At Once

Traditionally, while in Report Designer Expression Builder, if you need to change the [Section] of all defined variables, or a group variables, you will have to first highlight the variables, one at a time, and then select the appropriate section from the drop-down list of sections of [Calculate On], and click on [Apply] to change the section.

Did you know that you can select/highlight multiple variables, and then select the appropriate section from the drop-down list of sections of [Calculate On], and click on [Apply] to change section for all expressions at once?

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.3.10414 or higher)

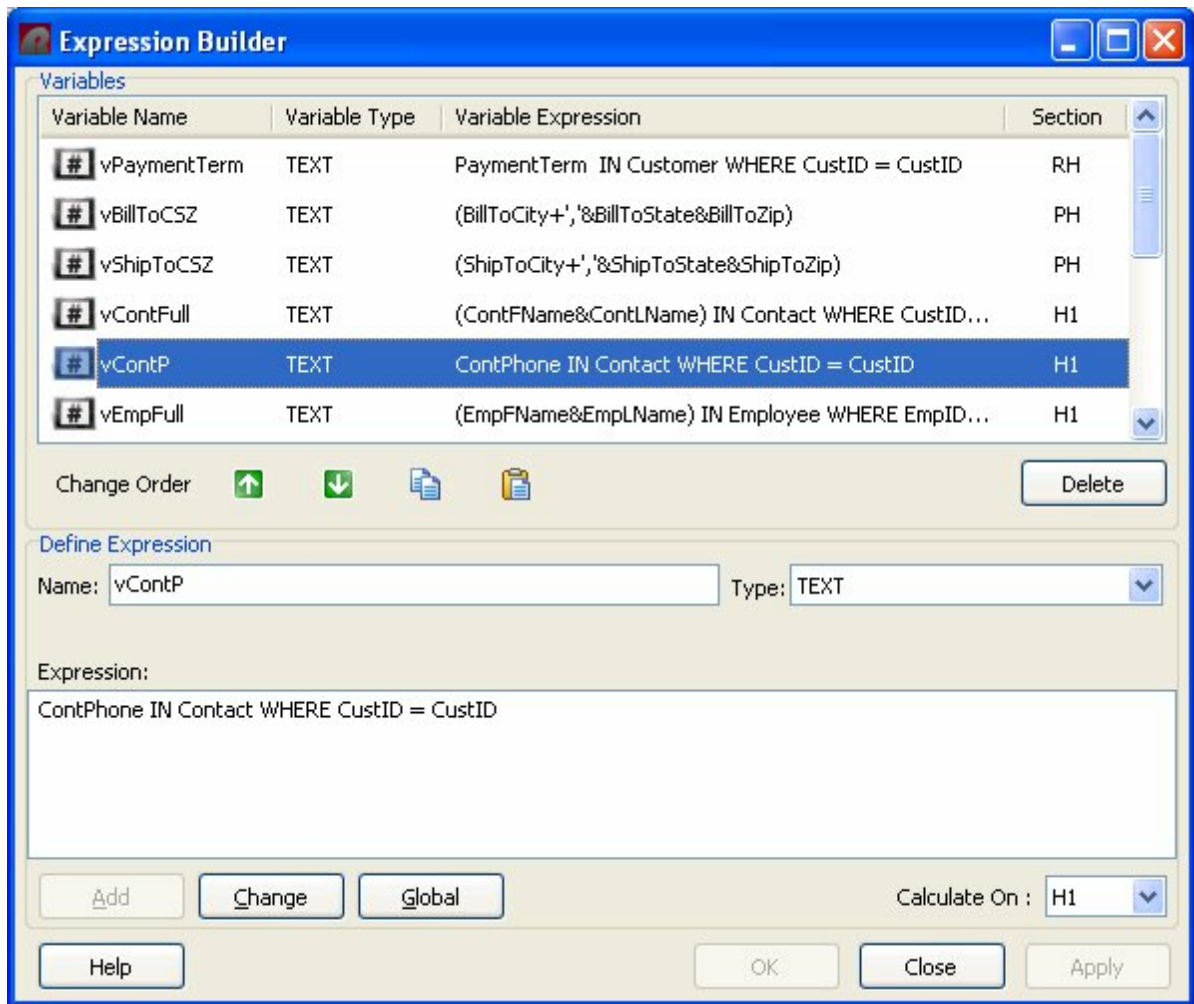
9.4 Copy and Paste Expression Builder Variables

Did you know that you can copy a report/label variable from the Expression Builder, and paste it into another report/label?

Buttons for "Copy" and "Paste" have been added to the Expression Builders for the Form, Report, and Label modules, to allow users to copy and paste selected, or all, variables.

Please note the "Copy" and "Paste" buttons are located next to the "Up" and "Down" arrow buttons, which reorder the location of a variable in the Expression Builder.

In addition, you may also use [Ctrl+C] to copy selected expression(s) and [Ctrl+V] to paste expression (s) while placing the cursor over the expression builder window.



Variables and Expressions can now be easily moved from form to form, label to label, and report to report!

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.5.11111 or higher)

9.5 Customizing Column and Row Titles for CrossTab Reports

Did you know that you can customize the "Titles" for Rows and Columns used in Cross Tab Reports?

Here's how:

1. Report Designer > Cross Tab Control > Configure ...
2. Cross Tab Configuration Layout Panel
3. Right-click on the default column heading and select "Title..." from the list of speed menu options
4. Enter the text for title and click on the [OK] button
5. Right-click on the default row heading and select "Title..." from the list of speed menu options
6. Enter the text for title and click on the [OK] button
7. Use the Steps 3-6 to also customize the following:
 - Font...
 - Color...
 - Display Format...

- Skip NULLs
- Gridlines

9.6 Customizing Print Preview Screens with Themes

Did you know that you can customize the Print Preview Screen to match your application/form theme?

Try the following examples and see what you find.

Example 01:

```
CONNECT RRBYW10
CLS
PRINT Invoice WHERE TransID = 1002 +
  OPTION SCREEN +
  |WINDOW_STATE MAXIMIZED +
  |ZOOM_TYPE PERCENTAGE +
  |ZOOMPERCENT 90 +
  |THEMENAME Razzmatazz +
  |PREVIEW_BACKGROUND_COLOR 16180442 +
  |PREVIEW_CAPTION Running R:BASE Your Way!
RETURN
```

Example 02:

```
CONNECT RRBYW10
CLS
PRINT Invoice WHERE TransID = 1002 +
  OPTION SCREEN +
  |WINDOW_STATE MAXIMIZED +
  |ZOOM_TYPE PERCENTAGE +
  |ZOOMPERCENT 90 +
  |THEMENAME R:BASE Rocks!+
  |PREVIEW_BACKGROUND_COLOR [R234,G234,B234] +
  |PREVIEW_CAPTION Running R:BASE Your Way!
RETURN
```

9.7 Customizing Report/Label Designer Toolbars

By default, a new R:BASE installation setup installs the following options for Report Designer Toolbar:

1. Standard Controls
 - Label
 - Memo
 - Rich Text
 - Image
 - Shape
 - Line
 - Diagonal Line
 - Barcode
 - CheckBox
 - Rotated Label
2. Variable Controls
 - System Variables
 - Variable Label

- Variable Memo
 - Variable Rich Text
 - Variable Image
 - Variable Barcode
 - Variable CheckBox
3. Database Controls
 - DB Label
 - DB Memo
 - DB Rich Text
 - DB Calc
 - DB Image
 - DB Barcode
 - DB CheckBox
 4. Advanced Controls
 - Region
 - Cross Tab
 5. Format
 - Font
 - Font Size
 - Bold
 - Italic
 - Underline
 - Left Justify
 - Center
 - Right Justify
 - Justify
 - Font Color
 - Highlight Color
 - Bring to Front
 - Send to Back
 6. Edit
 - displays dynamic "Edit" options when using Standard, DB and Variable Controls
- BUT ... if you would also like to see the following additional options on your Report Designer Tool Bar, all you have to do is to check remaining options as following:
- Report Designer > Main Menu > View > Toolbars and then check the options accordingly:
7. Standard
 - New
 - Open
 - Save
 - Close
 - Page Setup
 - Print
 - Print Preview
 - Cut
 - Copy
 - Paste
 - Delete
 - Select All
 8. Draw
 - Fill Color
 - Line Color
 - Line Thickness
 - Line Style
 9. Align or Space
 - Align Left
 - Align Middle

- Align Right
 - Align Top
 - Align Center
 - Align Bottom
 - Space Horizontally
 - Space Vertically
 - Center Horizontally in Band
 - Center Vertically in Band
10. Size
- Shrink Width to Smallest
 - Grow Width to Largest
 - Shrink Height to Smallest
 - Grow Height to Largest
11. Nudge
- Nudge Up
 - Nudge Down
 - Nudge Left
 - Nudge Right

Now you have every usable options visible in Report Designer Tool Bar!

You may re-arrange the sequence of Tool Bar options by simply drag-and-drop accordingly.

The last re-arranged setup will be saved under user registry.

9.8 Defining Built-in PAUSE Messages in Reports

There are situations where a report with hundreds of thousands of records may take a while to print to a file or the screen, and you may want your end-users to stay tuned while the report is being prepared.

The traditional approach of utilizing the PAUSE 3 command in an application before Printing the report is good. However, as soon as the report starts printing, the report takes over control of the window, and your good old PAUSE command is no longer staying on top. So, how do we print a huge report and display the PAUSE message until the entire report is actually generated?

Did you know that you can use a cool PAUSE 3 message within a Report Action, such as the "Before Generate..." action and then issue the "CLS" command to clear the PAUSE 3 message when the report is actually finished in an "After Generate..." action?

Here's how:

1. Start R:BASE for Windows and open your favorite report in the Report Designer
2. Choose "Report" > "Actions" > "Before Generate..." from the main Menu Bar
3. Use the following code in your "Before Generate..." action:

```
-- Before Generate Action in Report
CLS
GETPROPERTY REPORT REPORT_NAME vReportName
PAUSE 3 USING +
'Preparing Report ... Please Stand By ...' +
```

```

CAPTION .vReportName +
ICON APP +
OPTION GAUGE_VISIBLE ON +
|GAUGE_COLOR 2708091 +
|GAUGE_INTERVAL 10 +
|MESSAGE_FONT_NAME VERDANA +
|MESSAGE_FONT_SIZE 10 +
|MESSAGE_FONT_COLOR RED +
|THEMENAME R:BASE Rocks!
RETURN

```

4. Choose "Report" > "Actions" > "After Generate..." from the main Menu Bar
5. Use the following code in the "After Generate..." action

```

-- After Generate Action in Report
CLS
CLEAR VARIABLE vReportName
RETURN

```

6. Save the report

You may "Preview" the report while in the Report Designer, PRINT the report from within the Database Explorer or use the PRINT command to see the results.

Notice the real-time PAUSE 3 message with the report name as the caption and the moving gauge, all while the message stays on screen until the entire report is completely generated.

Versions:

R:BASE 7.6, C/S:I 7.6 and Turbo V-8 for Windows

9.9 Defining TEMPORARY Table(s) within a Before Generate Action

Did you know that you can design a report and then use TEMPORARY tables to populate the data dynamically using the "Before Generate" action in Reports?

Similarly, once the report is designed and finalized, you can use the "On Before Design" action to create the required table(s) before bringing up the same report in report designer.

Here's a sample report to demonstrate the use of "Before Design" and "On Before Generate" actions in Reports.

Sample Applications: <http://www.razzak.com/sampleapplications/>

Defining TEMPORARY Table(s) as On Before Generate Action in Reports

Steps:

1. Unzip the file in your sample RRBYW10 folder, such as:

```
C:\RBTI\RBG76\Samples\RRBYW10
```

or

```
C:\RBTI\RBG8\Samples\RRBYW12
```

The zip file include two files: tCustomerList.RPT and tCustomerList.LOB

2. Start R:BASE 7.6 Turbo V-8 and CONNECT to RRBYW10 or RRBYW12
3. At the R> Prompt:

```
RUN tCustomerList.RPT
```

4. At the R> prompt:

```
LIST REPORTS
```

Notice that tCustomerList report is based on tCustomerList table. However, there is no such table defined in RRBYW10 or RRBYW12

5. If you the open the tCustomerList report in Report Designer, notice that the required table is dynamically created.
6. If you run the tCustomerList report, notice that the required table with populated data is dynamically created.

To understand the entire logic, open the report in Report Designer and review the "Before Generate..." and "On Before Design..." actions.

- Report Designer > Main Menu > Report > Actions > Before Generate ...
- Report Designer > Main Menu > Report > Actions > On Before Design ...

9.10 Documenting Report/Label EEPs

Did you know that while in Report/Label Designer, you can document all Embedded Custom EPPs (if defined), as well as External EEPs (if referenced)?

In addition to documenting Custom EEPs (if defined), now you may also document all External EEPs (if referenced). This will help documenting all references related to Form External EEPs when converting legacy database/application to R:BASE 7.6 or Turbo V-8 for Windows.

Here's how:

With the Report Designer, select "Report" > "Document Custom EEPs" from the main Menu Bar, and the available output options include:

- Printer
- Text file
- PDF file
- Clipboard

With the Label Designer, select "Label" > "Document Custom EEPs" from the main Menu Bar, and the available output options include:

- Printer
- Text file
- PDF file
- Clipboard

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.4.30611 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.4.30611 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.18.30611 or higher)

9.11 Getting the Total Number of Pages in a Report

Did you know that using the GETPROPERTY command, now you can get the total number of pages in a report?

Here's how:

Use the following custom EEP as an "After Generate EEP..." for the Report Footer:

```
SET VAR vTotPageCount TEXT = NULL
GETPROPERTY REPORT TotalPageCount 'vTotPageCount'
SET VAR vPauseMessage = ('Total Number of Pages:&.vTotPageCount)
PAUSE 2 USING .vPauseMessage +
  CAPTION 'GETPROPERTY in Reports' +
  ICON INFO +
  BUTTON 'Press any key to continue ...' +
  OPTION BACK_COLOR WHITE +
  |MESSAGE_COLOR WHITE +
  |MESSAGE_FONT_COLOR GREEN
CLS
RETURN
```

9.12 Managing the Memo Control

While in Report Designer, after placing a Memo Object on appropriate band, now you can use the double-click to open Memo Editor. You may use the [Load] option to load an external file, if you wish. Clicking on the [OK] button will save the contents. Then, you will be able to preview Memo contents without using the Memo Editor.

You may still use the right-click speed menu for more options related to Memo Control in Report Designer.

Supported Versions:

- R:BASE eXtreme 9.0 (Build: 9.0.1.10624 or higher)

9.13 Opening a PDF Report in Presentation Mode

Did you know that when you PRINT an R:BASE for Windows report with the OPTION PDF parameter, you can open that PDF report in Presentation Mode?

Here's how:

Use the PRESENTATION_MODE and DURATION options when PRINTing your report as PDF.

In addition to built-in document security (64/128Bit encryption level), now you can open the PDF document with defined presentation using the User/Owner Password.

Try the following sample command file, using PDFModes sample database.

```
CLEAR VAR vCaption, vPauseMessage, vChkFile
SET VAR vCaption TEXT = 'Running R:BASE Your Way!'
SET VAR vPauseMessage TEXT = 'MUST have RBG7.5 or higher to run this
application'
SET VAR vChkFile INTEGER = NULL
IF (SGET(CVAL('BUILD'),3,1)) < '7.5' THEN
CLS
PAUSE 2 USING .vPauseMessage +
```

```

CAPTION .vCaption +
ICON STOP +
BUTTON 'Click here to continue ...' +
OPTION BACK_COLOR WHITE +
|MESSAGE_COLOR WHITE +
|MESSAGE_FONT_COLOR RED +
|BUTTON_COLOR WHITE +
|BUTTON_FONT_COLOR GREEN
EXIT
ENDIF
CONNECT PDFModes
-- Verify the existence of PDF Sub-Directory
SET VAR vChkFile = (CHKFILE('PDF'))
IF vChkFile <> 1 THEN
    MD PDF
ENDIF
PRINT SalesSumAndSubTot +
OPTION PDF +
|FILENAME PDF\SalesSumAndSubTotals.PDF +
|SHOW_CANCEL_DIALOG ON +
|BACKGROUND_FILE NONE +
|BACKGROUND_COLOR WHITE +
|INCLUDE_LINES ON +
|INCLUDE_SHAPES ON +
|INCLUDE_RICHTEXT ON +
|RICHTEXT_ENCODING_TYPE PLAINTEXT +
|INCLUDE_IMAGES ON +
|IMAGE_FORMAT JPG +
|PIXELFORMAT 32 +
|JPEG_QUALITY 100 +
|IMAGE_DPI -1 +
|INCLUDE_HYPERLINKS ON +
|GENERATE_TOC ON +
|TITLE Customer Sales Sub-Totals and Totals +
|SUBJECT Sales Summary Report +
|AUTHOR R:BASE 7.5 for Windows Report Writer +
|KEYWORDS SubTotals Totals Sales Summary +
|USE_COMPRESSION ON +
|COMPRESSION_METHOD MAXCOMPRESS +
|FONT_ENCODING WIN_ANSI +
|EMBED_USED_FONTS ON +
|ENCRYPT_FILE ON +
|USER_PASSWORD PDFModes +
|OWNER_PASSWORD PDFModesOwner +
|ENCRYPTION_LEVEL 128BIT +
|ENABLE_PRINTING OFF +
|ENABLE_COPYING OFF +
|ENABLE_MODIFYING OFF +
|HIDE_TOOLBAR OFF +
|HIDE_MENUBAR OFF +
|HIDE_WINDOW_UI OFF +
|FIT_WINDOW OFF +
|CENTER_WINDOW OFF +

```

```

|PAGE_LAYOUT SINGLE_PAGE +
|PAGE_MODE NONE +
|NON_FULL_SCREEN_PAGE_MODE NONE +
|PRESENTATION_MODE WIPE_RIGHT_TO_LEFT +
|DURATION 1 +
|OPEN ON
CLEAR VAR vCaption, vPauseMessage, vChkFile
RETURN

```

The following PDF presentation modes are supported:

- SPLIT_HOR_INWARD
- SPLIT_HOR_OUTWARD
- SPLIT_VERT_INWARD
- SPLIT_VERT_OUTWARD
- BLINDS_HOR
- BLINDS_VERT
- BOX_INWARD
- BOX_OUTWARD
- WIPE_LEFT_TO_RIGHT
- WIPE_BOTTOM_TO_TOP
- WIPE_RIGHT_TO_LEFT
- WIPE_TOP_TO_BOTTOM
- DISSOLVE
- GLITTER_LEFT_TO_RIGHT
- GLITTER_TOP_TO_BOTTOM
- GLITTER_TOPLEFT_TO_BOTTOMRIGHT

Note:

Use the password "PDFModes" or "PDFModesOwner" when prompted to open the secure PDF report.

A sample application "Opening PDF Report in Presentation Mode" is also available at:

<http://www.razzak.com/sampleapplications>

9.14 Printing a Portion of a Report to a Different Printer

Did you know that the Sub-Reports in R:BASE 7.5 for Windows also have the capability to change the printer settings for the portion of the report in which they generate?

Here's how:

Use the Sub-Report's Printer Setup property to specify the different settings, including a different printer or paper tray, etc., just as you would a normal report.

If you specify a different printer in Printer Setup than that of the main (parent) report, then a New Print Job will be started on that printer when the report generates. This means that different sections of a report can not only use different printer settings, but that they can also be sent to different printers.

To do this, click on the appropriate Sub-Report tab in report designer and then simply customize the page setup as you would do for the normal report.

Report Designer > Select Sub-Report > Main Menu ...

Main Menu > File > Page Setup ... > Printer ...

When the Page Setup property is set for the Sub-Report, then this property determines whether a new print job is started when the Sub-Report is sent to the printer. This property can be used when a portion of a report needs to be printed to a separate printer. If you need to change printer settings for a certain section, you can do so without starting a new print job. Simply set the Page Setup properties (Printer, Paper Size, Orientation, Paper Tray, etc.) and these settings will be applied as the report prints.

Think about printing a Summary Page with R:Charts Analysis on a color printer and then printing all details with hundreds of pages on a separate black and white printer.

9.15 Printing Watermark Images in RTF Reports

When printing an RTF report with transparent images as watermark, everything looks good on the SCREEN. However, if you print that exact report directly to PRINTER, you will notice that the transparency is lost. This is how the RTF reports are printed when sent directly to the printer. This is a limitation of the RTF file format when using transparent images and overlapping text.

In order to print an RTF report with transparent images as watermark, first you need to print that report as PDF and then print that PDF report to printer to achieve your goal. Here's how:

```
PRINT reportname OPTION PDF +
  |FILENAME filename.PDF +
  |RICHTEXT_ENCODING_TYPE PLAINTEXT +
  |OPEN ON
```

9.16 Retrieving Report Properties

Using the GETPROPERTY command you can retrieve the following properties of a report.

- Report Name
- Associated Number of Tables
- Associated Names of Tables (Master/Slave)

(For Sub-Reports)

Example 01: (To Retrieve Report Name)

```
GETPROPERTY REPORT 'REPORT_NAME' vReportName
RETURN
```

Variable vReportName will return the name of the report.

Example 02: (To Retrieve the Number of Associated Tables in Report)

```
GETPROPERTY REPORT 'REPORT_TABLE_COUNT' vReportTableCount
RETURN
```

Variable vReportTableCount will return the total number of associated tables in report.

Example 03: (To Retrieve the Name of Master Table Name for the Report)

```
GETPROPERTY REPORT 'REPORT_TABLE_NAME[0]' vReportMasterTable
RETURN
```

Variable vReportMasterTable will return the name of master table name for the report.

Example 04: (To Retrieve the Name of First Slave Table Name for the Report)

```
GETPROPERTY REPORT 'REPORT_TABLE_NAME[1]' vReportSlaveTable1
RETURN
```

Variable vReportSlaveTable1 will return the name of first slave table associated with a report in a Sub-Report environment.

Example 05: (To Retrieve the Name of Second Slave Table Name for the Report)

```
GETPROPERTY REPORT 'REPORT_TABLE_NAME[2]' vReportSlaveTable2
RETURN
```

Variable vReportSlaveTable2 will return the name of second slave table associated with a report in a Sub-Report environment.

9.17 Sorting Slave Tables with Forms/Sub-Reports

If you have a form with slave tables and a report with sub-reports, and if you wish to sort the matching rows related to slave table(s)/sub-report(s), you'll need to use the ARRANGE BY clause to achieve your goal.

ARRANGE tablename BY columnlist sorts the rows displayed by a form's or report's lower-level tables. Each lower-level table in the form or report that you want to sort requires its own ARRANGE clause. You can specify up to twenty-five tables to ARRANGE and up to five columns in each table on which R:BASE will sort.

Example 01:

```
Database: RRBYW10
Sample Form: SalesTransactions
Associated Tables (5):
  • Customer (Master)
  • InvoiceHeader (Slave 1)
  • InvoiceDetail (Slave 2)
  • Employee (Slave 3)
  • Contact (Slave 4)
```

Command:

```
EDIT USING SalesTransactions +
  ARRANGE InvoiceHeader BY TransID, +
  ARRANGE InvoiceDetail BY ItemNum, +
  ARRANGE Employee BY EmplName,EmpFName +
  ARRANGE Contact BY ContLName,ContFName +
  ORDER BY Company WHERE CustState = 'CA'
RETURN
```

Example 02:

```
Database: RRBYW10
Sample Report with Sub-Report: CustomerContacts
Associated Tables (2):
  • Customer (Master)
  • Contact (Slave 1)
```

Command:

```
PRINT CustomerContacts +
  ARRANGE Contact BY ContLName,ContFName +
  ORDER BY Company WHERE CustState = 'CA' +
  OPTION SCREEN|WINDOW_STATE MAXIMIZED +
  |ZOOM_TYPE PERCENTAGE|ZOOMPERCENT 90
RETURN
```

9.18 Using BRUSH_STYLE and PEN_STYLE Properties in Reports

While in Report Designer, when placing a Shape Object, you may also customize the Shape Type, Fill Color, Line Color, Line Thickness, and Line Style.

Did you know that using the new PROPERTY commands you may dynamically change the Shape Style and Pen Style as well?

Syntax:

```
PROPERTY <ShapeObjectCompID> BRUSH_STYLE 'value'
```

Supported Values:

```
SOLID
CLEAR
HORIZONTAL
VERTICAL
F_DIAGONAL
B_DIAGONAL
CROSS
DIAG_CROSS
```

```
PROPERTY <ShapeObjectCompID> PEN_STYLE 'value'
```

Supported Values:

```
SOLID
DASH
DASH_DOT
DASH_DOT_DOT
CLEAR
INSIDE_FRAME
USER_STYLE
ALTERNATE
```

You may dynamically change BRUSH_STYLE and PEN_STYLE Properties as On Before Generate Report Action or conditionally as On Before Generate Action on any Report Band, as you wish.

```
-- Example 01
-- Database: RRBYW17
-- Report: InvoiceSummary_Brush_Style_Pen_Style
-- Using New BRUSH_STYLE and PEN_STYLE Properties for Shape Control
-- Action: Report Header [Before Generate]
-- Cover Page Shapes
PROPERTY CoverPage_Shape_01 BRUSH_STYLE 'HORIZONTAL'
PROPERTY CoverPage_Shape_01 PEN_STYLE 'SOLID'
PROPERTY CoverPage_Shape_02 BRUSH_STYLE 'VERTICAL'
PROPERTY CoverPage_Shape_02 PEN_STYLE 'DASH'
PROPERTY CoverPage_Shape_03 BRUSH_STYLE 'F_DIAGONAL'
PROPERTY CoverPage_Shape_03 PEN_STYLE 'DASH_DOT'
PROPERTY CoverPage_Shape_04 BRUSH_STYLE 'B_DIAGONAL'
PROPERTY CoverPage_Shape_04 PEN_STYLE 'DASH_DOT_DOT'
RETURN
-- Action: Page Header [Before Generate]
-- Page Header Shapes
PROPERTY PageHeader_Shape_01 BRUSH_STYLE 'CROSS'
```

```

PROPERTY PageHeader_Shape_01 PEN_STYLE 'INSIDE_FRAME'
PROPERTY PageHeader_Shape_01 BRUSH_STYLE 'DIAG_CROSS'
PROPERTY PageHeader_Shape_01 PEN_STYLE 'ALTERNATE'
RETURN
-- Action: Break Footer 0 [Before Generate]
-- Break Footer Shape
PROPERTY BreakFooter_Shape_01 BRUSH_STYLE 'B_DIAGONAL'
PROPERTY BreakFooter_Shape_01 PEN_STYLE 'DASH_DOT_DOT'
RETURN
-- Action: Report Footer [Before Generate]
-- Report Footer Shape
PROPERTY ReportFooter_Shape_01 BRUSH_STYLE 'SOLID'
PROPERTY ReportFooter_Shape_01 PEN_STYLE 'DASH_DOT'
RETURN

```

For your viewing pleasure, here is a report that illustrates the use of new BRUSH_STYLE and PEN_STYLE properties of Shape control.

http://www.razzak.com/tips/InvoiceSummary_Brush_Style_Pen_Style.pdf

In addition, notice the feature of designing a custom "Cover Page" and Page Header and Page Footer options, not to mention the compact size of PDF document using R:BASE eXtreme 9.1.

Have fun implementing BRUSH_STYLE/PEN_STYLE properties in Reports!

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.3.10414 or higher)

9.19 Using Printer Control Codes

Did you know that you can use Printer Control Codes (PCC) in R:BASE for Windows? Using the new PCC (Printer Control Codes) Label control in either the Label or Report Designers, you can now send any Printer or POS Cash Drawer code to control the features of your printer or any other device that accepts application codes. Here's how:

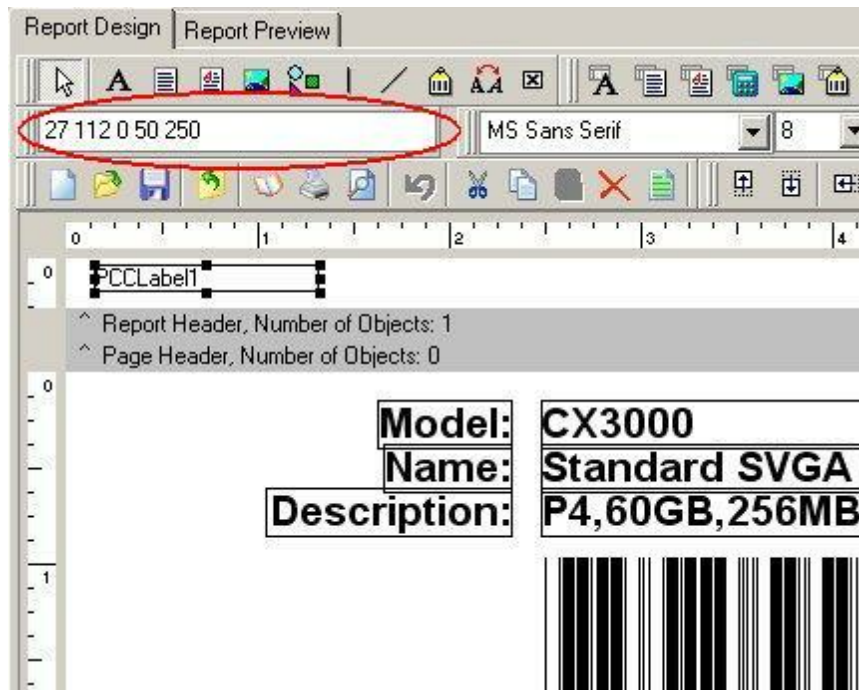
1. Start R:BASE and open the Database Explorer
2. Select Reports from the Group Bar and select an existing report
3. Right click on it and select "Design Report"
4. In the Designer, notice the new "PCC Label" control under Advanced Controls



04. While in Report Designer, select the new PCC Label control and place it on the appropriate band of the report and then enter the correct code in the "Set Value" box.

Let's assume that the control code you must send to your printer to have it open your cash drawer is 27, 112, 0, 50, 250. In that particular case, you'll need to enter the following code in Set Value box to open the cash drawer before printing the receipt in R:BASE POS system.

Enter "27 112 0 50 250" into the "Set Value" box.



Another good scenario would be where the original tractor feed forms frequently require filling in data at the top of the form, which is above the area where the print head sits at rest. In order to avoid wasting the first form, the user would need back up the form to line up the top of the form with the top of the print head which would be pretty inconvenient. The other choice would be to roll up the forms on the printer and waste the first form by leaving it blank (wastes paper and is not good for the environment or trees!).

So, to achieve that goal, now all you need to do is to place the PCC label on appropriate band of the report, enter the printer specific codes, and you are done. All hardware specific codes, when placed while in the Label or Report Designer, are only enforced when printing the label or report to a printer using the **OPTION PRINTER** command.

Supported Versions:

- R:BASE 7.6 (Build 7.6.3.30214 or higher) for Windows
- R:BASE C/S:I 7.6 (Build 7.6.3.30214 or higher) for Windows
- R:BASE Turbo (Build 8.0.16.30214 or higher) for Windows

9.20 When to Use Report Actions vs. Report Band EEPs

Do you know when it is appropriate to use Report Actions versus using Report Band EEPs?

In the R:BASE Report/Label Designer there are now several different options now available for developers and users to run custom code within reports and labels. There are "Report Actions" and "Report Band EEPs".

With Actions, there are several levels that your custom code can be executed during a report's stages of use. The levels include:

- Before Preview - executes code before a report is previewed
- After Preview - executes code after a report is previewed
- Before Generate - executes code before a report is generated
- After Generate - executes code after a report is generated
- On Before Design - executes code before the designer is launched
- On After Design - executes code after the designer is closed

A Report Action is geared to be used for initializing variables and creating temporary or permanent tables and views. The reason for this is because Report Actions are only intended to be executed once when the report is generated in the R:BASE Report Generator.

When using Report Band EEPs, you can run custom code before or after a report band, i.e. Page Header (PH), Report Footer (RF), etc., is generated. As R:BASE reports are generated from top to bottom, the Report Band EEPs will execute in this same fashion. If you right click on any report band, you will see the following options for EEPs:

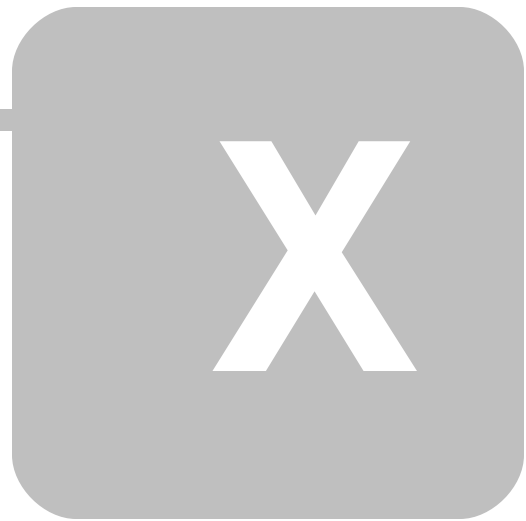
- Before Generate Custom EEP
- After Generate Custom EEP

If you intend to alter the characteristic of any report field, i.e. color, visibility, size, etc., then you must issue the appropriate PROPERTY and GETPROPERTY commands within your Report Band EEPs.

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.3.30516 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.3.305016 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.17.30516 or higher)

Part



10 File Gateway

10.1 Automating Gateway Import/Export Routines

Did you know that you can totally automate your Gateway Import/Export routines using your own custom specifications?

Using the SPECIFICATION_FILE_NAME parameter,

When using either the "Existing Table" Import option or the "Export Wizard", the "Specifications..." button is available to save your import/export options to a specification file. The specification file will store your import options for type, source file, fields, settings and mode.

The specification files can be loaded for the current data import, saved for future imports (using both the user interface or the GATEWAY command), or deleted. The specification files are stored in the current database directory with the .RGW file extension.

Import Example:

```
GATEWAY IMPORT XLS +
D:\TEMP\SkyData.XLS +
APPEND SkyData +
OPTION SHEET_INDEX 0 +
|SPECIFICATION_FILE_NAME SkyData_Imprt.RGW
```

Export Example:

```
GATEWAY EXPORT CSV +
C:\TEMP\SkyData.CSV +
OPTION COL_NAMES OFF +
|SHOW_PROGRESS ON +
|MESSAGES ON +
|SPECIFICATION_FILE_NAME SkyData_Exprt.RGW
```

10.2 Defining Column Count When Importing Data

Did you know that while automating the entire File Gateway Import routines to import MS Spreadsheet (.xls) or .CSV file into R:BASE, now you can specify the exact number of columns to import?

An additional "OPTION COLUMN_COUNT nnn" has been implemented to simplify your entire load process.

-- Example:

```
GATEWAY IMPORT filename.csv CREATE newtable OPTION COLUMN_COUNT 5
```

This command will import only first 5 columns from the CSV file.

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.7.30420 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.21.30420 or higher)
- R:BASE eXtreme 9.0 for Windows (Build: 9.0.1.10420 or higher)

10.3 Defining Header/Footer when Using GATEWAY EXPORT XLSW

When automating GATEWAY EXPORT XLSW options, did you know that you can also include Header and Footer text?

Two additional OPTIONS are implemented when exporting data as XLSW.

```
HEADER_TEXT value
FOOTER_TEXT value
```

```
-- Example 01:
```

```
-- Start here
CONNECT RRBYW17
SET ERROR MESSAGE 2077 OFF
DELETE InvoiceHeader.xls
SET ERROR MESSAGE 2077 ON
GATEWAY EXPORT XLSW InvoiceHeader.xls +
SELECT TransID AS `Invoice No`, +
TransDate AS `Invoice Date`, +
NetAmount AS `Sub Total`, +
Freight, Tax, +
InvoiceTotal AS `Invoice Total` +
FROM InvoiceHeader ORDER BY TransID +
OPTION COL_NAMES ON +
|HEADER_TEXT Customer Invoices +
|FOOTER_TEXT Quarterly Report +
|SHEET_NAME Invoices +
|ACTION OPENVIEW
RETURN
-- End here
```

Notes:

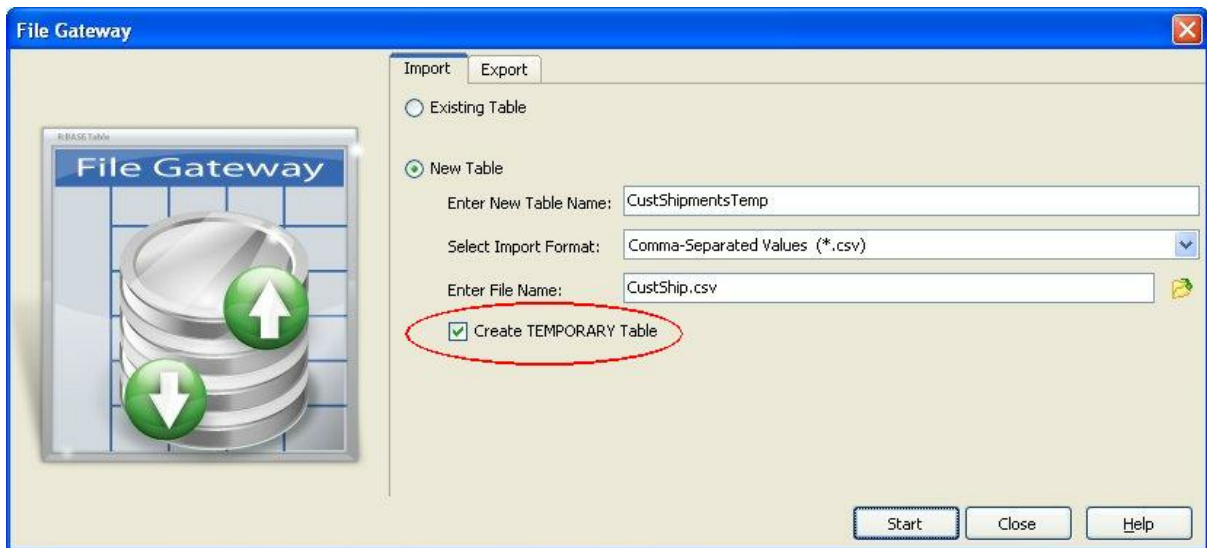
- You can customize the column names with spaces by surrounding the names with IDQUOTE character.
- Once the worksheet is opened, notice the header information in Row 1, Cell 1 (A1), and the footer information in the last row, Cell 1.
- You may also notice the "Number Format" for Invoice No, Invoice Date, Net Amount, Freight, Tax, and Invoice Total. All data types, such as INTEGER (Number), DATE, and CURRENCY are now reflected accordingly and not formatted as custom.
- You may also customize and automate the file extension (.xls or .xlsx) by using the PLUGIN RRegistry Command.

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.2.10214 or higher)

10.4 Importing New Table as Temporary

Did you know that using the File Gateway Import option, now you can create a new table as TEMPORARY?



Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.7.30420 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.21.30420 or higher)
- R:BASE eXtreme 9.0 for Windows (Build: 9.0.1.10420 or higher)

10.5 Multi-Tab Excel Workbook with Headers Using GATEWAY EXPORT XLSW

Here's an example to create multi-tab Excel Workbook with Headers using GATEWAY EXPORT XLSW options,

```
-- GATEWAY_Multi_Tab_EXPORT_XLS_XLSW.RMD
-- Author: A. Razzak Memon
-- Date Created: March 31, 2011
-- Last Updated:
IF (CVAL('DATABASE')) <> 'RRBYW17' OR (CVAL('DATABASE')) IS NULL THEN
    CONNECT RRBYW17 IDENTIFIED BY NONE
ENDIF
CLEAR VARIABLES vCaption,vPause3Message,vPause4Message,vCheckExtension
SET VAR vCaption TEXT = 'Multi-Tab XLS/XLSX Workbook'
SET VARIABLE vPause3Message TEXT = NULL
SET VARIABLE vPause4Message TEXT = NULL
SET VARIABLE vCheckExtension TEXT = NULL
SET VARIABLE vFileName TEXT = NULL
SET VAR vPause3Message = +
    ((CHAR(013))+ ' Now Preparing Multi-Tab XLS/XLSX Workbook')
CLS
PAUSE 3 USING .vPause3Message +
    CAPTION .vCaption +
    ICON INFO +
    OPTION MESSAGE_FONT_NAME Tahoma +
    |MESSAGE_FONT_COLOR GREEN +
    |MESSAGE_FONT_SIZE 11 +
    |THEMENAME Vista CG
-- Delete previously created RRBYW17_Multi_Tab_WorkBook.xl??, if any
```

```

SET ERROR MESSAGE 2077 OFF
DELETE RRBYW17_Multi_Tab_WorkBook.xl??
SET ERROR MESSAGE 2077 ON
-- Define file name with appropriate file extension (.xls or .xlsx)
-- .xlsx for MS Office Excel 2007 or higher
PLUGIN RRegistry 'vCheckExtension|CHECK_KEY|HKCR|.xlsx|'
IF vCheckExtension = 'TRUE' THEN
    SET VARIABLE vFileName = 'RRBYW17_Multi_Tab_WorkBook.xlsx'
ELSE
    SET VARIABLE vFileName = 'RRBYW17_Multi_Tab_WorkBook.xls'
ENDIF
-- Create Tab 1 (Customers)
SET VAR vPause4Message = +
    ((CHAR(013))+ ' Now Adding Tab 1 - Customers')
PAUSE 4 USING .vPause4Message +
    CAPTION .vCaption +
    ICON INFO +
    OPTION MESSAGE_FONT_NAME Tahoma +
    |MESSAGE_FONT_COLOR GREEN +
    |MESSAGE_FONT_SIZE 11 +
    |THEMENAME Vista CG
GATEWAY EXPORT XLSW .vFileName +
    SELECT CustID AS `Cust ID`, +
    Company AS `Company Name`, +
    CustAddress AS `Address`, +
    (CustCity+', '&CustState&CustZip) AS `City, State and Zip Code`, +
    CustPhone AS `Phone Number` +
    FROM Customer ORDER BY Company +
    OPTION COL_NAMES ON +
    |HEADER_TEXT Customers +
    |SHEET_NAME Customers|SHEET_INDEX 1
-- Create Tab 2 (Invoice Headers)
SET VAR vPause4Message = +
    ((CHAR(013))+ ' Now Adding Tab 2 - Invoice Headers')
PAUSE 4 USING .vPause4Message +
    CAPTION .vCaption +
    ICON INFO +
    OPTION MESSAGE_FONT_NAME Tahoma +
    |MESSAGE_FONT_COLOR GREEN +
    |MESSAGE_FONT_SIZE 11 +
    |THEMENAME Vista CG
GATEWAY EXPORT XLSW .vFileName +
    SELECT TransID AS `Invoice No`, +
    CustID AS `Cust ID`, +
    TransDate AS `Invoice Date`, +
    NetAmount AS `Sub Total`, +
    Freight, Tax, +
    InvoiceTotal AS `Invoice Total` +
    FROM InvoiceHeader ORDER BY TransID +
    OPTION COL_NAMES ON +
    |HEADER_TEXT Invoices +
    |SHEET_NAME Invoices|SHEET_INDEX 2 +
    |ACTION OPENVIEW

```

```
CLEAR VARIABLES vCaption,vPause%,vCheckExtension,vFileName
CLS
RETURN
```

Notes:

- Notice the use of PLUGIN RRegistry Command to customize and automate the file name extension (.xls or .xlsx).
- You can customize the column names with spaces by surrounding the names with IDQUOTE character.
- Once the worksheet is opened, notice the header information in Row 1, Cell 1 (A1), and the footer information in the last row, Cell 1.
- You may also notice the "Number Format" for Invoice No, Invoice Date, Net Amount, Freight, Tax, and Invoice Total. All data types, such as INTEGER (Number), DATE, and CURRENCY are now reflected accordingly and not formatted as custom.

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.2.10214 or higher)

Part

XI

11 R:BASE Editor

11.1 Commenting and Uncommenting Commands

There are several different methods you can use in order to comment and uncomment lines or blocks of code in your command files.

To comment an individual line, add two hyphen characters "--" to the beginning of the line. In R:BASE Editor, the syntax highlighting will alter the display and change the font color to pink and the style to italicized. In the following example;

```
CLEAR VAR vResult
```

the command will become:

```
--CLEAR VAR vResult
```

Another use of characters that will comment your code is the asterick character preceding a set of parentheses "*()", with the desired commented text or commands enclosed within the parentheses. In the following example;

```
PLUGIN RPDFMerge.RBL 'vResult +  
|ACTION MERGE +  
|DOC_LIST_FILE PDFFilesToMerge.LST +  
|SHOW_SETUP_DIALOG ON +  
|OUTPUT_FILE OneBigMergedFile.PDF '
```

the commands will become:

```
*(  
PLUGIN RPDFMerge.RBL 'vResult +  
|ACTION MERGE +  
|DOC_LIST_FILE PDFFilesToMerge.LST +  
|SHOW_SETUP_DIALOG ON +  
|OUTPUT_FILE OneBigMergedFile.PDF '  
)
```

Although this option is still supported in R:BASE, it is now recommended that you use an alternative method to avoid confusing parentheses with your R:BASE expressions. The suggested alternative is the use of a set of squiggly brackets "{}", with the desired commented text or commands enclosed within the squiggly brackets . In the following example;

```
PLUGIN RPDFMerge.RBL 'vResult +  
|ACTION MERGE +  
|DOC_LIST_FILE PDFFilesToMerge.LST +  
|SHOW_SETUP_DIALOG ON +  
|OUTPUT_FILE OneBigMergedFile.PDF '
```

the commands will become:

```
{  
PLUGIN RPDFMerge.RBL 'vResult +  
|ACTION MERGE +  
|DOC_LIST_FILE PDFFilesToMerge.LST +  
|SHOW_SETUP_DIALOG ON +  
}
```

```
/OUTPUT_FILE OneBigMergedFile.PDF '
}
```

Other methods to comment an entire block of text or code include the options in the R:BASE Editor:

Highlight the entire block of text

Right Click > Block > Comment

You can uncomment the entire block of your code in RBG7 REdit by:

Highlight the entire block of text

Right Click > Block > Uncomment

You may also want to explore other options in completely re-designed R:BASE Editor!

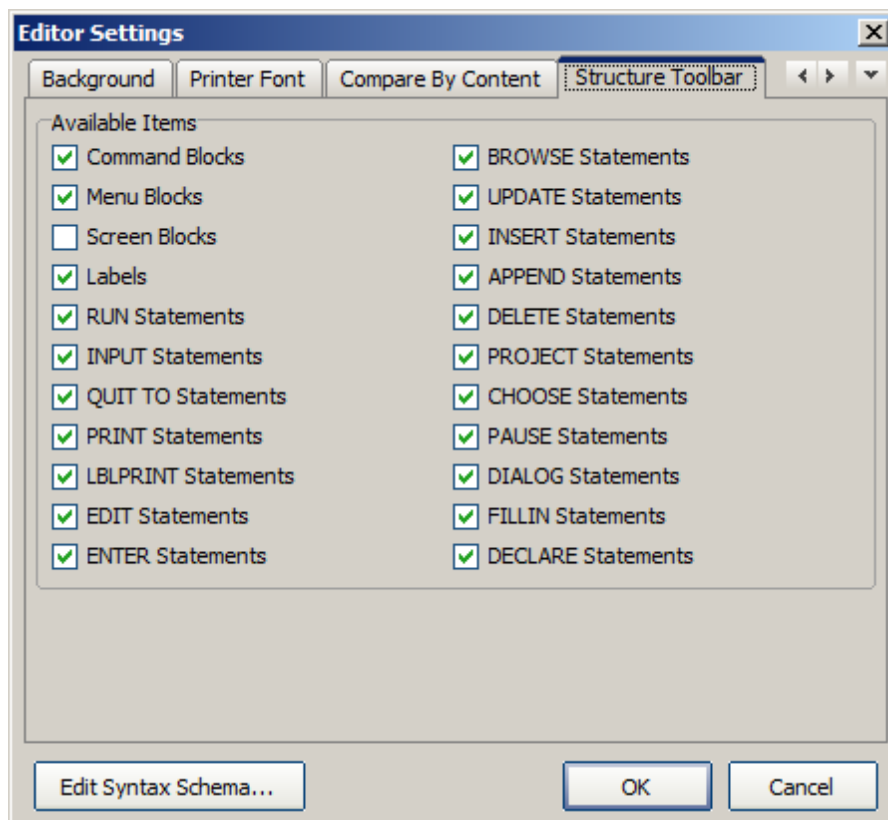
11.2 Customizing REdit Structure Toolbar Options

Did you know that you can customize the R:BASE Editor (REdit) Structure Toolbar settings to include custom structure options when editing or analyzing your application or command file?

Here's how:

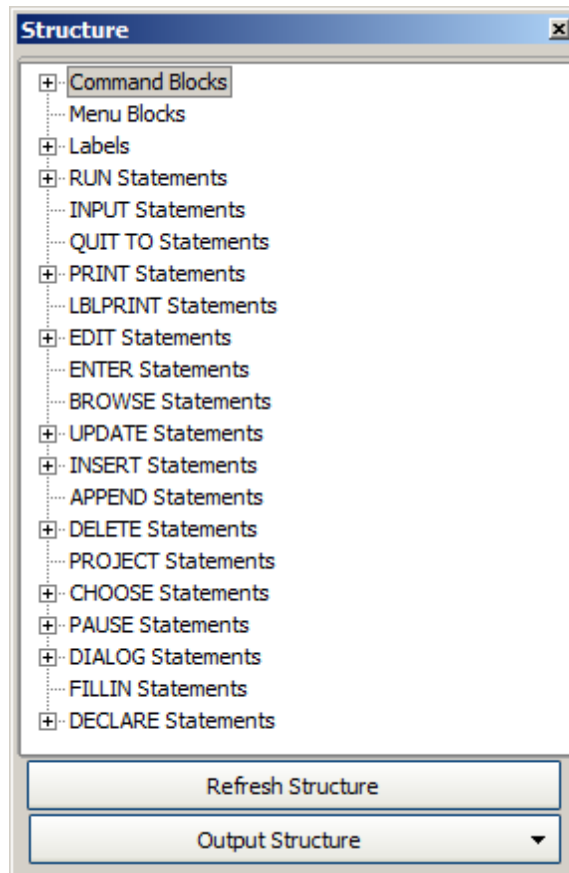
From the main Menu Bar, select > Settings > R:BASE Editor. Then, select the Structure Toolbar tab.

Once you check all appropriate options accordingly, click on OK button to save your custom settings.



Now when editing your application or command file, clicking on the [Refresh Structure] with document all

selected options.



Clicking on [Output Structure] button will let you save the entire structure with all details as follows:

- Printer
- Text File
- PDF File
- Copy to Clipboard

Have fun taking advantage of Expanded Structure as well as Output options in R:BASE eXtreme 9.1 (32/64).

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.3.10414 or higher)

11.3 Integrating the External R:BASE Editor

With the added power and features of R:BASE Editor, <http://www.rbedit.com/>, if you wish to integrate the external editor into R:BASE, all you have to do is to simply use the following command at the R> prompt:

```
SET EDITOR 'C:\RBTI\RBEedit\RBEedit.exe'
```

This will set the default editor to your choice of R:BASE Editor.

The following will reveal the setting for your default editor.

```
SHOW EDITOR
```

The default editor setting can also be captured in a variable using the following Function:

```
( CVAL( 'EDITOR' ) )
```

You may also use the following option in your R:BASE configuration file (line #86):

```
EDITOR C:\RBTI\RBEEdit\RBEEdit.exe
```

11.4 Running Your Code Within RBEEdit

Did you know that now you can RUN your code while creating new code or updating existing code while in RBEEdit?

Here's how:

1. Start R:BASE (7.6, C/S:I 7.6 or Turbo V-8)
2. Open your existing command file or simply create a new one and use the following code:

```
CLS
SET VAR vTest TEXT = 'R:BASE Rocks!'
DIALOG 'Enter Text Messge' vTest=26 vEndKey 1 +
CAPTION 'Using AUTOSELECT' ICON APP +
OPTION AUTOSELECT TRUE +
|THEMENAME R:BASE Rocks!
RETURN
```

3. While still in RBEEdit, either click on the new Run [>] button on the tool bar or use [Ctrl + F9] keys to RUN your code.

If you need to make any changes, do it while in RBEEdit and test your code again without closing RBEEdit.

Supported Versions:

- R:BASE 7.6 for Windows (Build 7.6.2.31130 or higher ...)
- R:BASE 7.6 (C/S:I) for Windows (Build 7.6.2.31130 or higher)
- R:BASE Turbo V-8 for Windows (Build 8.0.16.1130 or higher)

11.5 Wrapping Commands Using the Right Margin

Did you know that you can customize the location of the right margin in R:BASE Editor, in order expand the display of command files and EEPs?

The Right Margin is helpful in automatically displaying and wrapping long commands within the defined screen, when "Word Wrap" and "Break Word at Right Margin" are both enabled.

Here's how:

01. Within the R:BASE Editor, select "Editor Settings" > "General" tab, and locate the "Break Word at Right Margin" and "Word Wrap" check boxes in the right column.
02. Make sure both settings are enabled by clicking on the check box if it is empty.
03. While the "Editor Settings" is still displayed, select the "Display" tab and locate the "Right Margin" field (default 80 characters).
04. Using the available arrow buttons or by typing the new value, increase the value anywhere from 100 to 125, based upon your available screen space on the right.
05. Click the "OK" button.

Where long R:BASE commands are listed, you will see the extra space become populated, allowing for more of the command files to be displayed on the screen.

Have fun customizing the many options available within the R:BASE Editor!

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.3.10428 or higher)

Part



12 Trace Debugger

12.1 Managing Watch Variables in TRACE Mode

While tracing R:BASE code, using the TRACE command, you may press the [F6] key to Add/Remove Watch Variable(s) or simply right-click on the watch variables window to bring up the speed menu option, and then select click on the Add/Remove Watch Variable(s).

Using the Add/Remove Variable(s) console window, typically, you would select/highlight the variable from the list of Available Variables and then click on the right arrow [>] button to add.

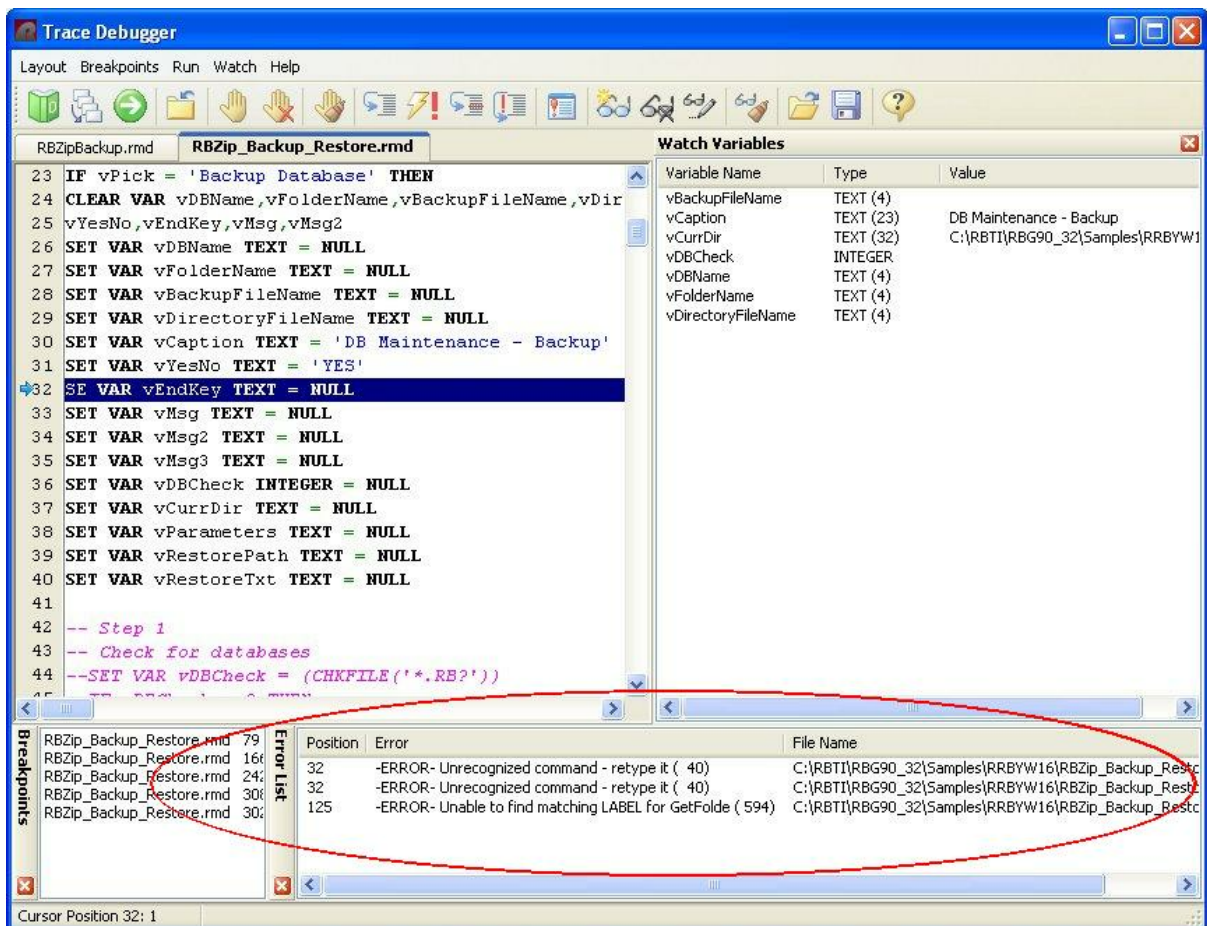
Did you know that now you can Add/Remove variable(s) by using the double-click?

Supported Versions:

- R:BASE 7.6 (Build 7.6.3.30314 or higher) for Windows
- R:BASE C/S:I 7.6 (Build 7.6.3.30314 or higher) for Windows
- R:BASE Turbo (Build 8.0.16.30314 or higher) for Windows

12.2 Tracking Errors in the Trace Debugger

Did you know that the new Trace Debugger window now include a separate option to list all errors, including the Error Number, File Name and Position?



Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.7.30420 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.21.30420 or higher)
- R:BASE eXtreme (v9) for Windows (Build: 9.0.1.10420 or higher)
-

Part



13 BLOB Editor

13.1 About the R:BASE eXtreme 9.1 BLOB Editor

The R:BASE BLOB Editor is an integrated data utility to manage Large Objects (LOBs) and Binary Large Objects (BLOBs) within R:BASE.

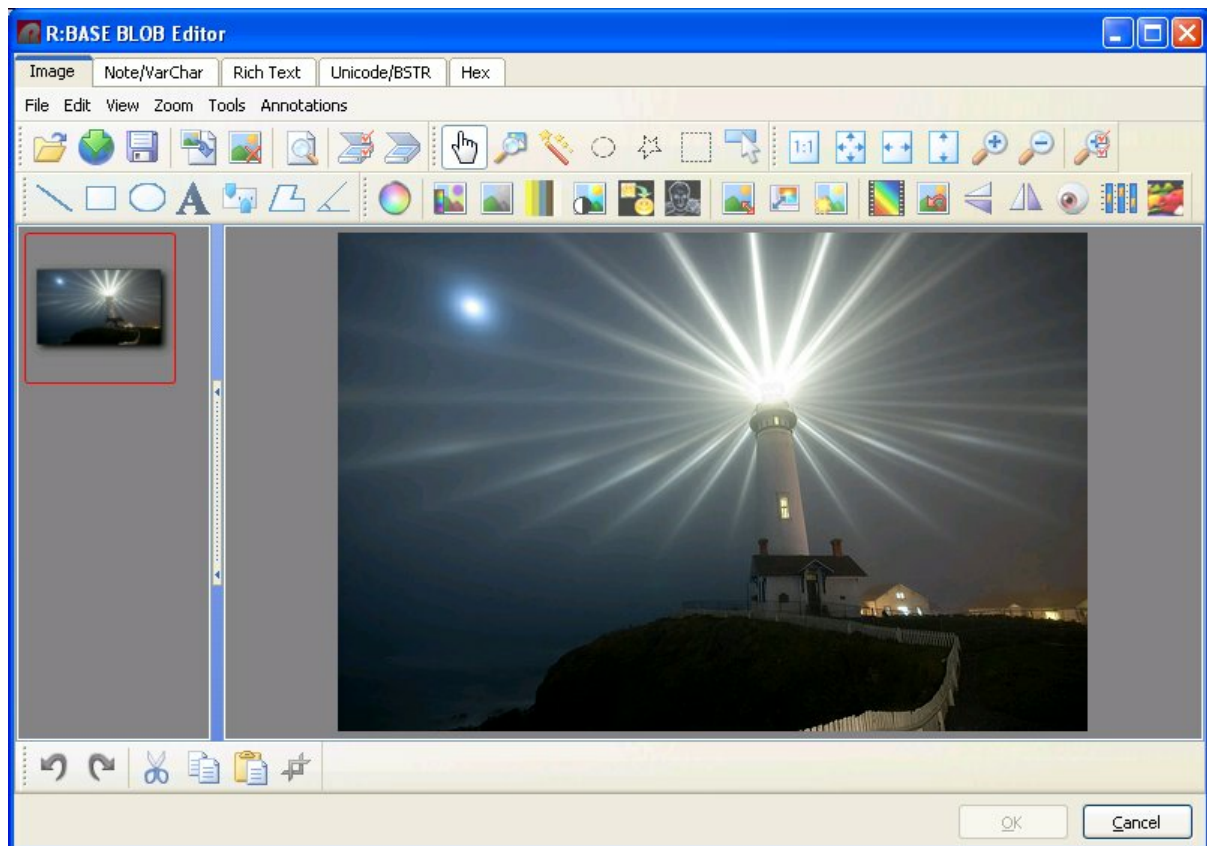
LOBs are basically large ASCII data files. These objects refer to text files that can be in any ASCII format, including RTF. The recommended data type for large text files is VARCHAR. Within the R:BASE BLOB Editor, the LOB data is manipulated from the "RTF" and "Note/VarChar" tabs. A Hex Editor is also available to manipulate binary data.

You can add, edit, or delete Binary Large Objects (BLOBs) within your database files. R:BASE recognizes the following file formats for images: BMP, JPG, GIF, WMF, PCX, EPS, SVG, TIF, PNG, ICO, EMF, WMF, and more. The R:BASE BLOB Editor has also been enhanced to manage multipage images. This enhancement will allow users to manage multipage images, such as .DCX, .GIF, or .TIFF files, when saved as BLOB data in R:BASE. The recommended data type for images is VARBIT.

The data for VARBIT and VARCHAR data types is stored in the fourth R:BASE database file.

13.1.1 Image

You can add, edit, or delete images (BLOBs) within your database files. The R:BASE BLOB Editor has also been enhanced to manage multipage images. Drawing objects, like lines, boxes, text, etc., can also be added to images.



R:BASE eXtreme 9.1 recognizes the following file formats for images:

File Format	File Extension
TIFF Bitmap	tif, tiff, fax, q3n, q3f, xif
CompuServe Bitmap	gif
JPEG Bitmap	jpg, jpeg, jpe, jif
PaintBrush	pcx
Windows Bitmap	bmp, dib, rle
Windows Icon	ico
Windows Cursor	cur
Portable Network Graphic	png
Windows Metafile	wmf
Enhanced Windows Metafile	emf
Targa Bitmap	tga, targa, vda, icb, vst, pix
Portable Pixmap, GrayMap, BitMap	pxm, ppm, pgm, pbm
Wireless Bitmap	wbmp
JPEG2000	jp2
JPEG2000 Code Stream	j2k, ipc, j2c
Multipage PCX	dcx
Camera RAW	crw, cr2, nef, raw, pef, raf, x3f, bay, orf, srf, mrw, dcr, sr2
Photoshop PSD	psd
Video for Windows	avi
Mpeg	mpeg, mpg
Windows Media Video	wmv

13.1.1.1 Menu Bar

The Menu Bar within the "Images" tab provides many other advanced features to manage and manipulate images.

File

- [Open...](#) - opens a dialog window to browse and select an image file
- [Load from URL...](#) - loads an image from a URL
- [File Save](#) - saves the current image as an external file
- Insert Image from File - inserts image(s)
- Delete Selected Images - deletes the selected image(s)
- [Print Preview...](#) - opens the Print Preview dialog for changing print-specific settings
- [Select Source...](#) - opens a window to select or change TWAIN sources
- [Acquire Pages...](#) - starts the scan process of the current document

Edit

- [Undo](#) - undoes the last change made
- Redo - redoes the last "undo" operation
- [Cut](#) - cuts the current selection
- [Copy](#) - copies the current selection
- Paste - pastes the current clipboard selection
- [Paste to Rectangle](#) - inserts or pastes the currently cut or copied selection

View

- Histogram - displays a graphical representation of the tonal distribution
- [Calculate Image Colors](#) - provides the total number of colors in the active image
- [Background Style](#) - displays a style for the image background
- [Background Color](#) - specifies the background color
- [Gradient End Color](#) - specifies the background gradient end color, when gradient is selected
- [Mouse Mode](#) - changes the mouse mode for image editing

Zoom

- Actual Size - zooms the image to the actual size
- Fit Image - fits the image to the current BLOB Editor window
- Fit to Width - fits the image to the current BLOB Editor window width

- Fit to Height - fits the image to the current BLOB Editor window height
- Zoom In - zooms in
- Zoom Out - zooms out
- [Zoom Properties](#) - applies a zoom filter

Tools









- [Color Adjust...](#) - displays a dialog to [adjust the color of the image](#)
- [Negative](#) - replaces each pixel color with its opposite on the color wheel
- [Grey Scale](#) - converts the image to gray colors
- [Reduce Colors...](#) - reduces the number of images used. A prompt for the new image number will appear.
- [Convert to BW...](#) - converts the image to black and white colors
- [Convert to True Color](#) - converts the image to a 24-bit color image
- [Edge Detection](#) - marks the points at which the intensity changes sharply
- [Resize...](#) - changes the size of the image
- Resample... - change the resolution of an image up or down
- [Effects...](#) - displays a dialog to [add effects to the image](#)
- [White Balance](#) - removes unrealistic color casts, so that objects in the image are rendered white just as in person
- [Rotate...](#) - rotates an image around its center point
- [Vertical Flip](#) - flips an image vertically
- [Horizontal Flip](#) - flips an image horizontally
- [Remove Red Eyes](#) - removes "red eye" from photos
- [Equalize](#) - builds a histogram of colors used in all pixels in the image, from the brightest to the darkest, and then alters colors of pixels in between so there is the same number of pixels at all brightness levels
- [Blur](#) - reduces areas of high contrast and softens the appearance of an image

Annotations








- DrawLine - places a line drawing object
- Draw Box - places a box drawing object
- Draw Ellipse - places an ellipse drawing object
- Draw Text - places a text drawing object
- Draw Ruler - places a ruler drawing object
- Draw Polyline - places a polyline drawing object
- Draw Angle - places an angle drawing object

13.1.1.2 Toolbars








13.1.1.2.1 Image File

Button	Description
	Open...
	Load From URL...
	File Save...
	Insert Image from File...
	Delete Selected Images
	Print Preview
	Select Source...
	Acquire Pages








13.1.1.2.2 Image Mouse Mode

Button	Description
	Scroll
	Zoom
	Magic Wand
	Ellipse Selection
	Polygon Selection
	Rectangular Selection
	Select Object




13.1.1.2.3 Image Zoom













Button	Description
	Actual Size
	Fit Image
	Fit to Width
	Fit to Height
	Zoom In
	Zoom Out
	Zoom Properties...

13.1.1.2.4 Image Annotations







Button	Description
	Draw Line
	Draw Box
	Draw Ellipse
	Draw Text
	Draw Ruler
	Draw Polyline
	Draw Angle

13.1.1.2.5 Image Tools

Button	Description
	Color Adjust...
	Negative
	Grey Scale

	Reduce Colors...
	Covert to BW... (black/white)
	Covert to True Color
	Edge Detection
	Resize...
	Resample...
	Effects...
	White Balance
	Rotate...
	Vertical Flip
	Horizontal Flip
	Remove Red Eyes
	Equalize
	Blur

13.1.1.2.6 Image Edit

Button	Description
	Undo
	Redo
	Cut
	Copy
	Paste
	Paste to Rectangle

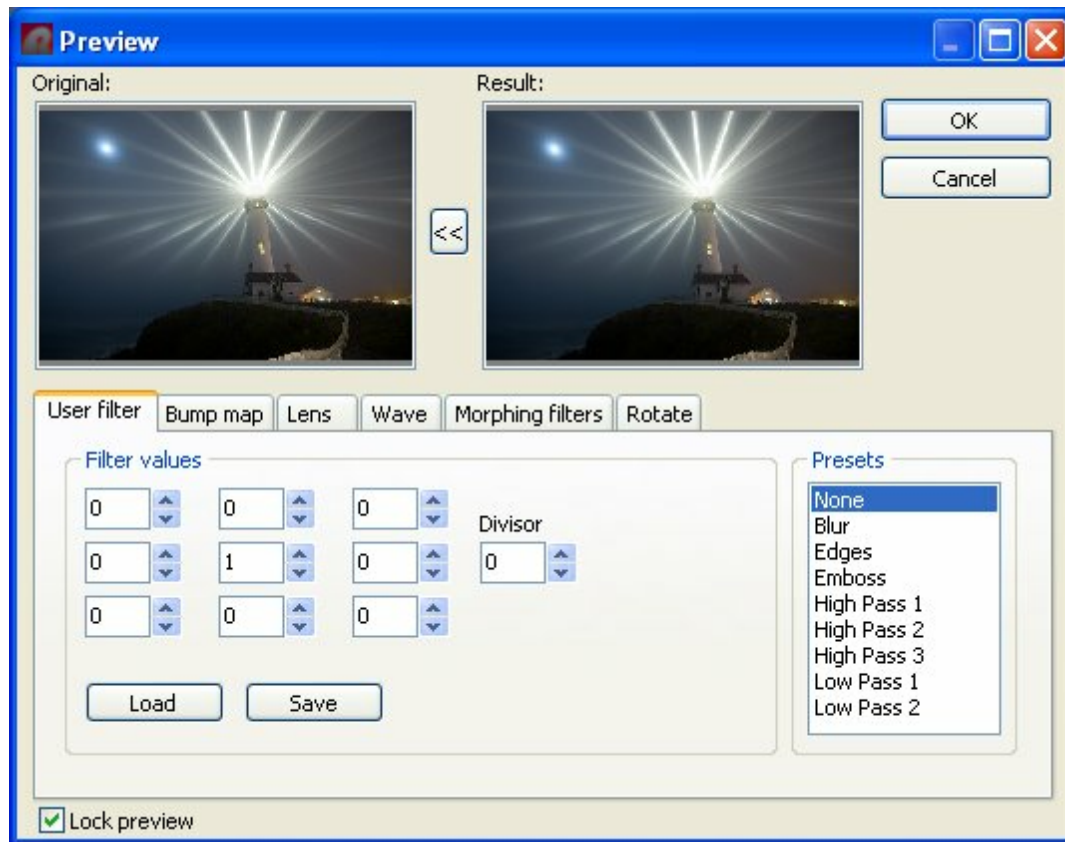
13.1.1.3 Color Adjust

When adjusting the color for an image, an original and resulting image is displayed to preview any changes before they are saved. To remove the automatic preview, unselect the "Lock preview" check box across the bottom of the window.



- Contrast - adjusts the Contrast and Brightness controls to lighten or darken the underlying layers and change the amount of shading, or contrast, between areas.
- HSV - adjusts the Hue, Saturation, and Value as related representations of points in an RGB color space
- HSL - adjusts the Hue, Saturation, and Luminosity as related representations of points in an RGB color space
- RGB - adjusts the Red, Green, Blue based upon the RGB color model
- Equalization - distributes the lightness values of the pixels more evenly across the light spectrum from black to white
- FFT - (Fast Fourier Transform) converts the image from the image (spatial) domain to the frequency domain
- Gamma correction - adjusts the the contrast and brightness in unison by using the red, green, and blue check boxes adjust the image color balance
- Sharpen - increases the contrast between adjacent pixels where there are significant color contrasts, usually at the edges of objects

13.1.1.4 Effects



- User filter - provides filter presets, with the ability to load and save custom filters
- Bump map - creates a 3D effect by embossing an image and then mapping it to another image
- Lens - adds a lens filter to enhance depth
- Wave - distorts the image as if it had been disturbed by a number of waves
- Morphing filters - warps the image
- Rotate - rotates the image to an exact degree

13.1.1.5 Image Annotations

When adding or displaying images in the R:BASE BLOB Editor, annotations can be made using several type of drawing tools. Objects include:

- Line
- Box
- Ellipse
- Text
- Ruler
- Polyline
- Angle

Image Annotation Notes:

- After an object is added to the image, the properties will automatically display. Double clicking on the object will redisplay the Properties dialog.
- When a field object is selected, small tan circles appear on the corners and sides or line ends,

based upon the drawing object added. These circles are called handlebars which are used to manipulate the size and location.

- Objects can be stretched, resized and/or manipulated by hovering the mouse cursor over and dragging any of the available handlebars that are displayed upon the object's edges or end points. The cursor will change to a double pointed arrow.
- Objects can be moved by hovering the mouse cursor along any line portion of the object between the handlebars and dragging the mouse cursor. The cursor will change to a black four-pointed cross.
- After placing an object, any objects added after will use the same pen and brush properties, if the setting applies.
- When placing a text object, "Draw Text" option, on an image and then clicking the "OK" button to save the object properties, start typing your text. You will notice the text being displayed against a grey background.
- In order to save an image annotation, double click on the thumbnail (left side of the separator). The change will then be visible in the thumbnail image.
- Selecting the "OK" or "Cancel" buttons (lower right corner) of the R:BASE BLOB Editor will save or cancel your changes accordingly.

13.1.1.5.1 Line

Pen Settings

Color - specifies the line color

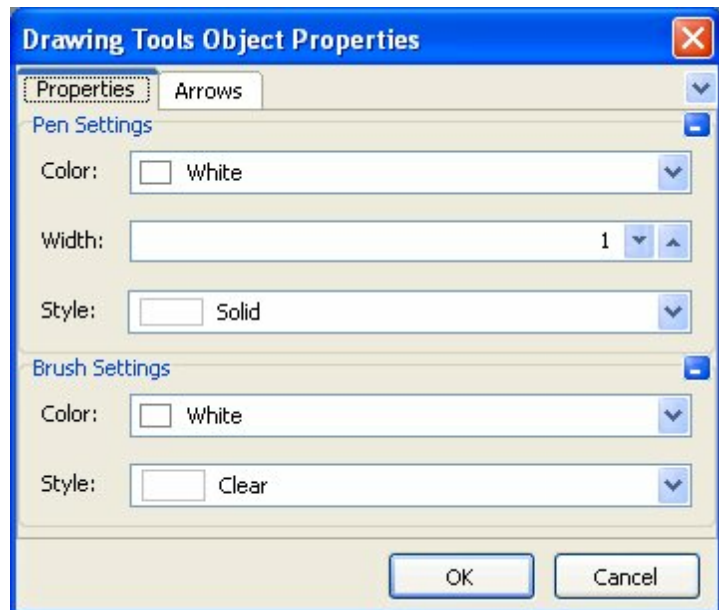
Width - Specifies the line width

Style - specifies the line style

Brush Settings

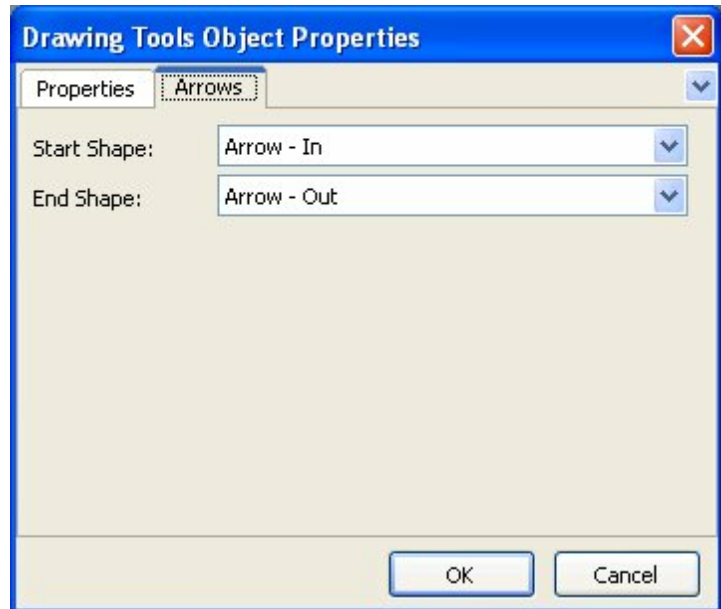
Color - specifies the fill color for the arrow start and end shapes, if defined

Style - specifies the fill style for the arrow start and end shapes, if defined

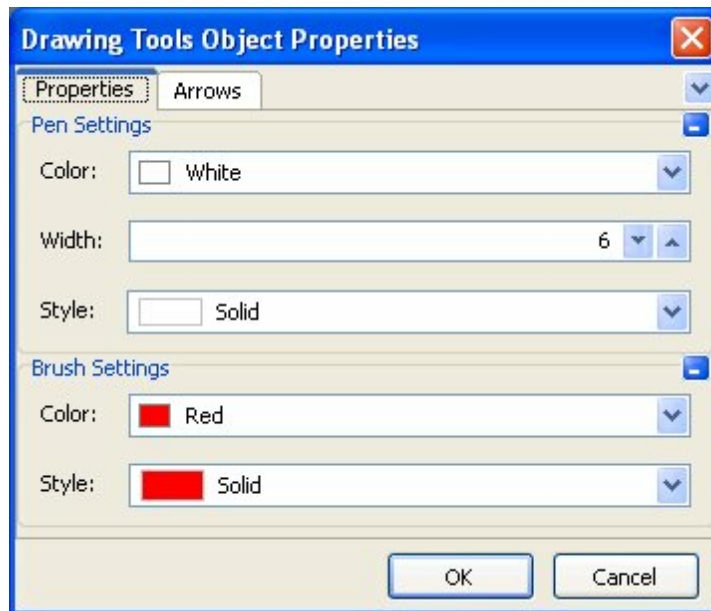


Start Shape - specifies the arrow start shape for the line

End Shape - specifies the arrow end shape for the line



The following object properties for a line were used to add the line object in the screen shot below.



Notice the handlebars on each end of the line that can be used to stretch or move the starting/ending points for the arrow.



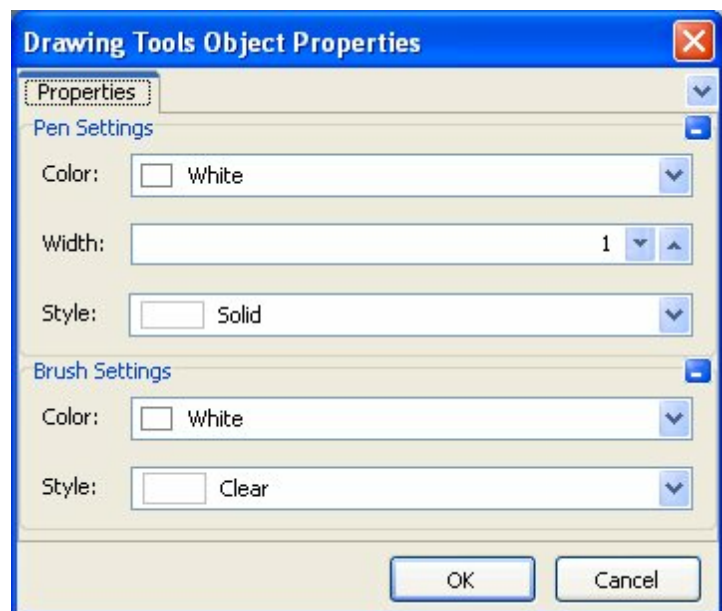
13.1.1.5.2 Box

Pen Settings

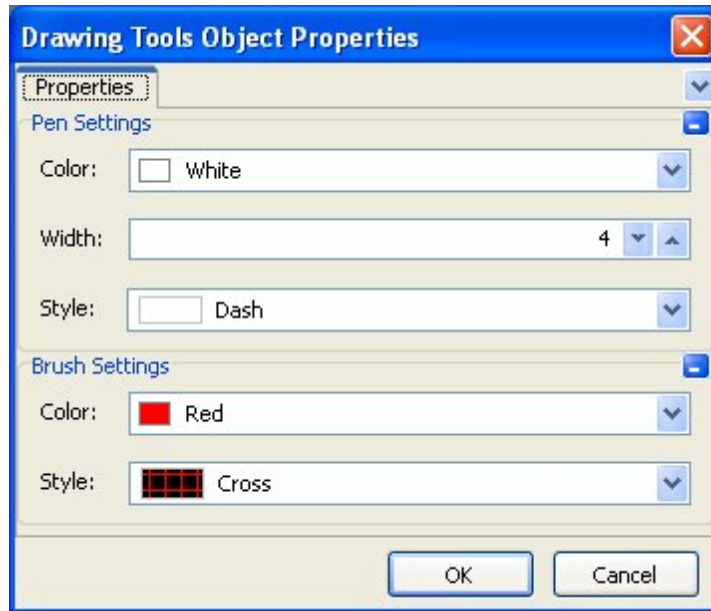
Color - specifies the box border color
Width - Specifies the box border width
Style - specifies the box border style

Brush Settings

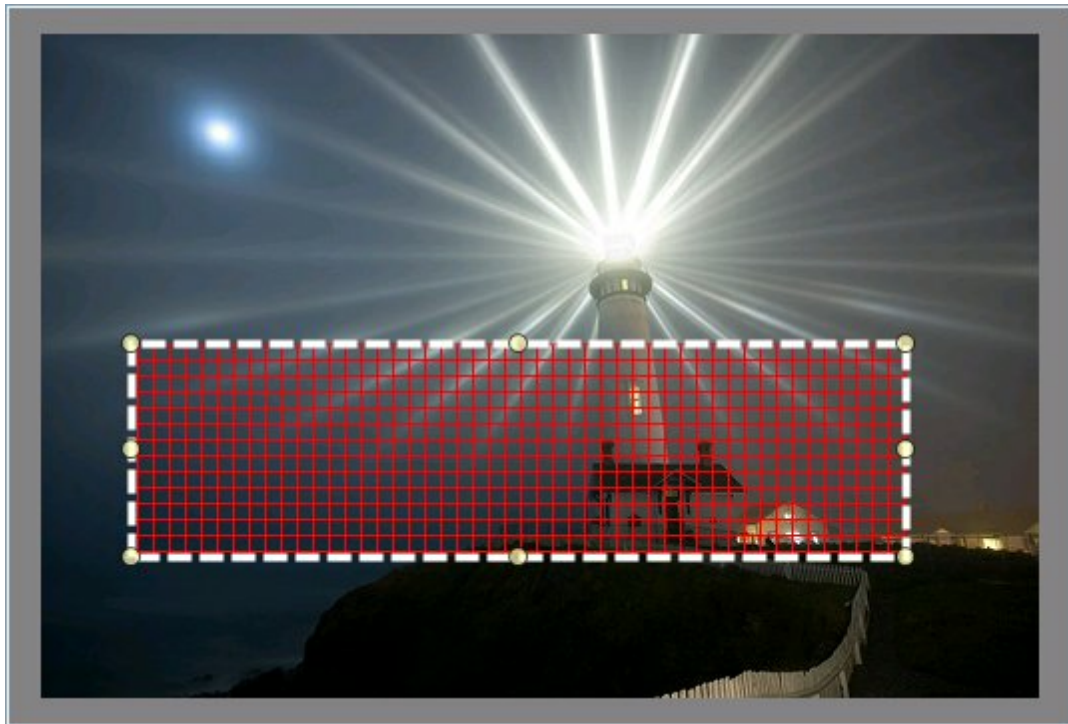
Color - specifies the box fill color
Style - specifies the box fill style



The following object properties for a box were used to add the object in the screen shot below.



Notice the handlebars on each corner, and between each corner, that can be used to stretch or move the box.



13.1.1.5.3 Ellipse

Pen Settings

Color - specifies the ellipse color

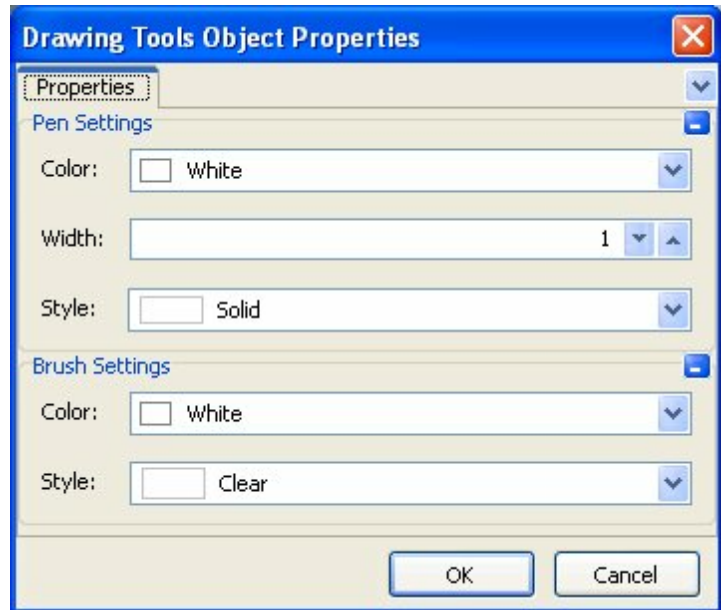
Width - Specifies the ellipse width

Style - specifies the ellipse style

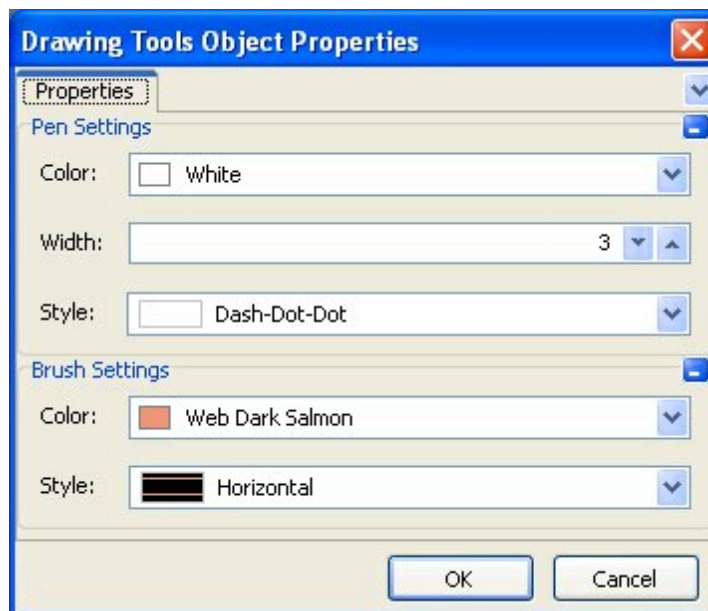
Brush Settings

Color - specifies the ellipse fill color

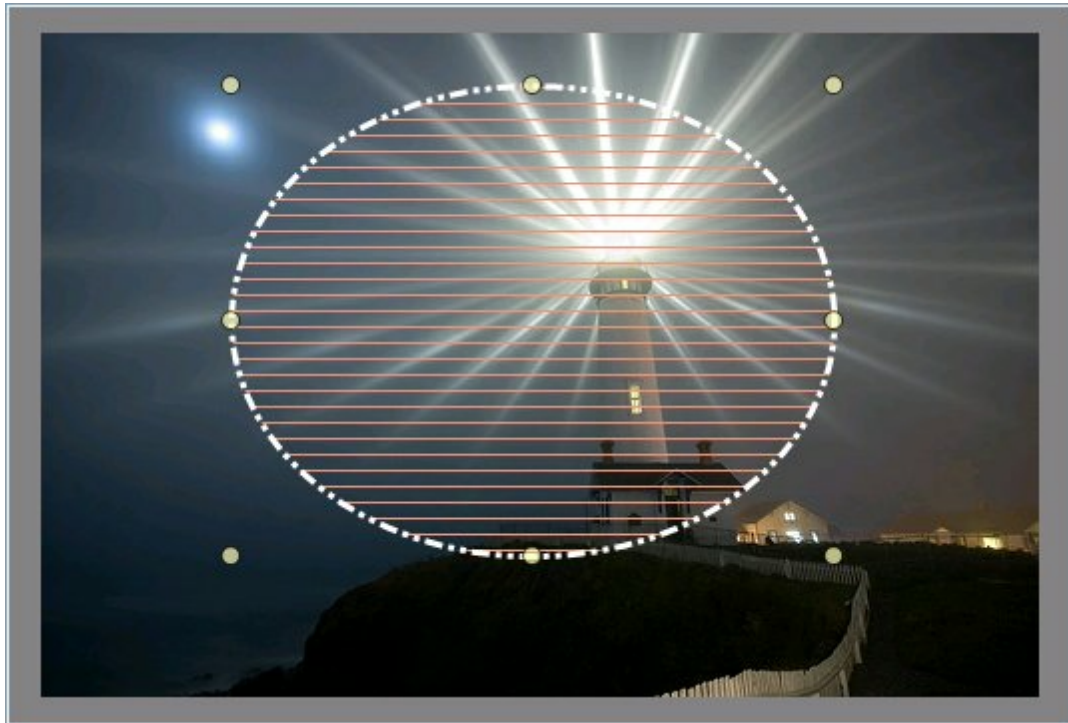
Style - specifies the ellipse fill style



The following object properties for an ellipse were used to add the object in the screen shot below.



Notice the handlebars at the corners and sides that can be used to stretch or move the ellipse.



13.1.1.5.4 Text

Pen Settings

Color - specifies the text and border color

Width - Specifies the text border width

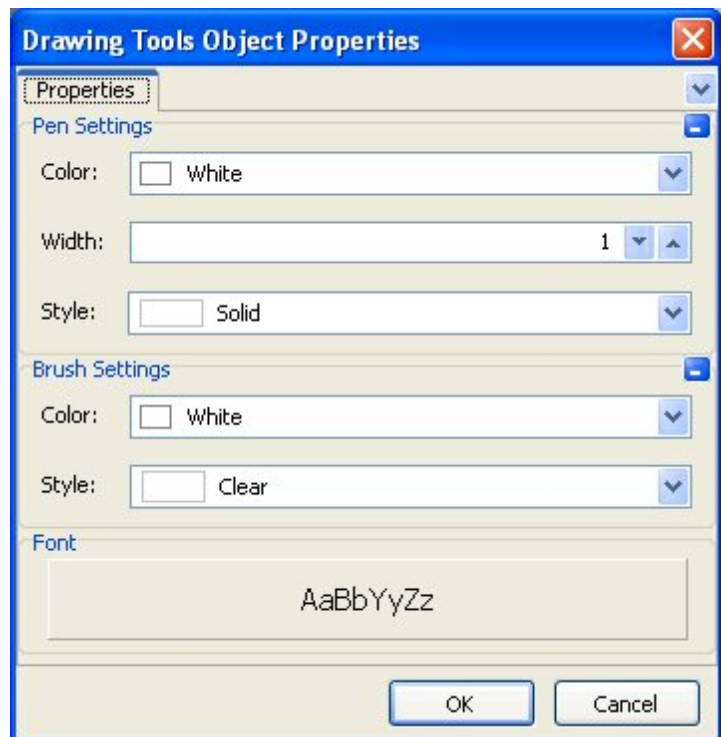
Style - specifies the text border style

Brush Settings

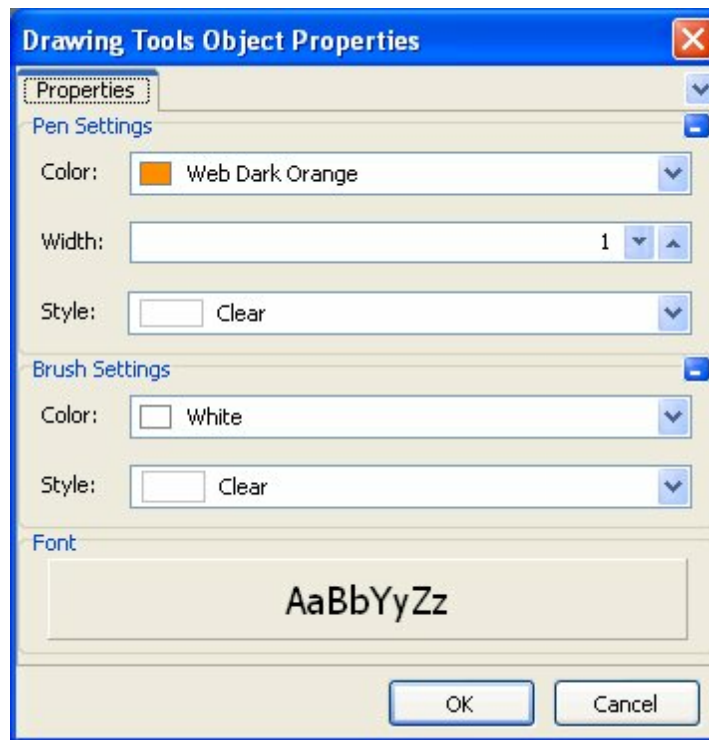
Color - specifies the text background color

Style - specifies the text background style

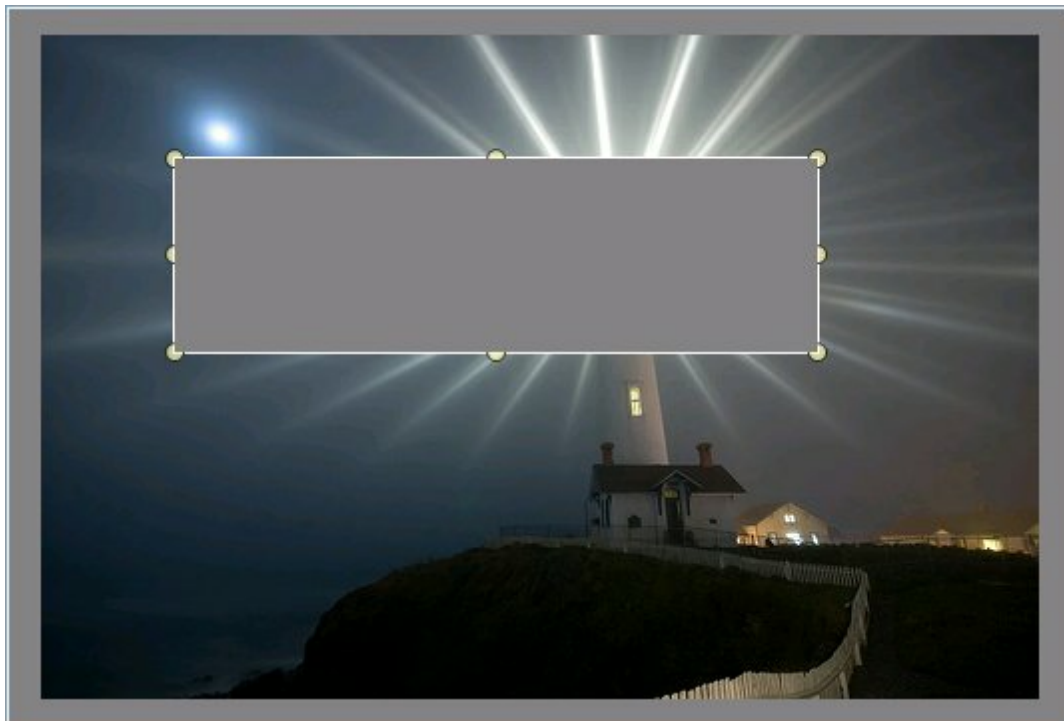
Font - specifies the text font type, size, and style



After adding the Text object, the following object properties were used.



The gray box is the input mode waiting for your text key entry.



With the above settings, the text is displayed in the screen shot below. Notice the handlebars at the

corners and sides that can be used to stretch or move the text object.

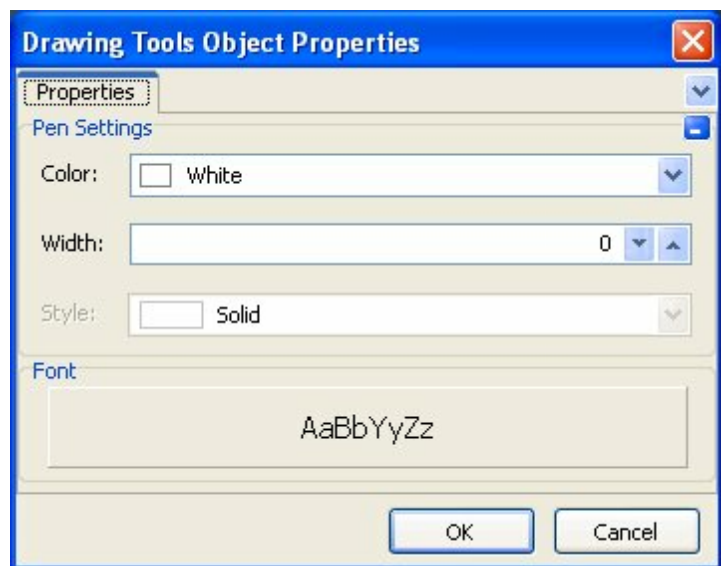


13.1.1.5.5 Ruler

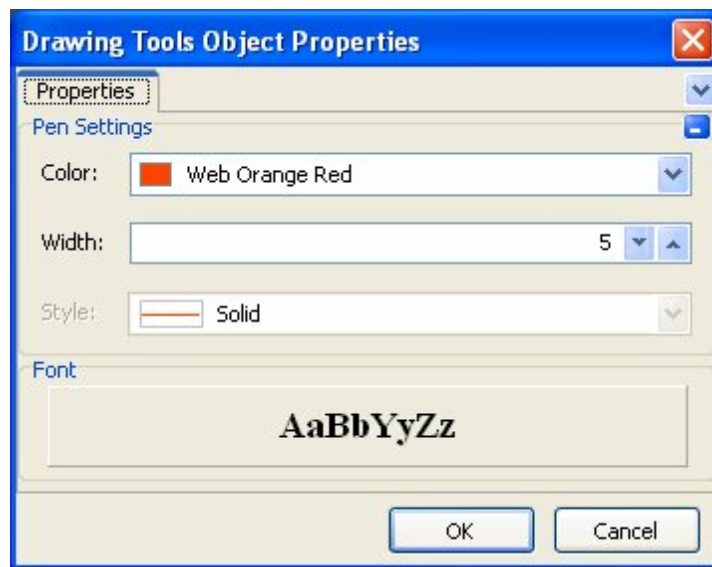
Pen Settings

Color - specifies the ruler line color
Width - Specifies the ruler line width

Font - specifies the text font type, size, and style



After adding the Ruler object, the following object properties were used.



With the above settings, the ruler is displayed in the screen shot below.



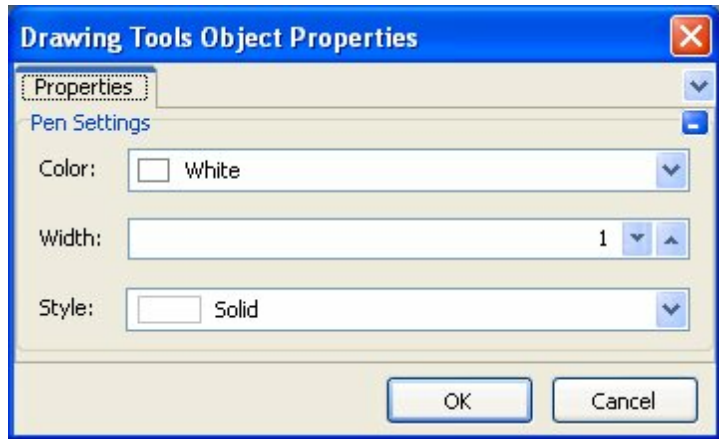
13.1.1.5.6 Polyline

Pen Settings

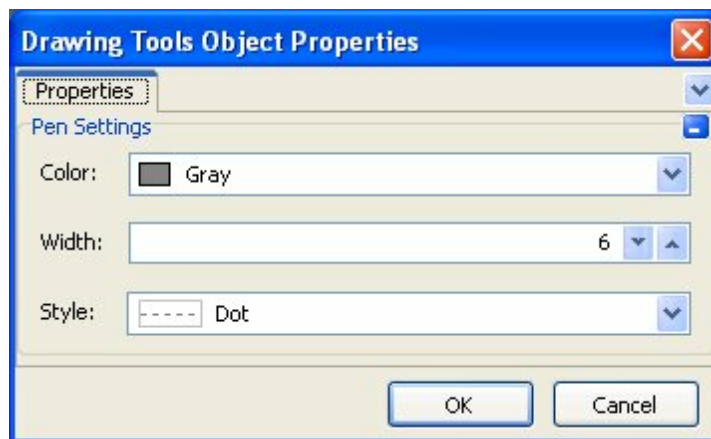
Color - specifies the polyline border color

Width - Specifies the polyline border width

Style - specifies the polyline border style



The following object properties for a polyline were used to add the object in the screen shot below.



Notice the handlebars at the corners and sides that can be used to stretch or move the polyline.

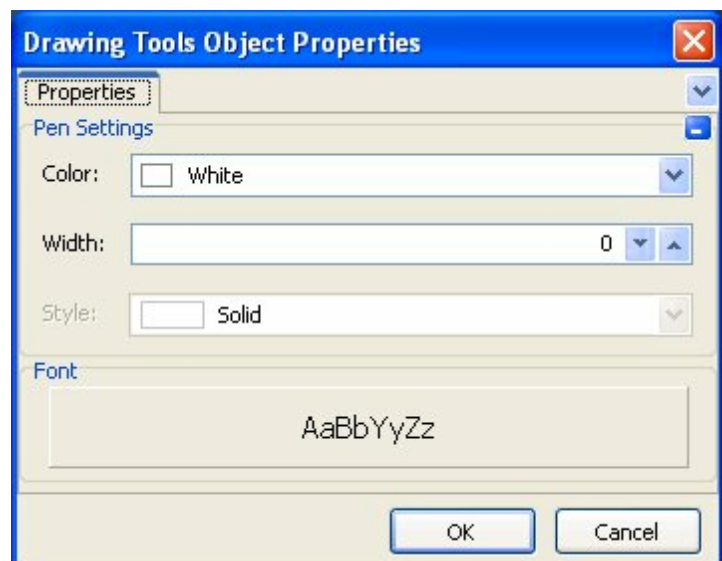


13.1.1.5.7 Angle

Pen Settings

Color - specifies the angle line color
Width - Specifies the angle line width

Font - specifies the text font type, size, and style



After adding the Angle object, the following object properties were used.

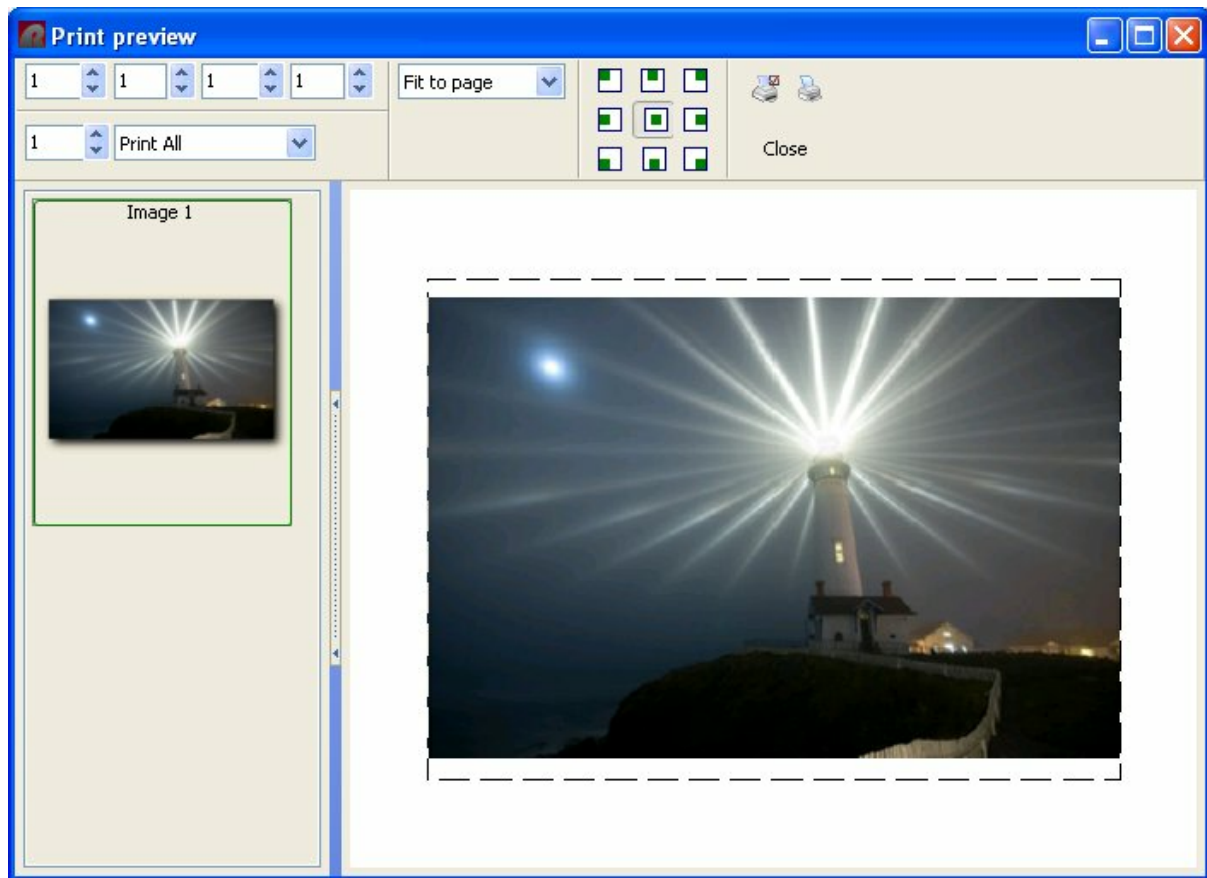


Notice the handlebars at the end and corner that can be used to stretch or move the angle object.



13.1.1.6 Print Preview

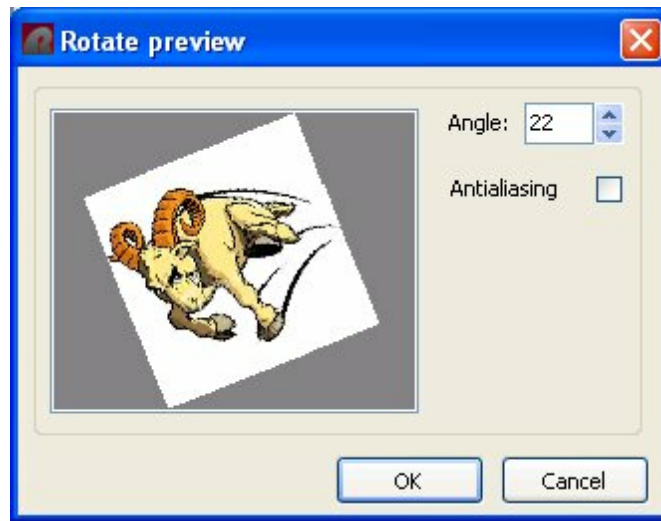
The Print Preview screen allows the image print to be customized with the margins, size, location, gamma correction, and the ability to print a selected image.



13.1.1.7 Rotate

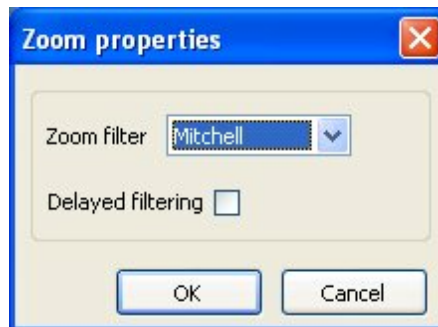
An image can be rotated within the R:BASE BLOB Editor. By selecting up/down arrows for the "Angle" field, the image will rotate based upon the angle value.





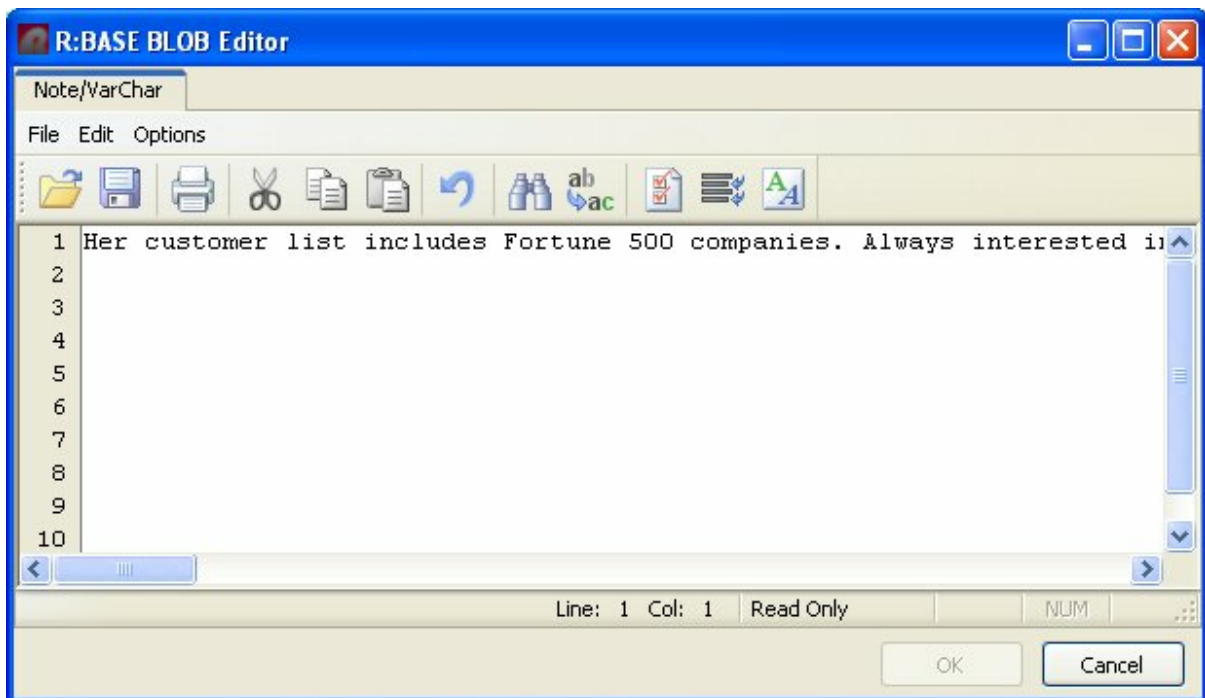
13.1.1.8 Zoom Properties

The Zoom properties allow for various filter methods for zooming in and out of large images.















13.1.2 Note/VarChar

You can load, edit, and save Note/VarChar data within R:BASE.

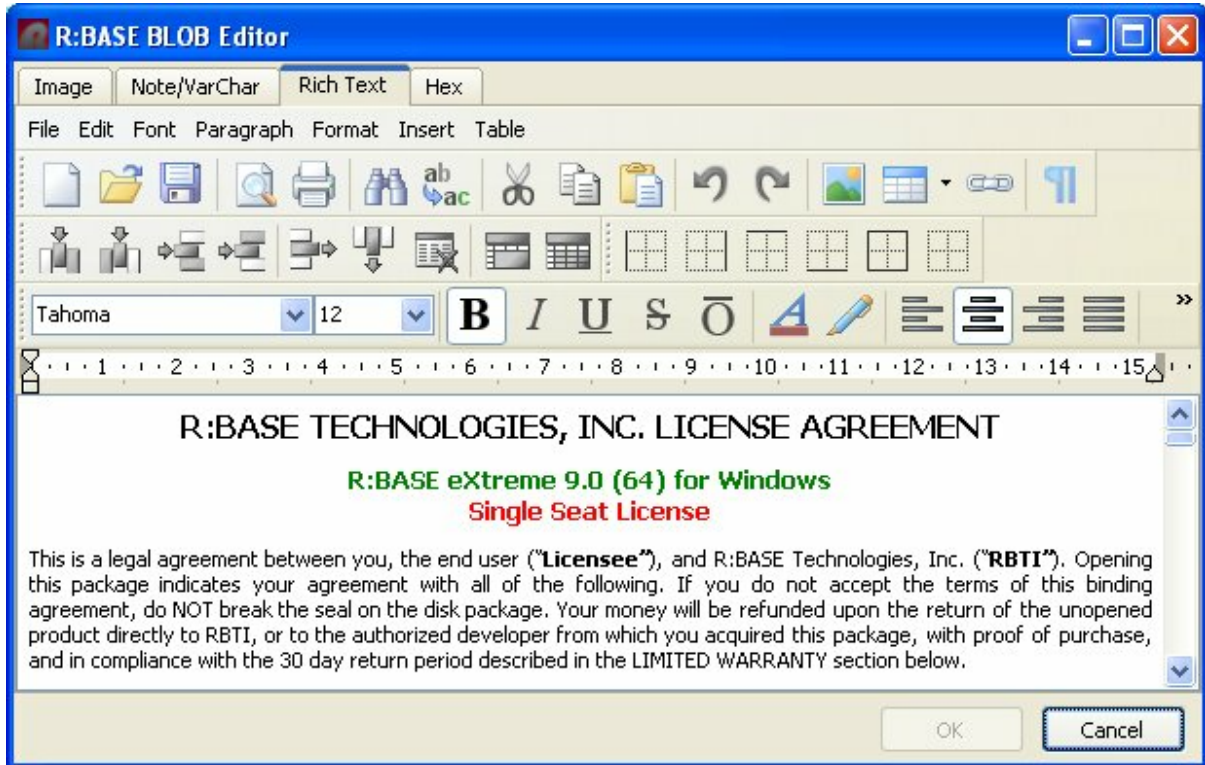


Toolbar

Button	Description
	Load From External File
	Save To External File
	Print
	Cut selected item
	Copy selected item
	Paste contents
	Undo the last action
	Search
	Search and Replace
	Show/Hide Right Margin
	Word Wrap
	Font...

13.1.3 Rich Text

You can load, edit, and save RTF data within R:BASE. The "RTF" tab of the R:BASE BLOB Editor allows many word processing capabilities for your RTF data.



Menu Bar

File

- *New* - allows you to create a new file
- *Open* - opens an existing file
- *Save* - saves the current file
- *Save As...* - saves the current file as a new file
- *Export* - exports the current file to an RTF or text file
- *Print Setup...* - opens the Print Setup dialog for changing page specific settings
- *Print Preview* - opens the Print Preview dialog
- *Print* - prints the current file to the default printer

Edit

- *Undo* - undoes the last change made
- *Redo* - reverses the effect of the last undo
- *Cut* - cuts the currently selected object(s)
- *Copy* - copies the currently selected object(s)
- *Paste* - pastes the currently cut or copied object(s)
- *Paste Special* - pastes text as Richview, rich text, text or Unicode format
- *Make Line(s) Read-Only* - current file becomes read-only or removes read-only status
- *Find...* - opens Find Text dialog box to locate text
- *Find Next* - locates the next text where matches search
- *Replace...* - opens Replace Text dialog box to locate and replace text
- *Character Case* - alters the case of the selected text
- *Insert Page Break* - adds a page break
- *Remove Page Break* - removes the page where the cursor is located

- Select All - selects all of the items

Font

- Font - alters a text font type, size, style, effect, character spacing, horizontal spacing, and offset
- Style - alters the select text style
- Size - alters the selected text size
- Text Color - alters the text color
- Text Background Color - alters the text background color

Paragraph

- Paragraph - specifies paragraph indents, spacing, tabs, and text flow
- Paragraph Borders and Background - specifies paragraph border options and color settings
- Align Left - aligns text to the left
- Align Center - aligns text to the center
- Align Right - aligns text to the right
- Justify - justifies text to fit within the window
- Bullets and Numbering - allows customized options for bulleted and numbered lists
- Bullets - adds list bullets to the selected text
- Numbering - adds list numbering to the selected text
- Word Wrap - specifies if text is wrapped within the window
- Decrease Indent - decreases the indent for text
- Increase Indent - increases the indent for text
- Single Line Spacing - enables single line spacing
- 1.5 Line Spacing - enables 1.5 line spacing
- Double Line Spacing - enables double line spacing

Format

- Background - adds an image to the background
- Background Color - specifies the entire background color
- Fill Color - specifies the fill color
- Object Properties - used to edit Table Properties

Insert

















- File - inserts a rich text or text file
- Picture - inserts an image
- Horizontal Line - inserts a horizontal line
- Hypertext Link - adds a hypertext link
- Symbol - inserts a character symbol
- DB Label - inserts a database label for a column
- Variable Label - inserts a variable label for a defined variable













Table







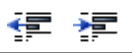
- Insert Table - inserts a table
- Insert Column Left - inserts a column to the left of the cursor within the current table
- Insert Column Right - inserts a row to the right of the cursor within the current table
- Insert Row Above - inserts a row above the cursor within the current table
- Insert Row Below - inserts a row below the cursor within the current table
- Delete Rows - deletes the selected rows
- Delete Columns - deletes the selected columns
- Delete Table - deletes the current table
- Select - allows a table, the columns, rows, or all to be selected

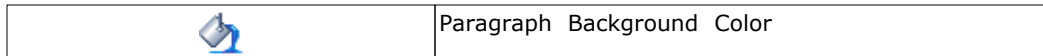
- Align - allows alignment options
- Cell Borders - toggles the display of the table cell borders
- Split Cells - splits a current cell
- Merge Cells - merges the selected cells
- Show Grid Lines - toggles the display of the table grid lines
- Table Properties - displays the Table Properties

Toolbars

Button	Description
	New
	Open
	Save
	Print Preview
	Print
	Find
	Replace
	Cut
	Copy
	Paste
	Undo
	Redo
	Picture
	Insert Table
	Hypertext Link
	Nonprinting Characters

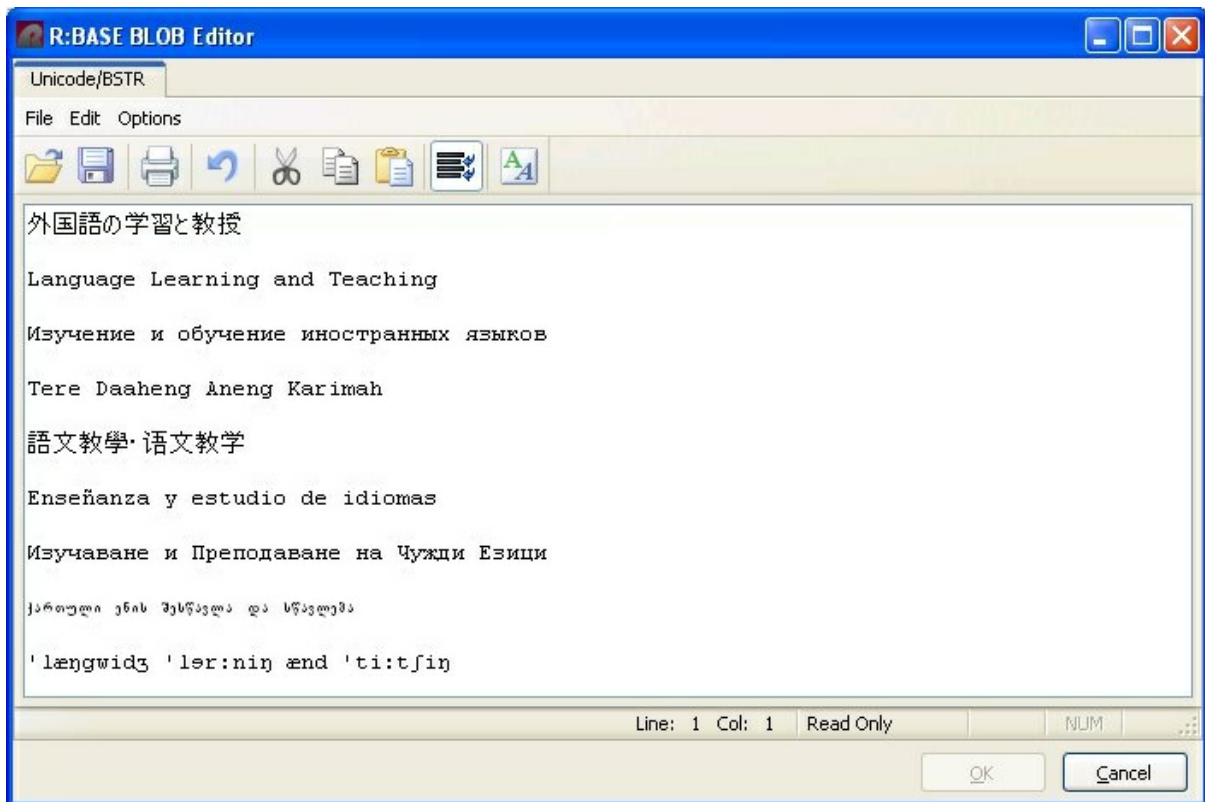
Button	Description
	Insert Column Left
	Insert Column Right
	Insert Row Above
	Insert Row Below
	Delete Column
	Delete Table
	Left Border
	Right Border
	Top Border
	Bottom Border
	All Borders
	No Borders

Button	Description
	Font Style
	Font Size
	B , <i>I</i> , <u>U</u> , S , <u>Ö</u>
	Left, Center, Right, and Full Justify
	Bullets
	Numbering
	Decrease Indent , Increase Indent



13.1.4 Unicode/BSTR

The "Unicode/BSTR" tab allows the ability to see or edit binary string data. This tab is specific to R:BASE eXtreme 9.1 (64) only.

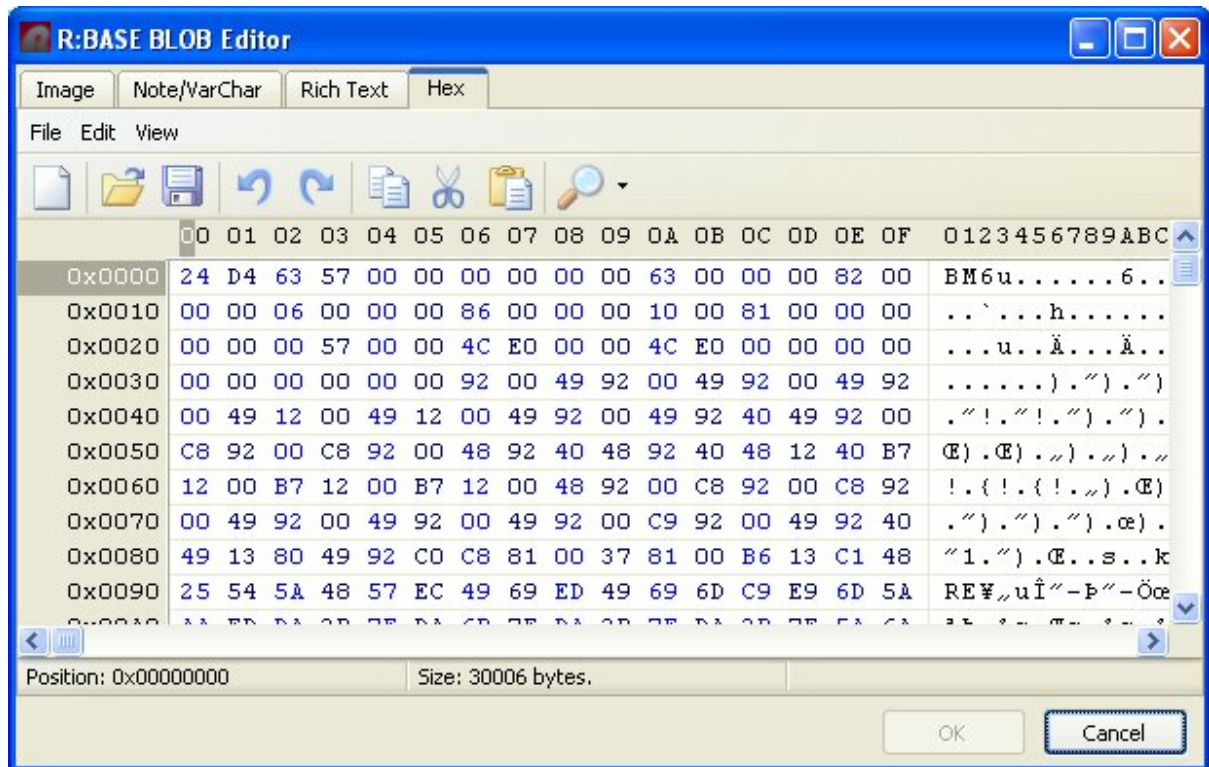


Toolbar










Button	Description
	Open
	Save
	Print
	Undo
	Cut
	Copy
	Paste
	Word Wrap
	Font...

13.1.5 Hex

The "Hex" tab allows the ability to see or edit the raw binary data.



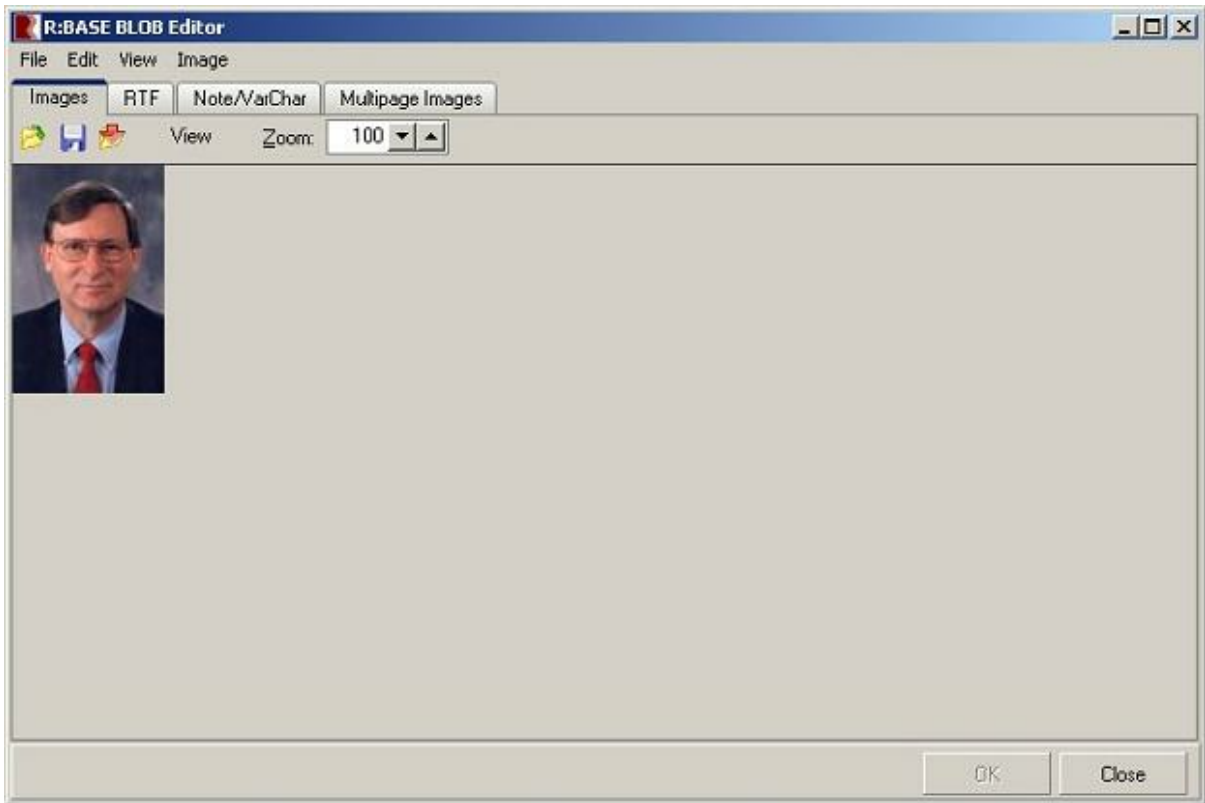
Toolbar

Button	Description
	New
	Open
	Save
	Undo
	Redo
	Copy
	Cut
	Paste
	View

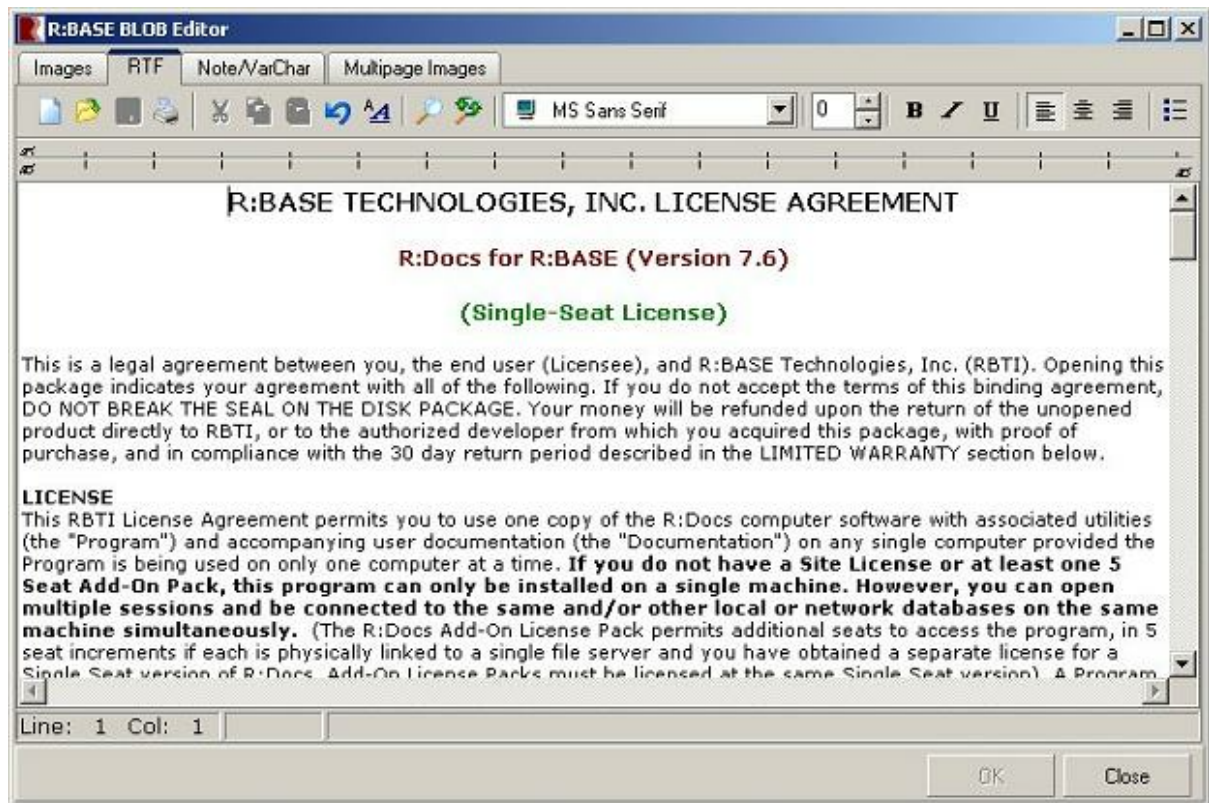
13.2 About the R:BASE 7.6/Turbo V-8 BLOB Editor

The enhanced R:BASE BLOB Editor includes four tab options to manage data appropriately:

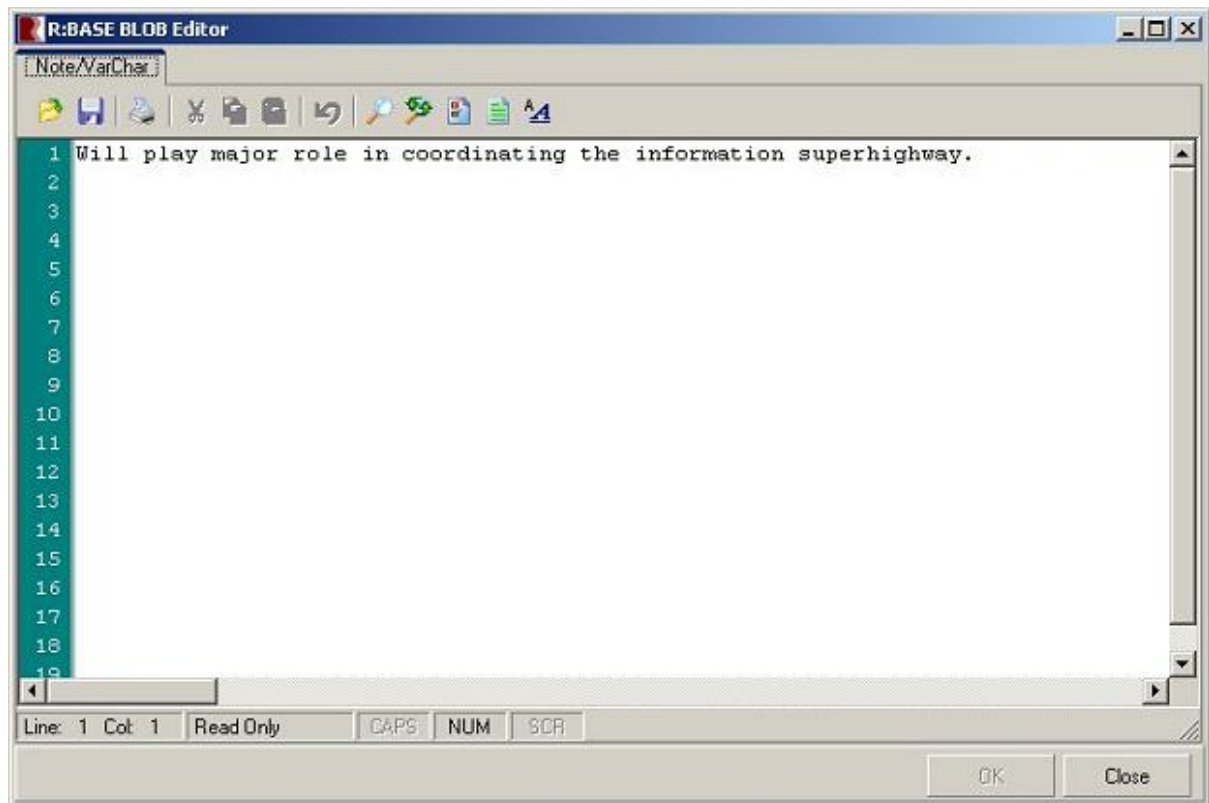
- **Images**



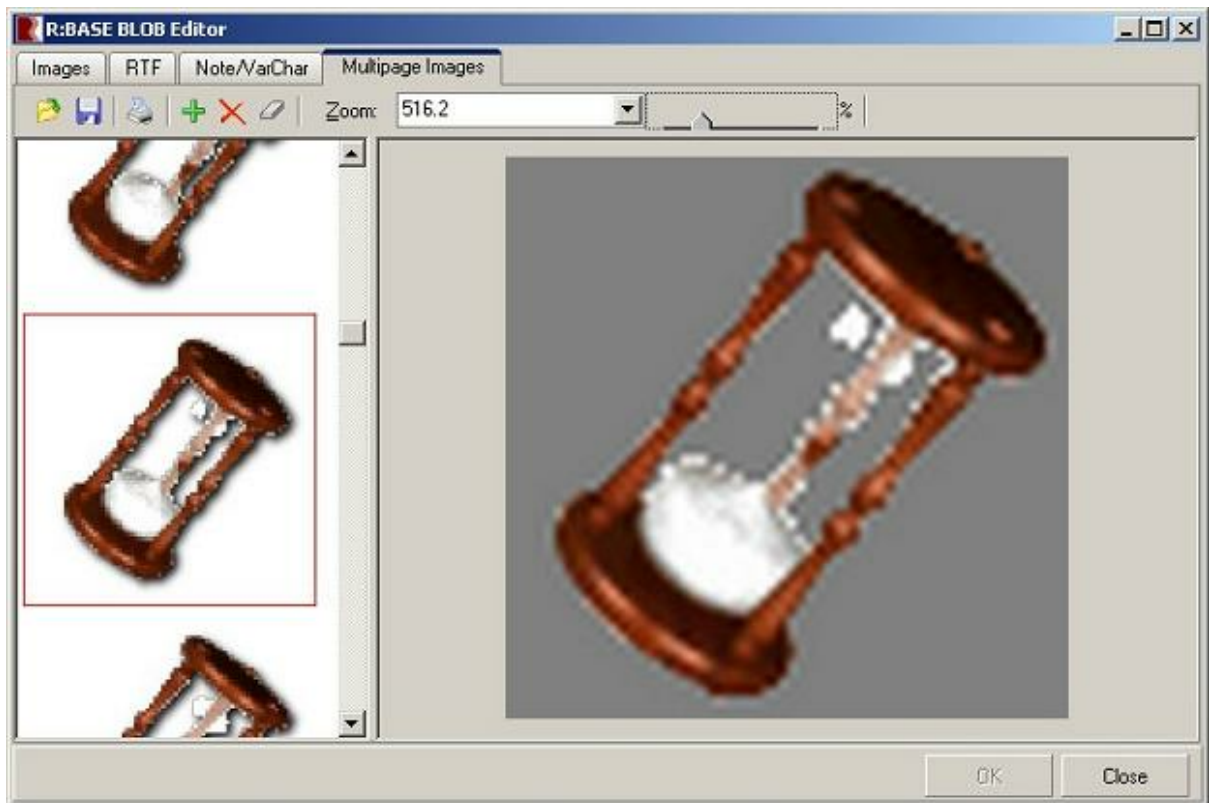
- RTF



- **Note/VarChar**



- **Multipage Images**



So, how is the appropriate "tab" of the R:BASE BLOB Editor brought up when double-clicking on the NOTE, VARCHAR, BITNOTE, or VARBIT data type columns in the Data Browser/DB Grid and Forms?

Here's the logic behind it:

1. When working with Data Browser/Editor and DB Grids;

Data Type	R:BASE BLOB Editor "Tab" Page
NOTE	Note/VarChar
VARCHAR	Images, RTF, Note/VarChar, Multipage Images
BITNOTE	Images, RTF, Note/VarChar, Multipage Images
VARBIT	Images, RTF, Note/VarChar, Multipage Images

For image types of DCX, TIFF and GIF, the default tab page is set to Multipage Images.

2. When working with Form Controls in Forms:

Form Control	R:BASE BLOB Editor "Tab" Page
DB Memo	Note/VarChar
DB Rich Edit	RTF
DB Image	Images, Multipage Images

For image types of DCX, TIFF and GIF, the default tab page is set to Multipage Images.

Supported Versions:

- R:BASE 7.6 (Build 7.6.2.31211 or higher) for Windows
- R:BASE Turbo (Build 7.6.2.31211 or higher) for Windows

13.3 Customizing the BLOB Editor

Did you know that now you can customize the caption and icon of R:BASE BLOB Editor?

One of the more exciting features in R:BASE for Windows is the ability to add, edit, delete, and display binary files-Binary Large Objects, or BLOBs. This term refers to binary data as opposed to ASCII data. The data types VARBIT and BITNOTE were added for storing binary files within an R:BASE database. In addition, the VARCHAR data type lets you store large ASCII data files (Large Objects, or LOBs). The data for VARBIT and VARCHAR data types is stored in the fourth R:BASE data file, DBName.RB4 or DBName.RX4.

In addition, you may also use R:BASE BLOB Editor to create a new or update an existing files, such as RTF, BMP, TXT, JPG, GIF, PNG, and more...

While deploying R:BASE applications with integrated features of R:BASE BLOB Editor, now you can customize the caption and icon. Here's how:

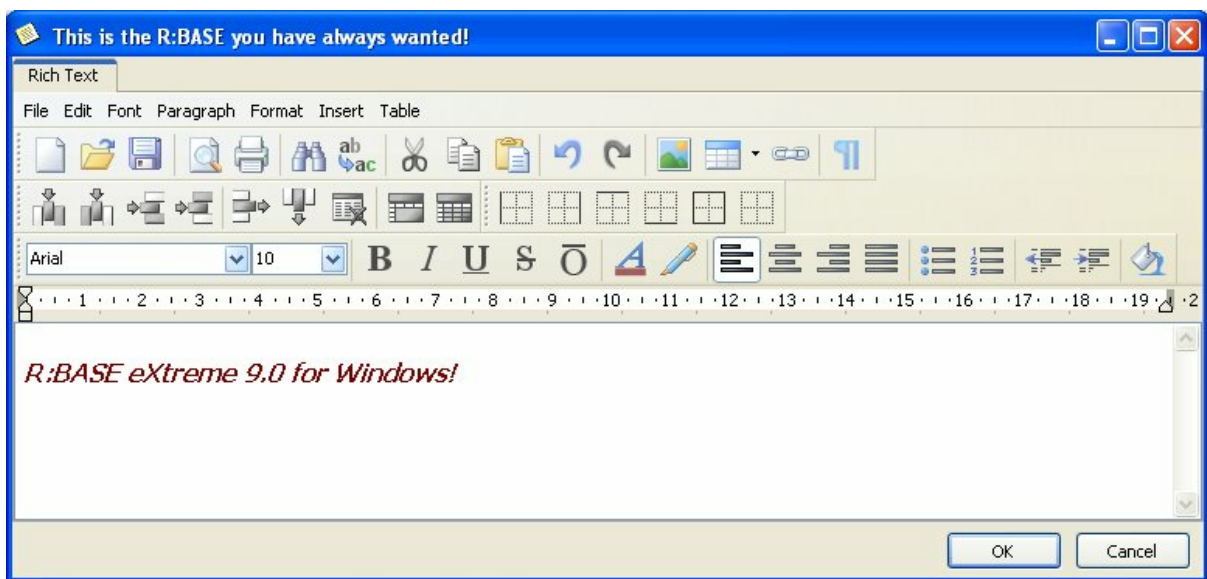
First, use the following PROPERTY commands to customize R:BASE BLOB Editor.

```
PROPERTY BLOB_EDITOR CAPTION ' This is the R:BASE you have always wanted!'
PROPERTY BLOB_EDITOR ICON 'IntoTheFuture.ico'
```

Then, use the following command to create a new Rich Text File with your favorite logo into a single table column.

```
RBBE NewRTFFile.RTF
```

Notice the customized caption and icon for R:BASE BLOB Editor.



Note: R:BASE 7.6 and Turbo V-8 use standard R:BASE BLOB Editor. R:BASE eXtreme 9.0 (32/64) include Enhanced R:BASE BLOB Editor as shown in the above illustration.

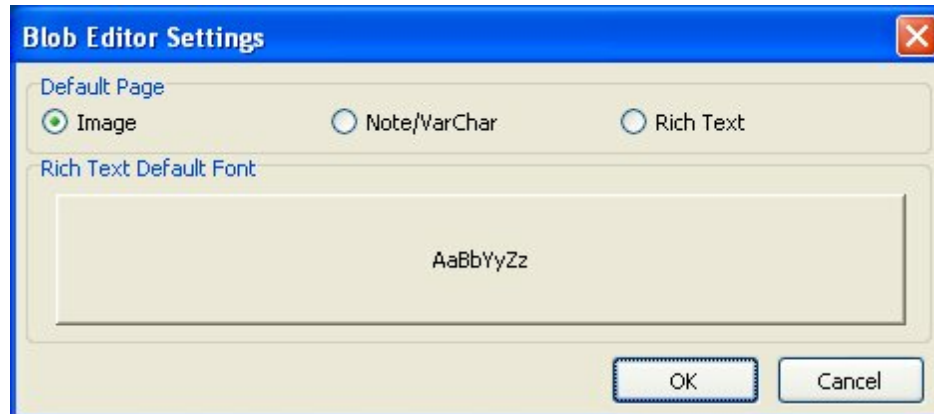
Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.7.30420 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.21.30420 or higher)
- R:BASE eXtreme 9.0 for Windows (Build: 9.0.1.10420 or higher)

13.4 Setting Rich Text Default Font for Blob Editor

Did you know that you can set the default font for Rich Text option of the R:BASE Blob Editor? Here's how:

01. Start R:BASE eXtreme
02. Select "Settings" > "Blob Editor Settings ..." from the main Menu Bar.



This is where you will define the default Font, Font Style, Size, Effects and Color for Rich Text.

Supported Versions:

- R:BASE eXtreme 9.0 (Build: 9.0.1.10624 or higher)

Part

XIV

14 Commands

14.1 Assigning Line Numbers using the SELECT Command

Did you know that you can assign the line numbers for the SELECT command?

Use the (CVAL('ROWCOUNT')) function to achieve that goal.

Here's how:

1. Start R:BASE
2. CONNECT ConComp
3. At the R> Prompt:

```
SELECT (INT(CVAL('ROWCOUNT'))) AS LineNo,Company=35, +
(CustCity+', '&CustState&CustZip)=35 AS CityStateZip FROM Customer
```

Notice the line counter!

4. If you would like to print that select statement output as PDF, use the following example:

```
SET VAR vLines = (INT(CVAL('LINES')))
SET LINES 0
OUTPUT CustomerList.PDF PDF
SELECT (INT(CVAL('ROWCOUNT'))) AS LineNo,Company=35, +
(CustCity+', '&CustState&CustZip)=35 AS CityStateZip FROM Customer
OUTPUT SCREEN
SET LINES .vLines
```

That will send the output as CustomerList.PDF using the "built-in" PDF capabilities of R:BASE OUTPUT command.

Use the LAUNCH CustomerList.PDF command to view the results.

14.2 Attaching Server Tables as TEMPORARY Tables

Did you know that now you can attach server tables as TEMPORARY tables?

Among so many enhancements and features in R:BASE 7.6 and R:BASE Turbo V-8, the traditional SATTACH command has been enhanced to include the option for attaching server tables as TEMPORARY.

Syntax:

```
SATTACH TEMPORARY tablename AS tablealias USING ...
```

The optional TEMPORARY parameter allows you to create a Temporary Table with the SATTACH command and all supported parameters. The temporary tables will disappear when the database is DISConnected.

Use this option to take the exact snapshot of the sever table to manage and analyze the data as you wish.

Note:

Any changes made to the temporary table will not be reflected upon the original SQL data source. The sole purpose of this enhancement is to let R:BASE attach server tables as TEMPORARY tables specific to that User/R:BASE session even when the database is connected with STATICDB ON.

14.3 Changing CASCADE Options

With prior versions/builds of R:BASE, if you have already added the CASCADE option to a table with a Primary Key (PK) that automatically executes the UPDATE and DELETE options, and if you wish to change the default option to UPDATE only, use the following command at the R> prompt:

```
ALTER TABLE <PKtablename> ADD CASCADE UPDATE
```

This will change the CASCADE option to UPDATE only.

If you wish to change the default option to DELETE only, use the following command at the R> prompt:

```
ALTER TABLE <PKtablename> ADD CASCADE DELETE
```

If you wish to change the default option to both, use the following command at the R> prompt:

```
ALTER TABLE <PKtablename> ADD CASCADE
```

And finally, if you wish to cancel the CASCADE option altogether, use the following command at the R> prompt:

```
ALTER TABLE <PKtablename> DROP CASCADE
```

You may also implement these options using the enhanced R:BASE Data Designer (RBDEFine).

14.4 Changing Report Margins Using the PRINT Command

Did you know that you can change the report margins dynamically using the enhanced PRINT command with the "margin" parameters?

Here's how:

Four additional PRINT OPTION parameters are now supported to change Left, Top, Right and Bottom margins of report.

Syntax:

```
PRINT reportname OPTION outputvalue|MARGIN_xxxx nnn
```

Where:

outputvalue is the parameter such as SCREEN, PRINTER, BMP, EMF, ETXT, GIF, HTML, JPG, PDF, RTF, TIFF, TXT, WMF, XHTML, or XLS.

MARGIN_xxxx are the parameters for:

- MARGIN_LEFT
- MARGIN_TOP
- MARGIN_RIGHT
- MARGIN_BOTTOM

nnn is the REAL data type value; such as 0.5, 1.0, or 0.75

MARGIN_LEFT - specifies the horizontal position on the page where printing should begin. All report component positions are relative to the margin. In other words, if the MARGIN_LEFT parameter is set to 0.25 inches and you place a report component in a band and set the component's "left" parameter to 0, then that component will print 0.25 inches from the edge of page (or at the left margin).

MARGIN_TOP - specifies the vertical position on the page where printing should begin. All report component positions are relative to the margin. In other words, if the MARGIN_TOP parameter is set to 0.25 inches and you place a report component in a band and set the component's "top" parameter to 0, then that component will print 0.25 inches from the edge of page (or at the top margin).

MARGIN_RIGHT specifies the horizontal position on the page where printing should stop. All report component positions are relative to the margin.

MARGIN_BOTTOM - specifies the vertical position on the page where printing should stop. All report component positions are relative to the margin.

```
-- Example 01:
PRINT CustomerList OPTION PRINTER|MARGIN_LEFT 1.25

-- Example 02:
PRINT CustomerList OPTION PRINTER|MARGIN_TOP 0.50

-- Example 03:
PRINT CustomerList OPTION PRINTER|MARGIN_RIGHT 0.75

-- Example 04:
PRINT CustomerList OPTION PRINTER|MARGIN_BOTTOM 0.50

-- Example 05:
PRINT CustomerList OPTION PRINTER +
|MARGIN_LEFT 1.25 +
|MARGIN_TOP 0.50 +
|MARGIN_RIGHT 0.75 +
|MARGIN_BOTTOM 0.50
```

Supported Versions:

- R:BASE 7.6 (Build 7.6.2.31224 or higher) for Windows
- R:BASE (C/S:I) 7.6 (Build 7.6.2.31224 or higher) for Windows
- R:BASE Turbo (Build 7.6.2.31224 or higher) for Windows

14.5 Changing the Caption of Plugin Buttons

Did you know that you can customize the default captions of the LoadFileNamePlusPlus.RBL Plugin buttons to suit your application?

Here's how:

Use the following additional options:

```
OK_BUTTON_CAPTION <value> - to change "OK" button caption
CANCEL_BUTTON_CAPTION <value> - to change "CANCEL" button caption.
```

Background:

The LoadFileNamePlusPlus.rbl Plugin is used to load a file name into a variable by displaying a dialog window for the user to browse the operating system.

The LoadFileNamePlusPlus.rbl Plugin allows all the same parameters from previous "LoadFileName" Plugins, only this version return a list of variable values after a file or files are selected. It does not appear in the R:BASE for Windows Plugins Menu.

Syntax:

```
PLUGINS LoadFileNamePlusPlus.rbl VarName|<options>
Options:
FULLPATH (ON/OFF)
```

```

TITLE <value>
VIEW_MODE <value>
THUMBNAILS
TILES
ICONS (Default)
LIST
DETAILS
FILTER <value>
INITIAL_DIR <value>
MULTISELECT (ON/OFF)
SHOW_HIDDEN (ON/OFF)
NO_LONG_NAMES (ON/OFF)
NO_NETWORK_BUTTON (ON/OFF)
HIDE_READ_ONLY (ON/OFF)
NO_DEREFERENCE_LINKS (ON/OFF)
DONT_ADD_TO_RECENT (ON/OFF)
ENABLE_SIZING (ON/OFF)
OLD_STYLE (ON/OFF)
NO_VALIDATE (ON/OFF)
OK_BUTTON_CAPTION <value> - to change "OK" button caption
CANCEL_BUTTON_CAPTION <value> - to change "CANCEL" button caption

```

Where:

VarName is the variable name to return text results

Returned Variables:

```

vLFNFileCount = 1 INTEGER
vLFNFileName1 = C:\RBTI\RBG75\Samples\RRBYW10\CustList.jpg TEXT
vLFNFilePath1 = C:\RBTI\RBG75\Samples\RRBYW10\ TEXT
vLFNFileNameS1 = CustList.jpg TEXT
vLFNFileExt1 = .jpg TEXT
vLFNFileDT1 = 12/14/2006 4:15:00 PM TEXT
vLFNFileSize1 = 5018 INTEGER

```

Notes:

Each parameter must be separated by the pipe "|" symbol. A value of '[Esc]' will be returned if the [Cancel] button or Close Window [x] option is clicked on the file selection dialog.

The LoadFileNamePlusPlus.rbl Plugin is included with exclusive collection of R:BASE Plugin Power Pack.

14.6 Converting 6.5++ Databases to Turbo V-8

The TURBO command in R:BASE Turbo V-8 is intended to UPGRADE your existing R:BASE 7.x database to Turbo V-8, including all R:BASE 7.x Forms, Labels, Layouts and Reports.

However, if you need to jump directly from 6.5++ for Windows to R:BASE Turbo V-8 for Windows, you may use the alternative method of building an R:BASE Turbo V-8 database from the R:BASE 6.5++ structure and data using the traditional UNLOAD ALL command.

Here' how:

1. Start R:BASE 6.5++ for Windows and connect to the database
2. Check the IDQUOTE settings of connected database:

At the R> Prompt:

```
SHOW CHARACTERS
```

Notice the last parameter, IDQUOTES

If IDQUOTES is set to NULL, you'll need to change NULL to the appropriate character, such as ` (reversed quote) as following:

```
SET IDQUOTES=`
```

3. Unload the entire database:

At the R> Prompt:

```
SET NULL -0-  
OUTPUT filename.ALL  
UNLOAD ALL  
OUTPUT SCREEN
```

This process will create two files (filename.ALL and filename.LOB)

4. Disconnect the database:

At the R> Prompt:

```
DISCONNECT
```

5. Now Start R:BASE Turbo V-8 (default: C:\RBTI\RBG8\RBG8.exe)

Switch the default directory to the folder with filename.ALL and filename.LOB files.

At the R> prompt of R:BASE Turbo V-8:

```
RUN filename.ALL
```

This step will build a clean database to be used exclusively by R:BASE V-8 Turbo.

New database files will have the following extensions:

```
dbname.RX1  
dbname.RX2  
dbname.RX3  
dbname.RX4
```

X = eXtended

The LIST DATABASE command at the R> prompt will only list Turbo V-8 database(s) in that folder.

All R:BASE 6.5++ for Windows Forms, Reports, and Labels can be converted to Turbo V-8 for Windows using the "Convert" option from appropriate module of Database Explorer.

Once the database is converted, it can only be connected using R:BASE V-8 Turbo.

14.7 Converting RTF to Plain TEXT, NOTE or VARCHAR

Did you know that you can convert Rich Text Format (RTF) data to a plain TEXT, NOTE or VARCHAR data using the RTFtoTEXT.RBL Plugin?

Syntax: (Four Different Scenarios)

```
-- (01.) When Input/Output Data is a VARIABLE
PLUGIN RRTFtoTXT.RBL vResult +
  |INPUT_TYPE VARIABLE +
  |INPUT_VARIABLE inputvarname +
  |OUTPUT_TYPE VARIABLE +
  |OUTPUT_VARIABLE outputvarname +
  |OUTPUT_DATA_TYPE value
```

WHERE:

- vResult is the resulting message value, such as, "OK" or the actual "-ERROR- message"
- INPUT_VARIABLE inputvarname is the input RTF data as variable
- OUTPUT_VARIABLE outputvalue is the resulting output variable name with converted data
- OUTPUT_DATA_TYPE value is the data type (TEXT, NOTE, or VARCHAR)

```
-- (02.) When Input/Output Data is an external FILE
PLUGIN RRTFtoTXT.RBL vResult +
  |INPUT_TYPE FILE +
  |INPUT_FILE inputfilename.rtf +
  |OUTPUT_TYPE FILE +
  |OUTPUT_FILE outputfile.txt +
  |OUTPUT_DATA_TYPE value
```

WHERE:

- vResult is the resulting message value, such as, "OK" or the actual "-ERROR- message"
- INPUT_FILE inputfilename.rtf is the input RTF file name
- OUTPUT_FILE outputfilename.txt is the resulting output file with converted data
- OUTPUT_DATA_TYPE value is the data type (TEXT, NOTE, or VARCHAR)

```
-- (03.) When Input is a VARIABLE and Output is an external FILE
PLUGIN RRTFtoTXT.RBL vResult +
  |INPUT_TYPE VARIABLE +
  |INPUT_VARIABLE inputvarname +
  |OUTPUT_TYPE FILE +
  |OUTPUT_FILE outputfilename.txt +
  |OUTPUT_DATA_TYPE value
```

WHERE:

- vResult is the resulting message value, such as, "OK" or the actual "-ERROR- message"
- INPUT_VARIABLE inputvarname is the input RTF data as variable
- OUTPUT_FILE outputfilename.txt is the resulting output file with converted data
- OUTPUT_DATA_TYPE value is the data type (TEXT, NOTE, or VARCHAR)

```
-- (04.) When Input is a an external FILE and Output is a VARIABLE
PLUGIN RRTFtoTXT.RBL vResult +
  |INPUT_TYPE FILE +
  |INPUT_FILE inputfilename.rtf +
  |OUTPUT_TYPE VARIABLE +
  |OUTPUT_VARIABLE outputvarname +
  |OUTPUT_DATA_TYPE value
```

WHERE:

- vResult is the resulting message value, such as, "OK" or the actual "-ERROR- message"
- INPUT_FILE inputfilename.rtf is the input RTF file name
- OUTPUT_VARIABLE outputvarname is the resulting output variable name with converted data
- OUTPUT_DATA_TYPE value is the data type (TEXT, NOTE, or VARCHAR)

Examples:

```

-- ConvertingRTF_to_TEXT.RMD
-- Author: A. Razzak Memon
-- Date Created: January 16, 2007
-- Converting _NOTE_VARCHAR.RMD
-- To be used with R:BASE 7.6 for Windows
-- Required Plugin:
-- RRTFtoTXT76.RBL in C:\RBTI\RBG76 or application .EXE folder
IF (CVAL('DATABASE')) <> 'RTFtoTXT' OR (CVAL('DATABASE')) IS NULL THEN
    CONNECT RTFtoTXT IDENTIFIED BY NONE
ENDIF
LABEL Start
CLS
CLEAR VARIABLES iv%,vRecordID,vRTFData,vTextData,vNoteData, +
    vVarCharData,vResult
SET VARIABLE vRecordID INTEGER = 2
SET VARIABLE vRTFData VARCHAR = NULL
SET VARIABLE vTextData TEXT = NULL
SET VARIABLE vNoteData NOTE = NULL
SET VARIABLE vVarCharData VARCHAR = NULL
SET VARIABLE vResult TEXT = NULL
SELECT RecordID,RTFData INTO +
    vRecordID INDICATOR ivRecordID, +
    vRTFData INDICATOR ivRTFData +
    FROM RTFData WHERE RecordID = .vRecordID

-- Converting RTF Data to TEXT
PLUGIN RRTFtoTXT76.RBL vResult +
    |INPUT_TYPE VARIABLE +
    |INPUT_VARIABLE vRTFData +
    |OUTPUT_TYPE VARIABLE +
    |OUTPUT_VARIABLE vTextData +
    |OUTPUT_DATA_TYPE TEXT
IF vResult <> 'OK' THEN
    PAUSE 2 USING .vResult ICON ERROR
ELSE
    INSERT INTO TextData VALUES (.vRecordID,.vTextData)
ENDIF

-- Converting RTF Data to NOTE
PLUGIN RRTFtoTXT76.RBL vResult +
    |INPUT_TYPE VARIABLE +
    |INPUT_VARIABLE vRTFData +
    |OUTPUT_TYPE VARIABLE +
    |OUTPUT_VARIABLE vNoteData +
    |OUTPUT_DATA_TYPE NOTE
IF vResult <> 'OK' THEN
    PAUSE 2 USING .vResult ICON ERROR
ELSE
    INSERT INTO NoteData VALUES (.vRecordID,.vNoteData)
ENDIF

-- Converting RTF Data to VARCHAR
PLUGIN RRTFtoTXT76.RBL vResult +

```

```

| INPUT_TYPE VARIABLE +
| INPUT_VARIABLE vRTFData +
| OUTPUT_TYPE VARIABLE +
| OUTPUT_VARIABLE vVarCharData +
| OUTPUT_DATA_TYPE VARCHAR
IF vResult <> 'OK' THEN
  PAUSE 2 USING .vResult ICON ERROR
ELSE
  INSERT INTO VarCharData VALUES (.vRecordID,.vVarCharData)
ENDIF
LABEL Done
CLEAR VARIABLES iv%,vRecordID,vRTFData,vTextData,vNoteData, +
  vVarCharData,vResult
RETURN

```

A sample application is also available at:
<http://www.razzak.com/sampleapplications/>

14.8 Clearing Stubborn Table Locks

In a multi-user environment, have you ever been in a situation where a table is left locked and you have no way to clear the lock(s), even knowing that there is no one out there using the same database?

Well, now you have the option to clear those stubborn table locks by simply using the *new* CLEAR TABLE LOCKS command.

Here's how:

```

DISCONNECT
SET MULTI OFF
CONNECT dbname
CLEAR TABLE LOCKS

```

This will CLEAR all stubborn table locks.

14.9 Creating/Editing RTF Files Outside the Database

Did you know that you can create and/or edit RTF file(s) outside the R:BASE 7.x database?

Use the new RBBEDIT command at the R> Prompt, in a Command File or in an EEP.

Example:

```
RBBEDIT ThePowerOfRBASE.RTF
```

or

```
RBBE ThePowerOfRB.RTF
```

14.10 Customizing DIALOG POPUP Colors

Did you know that you can customize the DIALOG POPUP colors to match your custom application theme?

Here's how:

Example 01:

```
-- Start
-- DIALOG_POPUP_CustomColors_Razzmatazz.RMD
-- Supported Versions: R:BASE 7.6 and Turbo V-8 for Windows
-- Theme: Razzmatazz
IF (CVAL('DATABASE')) <> 'RRBYW14' OR (CVAL('DATABASE')) IS NULL THEN
  CONNECT RRBYW14 IDENTIFIED BY NONE
ENDIF
CLEAR VARIABLES vCustIDTxt,vCustID,vEndKey
SET VAR vCustIDTxt TEXT = NULL
SET VAR vCustID INTEGER = NULL
SET VAR vEndKey TEXT = NULL
CLS
DIALOG 'Enter a Customer ID' vCustIDTxt=8 vEndkey 1 +
  CAPTION 'DIALOG Custom Colors' +
  OPTION THEMENAME Razzmatazz +
  |POPUP_ENABLED TRUE +
  |POPUP_DIALOG_TYPE LOOKUP +
  |DIALOG_EDIT_HINT Double-click for a List +
  |POPUP_CAPTION CustID Selection +
  |POPUP_TITLE_TEXT Select a Customer +
  |POPUP_TABLE Customer +
  |POPUP_SELECT Company +
  |POPUP_WHERE ORDER BY Company +
  |POPUP_RETURN_COLUMN CustID +
  |POPUP_WINDOW_BACK_COLOR [R218,G228,B246] +
  |POPUP_LIST_BACK_COLOR [R218,G228,B246] +
  |POPUP_LIST_FONT_COLOR NAVY +
  |POPUP_LIST_FONT_NAME ARIAL +
  |POPUP_LIST_FONT_SIZE 10 +
  |POPUP_LIST_FONT_BOLD ON +
  |POPUP_TITLE_BACK_COLOR [R218,G228,B246] +
  |POPUP_TITLE_FONT_COLOR NAVY +
  |POPUP_TITLE_FONT_NAME ARIAL +
  |POPUP_TITLE_FONT_SIZE 10 +
  |POPUP_TITLE_FONT_BOLD ON +
  |POPUP_LINES 16
-- Do what you have to do here ...
RETURN
-- End
```

Example 02:

```
-- Start
-- DIALOG_POPUP_CustomColors_RBASERocks.RMD
-- Supported Versions: R:BASE 7.6 and Turbo V-8 for Windows
-- Theme: R:BASE Rocks!
IF (CVAL('DATABASE')) <> 'RRBYW14' OR (CVAL('DATABASE')) IS NULL THEN
  CONNECT RRBYW14 IDENTIFIED BY NONE
ENDIF
CLEAR VARIABLES vCustIDTxt,vCustID,vEndKey
SET VAR vCustIDTxt TEXT = NULL
SET VAR vCustID INTEGER = NULL
SET VAR vEndKey TEXT = NULL
```

```

CLS
DIALOG 'Enter a Customer ID' vCustIDTxt=8 vEndkey 1 +
  CAPTION 'DIALOG Custom Colors' +
  OPTION THEMENAME R:BASE Rocks! +
  |POPUP_ENABLED TRUE +
  |POPUP_DIALOG_TYPE LOOKUP +
  |DIALOG_EDIT_HINT Double-click for a List +
  |POPUP_CAPTION CustID Selection +
  |POPUP_TITLE_TEXT Select a Customer +
  |POPUP_TABLE Customer +
  |POPUP_SELECT Company +
  |POPUP_WHERE ORDER BY Company +
  |POPUP_RETURN_COLUMN CustID +
  |POPUP_WINDOW_BACK_COLOR 2708091 +
  |POPUP_LIST_BACK_COLOR 2708091 +
  |POPUP_LIST_FONT_COLOR WHITE +
  |POPUP_LIST_FONT_NAME ARIAL +
  |POPUP_LIST_FONT_SIZE 10 +
  |POPUP_LIST_FONT_BOLD ON +
  |POPUP_TITLE_BACK_COLOR 2708091 +
  |POPUP_TITLE_FONT_COLOR WHITE +
  |POPUP_TITLE_FONT_NAME ARIAL +
  |POPUP_TITLE_FONT_SIZE 10 +
  |POPUP_TITLE_FONT_BOLD ON +
  |POPUP_LINES 16
-- Do what you have to do here ...
RETURN
-- End

```

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.1.30806 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.1.30806 or higher)
- R:BASE Turbo V-8 (Build: 8.0.15.30806 or higher)

14.11 Customizing the PRNSETUP Dialog

Did you know that you can customize the PRNSETUP box, and use themes to match your Form, Application, #WHERE, CHOOSE, DIALOG and PAUSE windows?

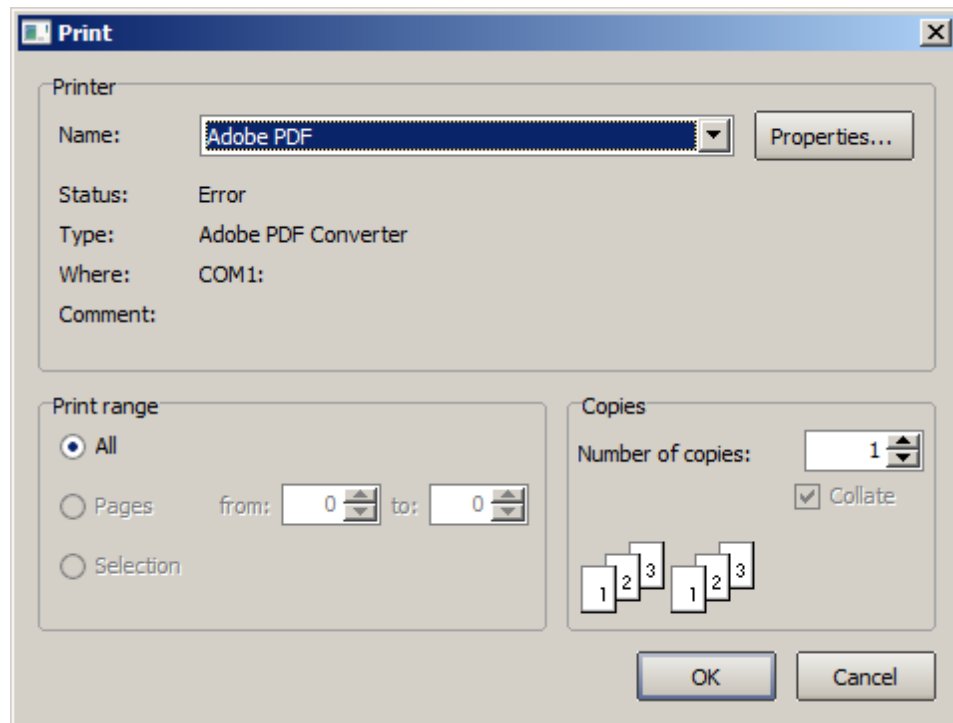
Try the following examples which demonstrate the use of PRNSETUP command to match your Form, Application, #WHERE, CHOOSE, DIALOG and PAUSE themes.

Example 01:

```

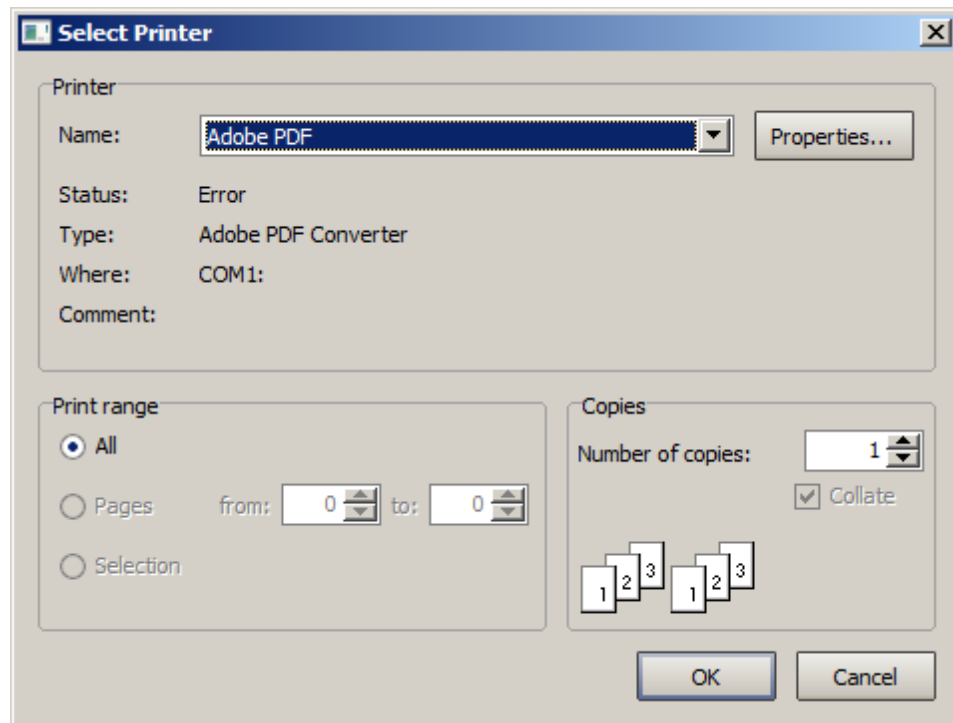
--(Changing Printer and then showing the window)
PRNSETUP 'Adobe PDF'
PRNSETUP

```



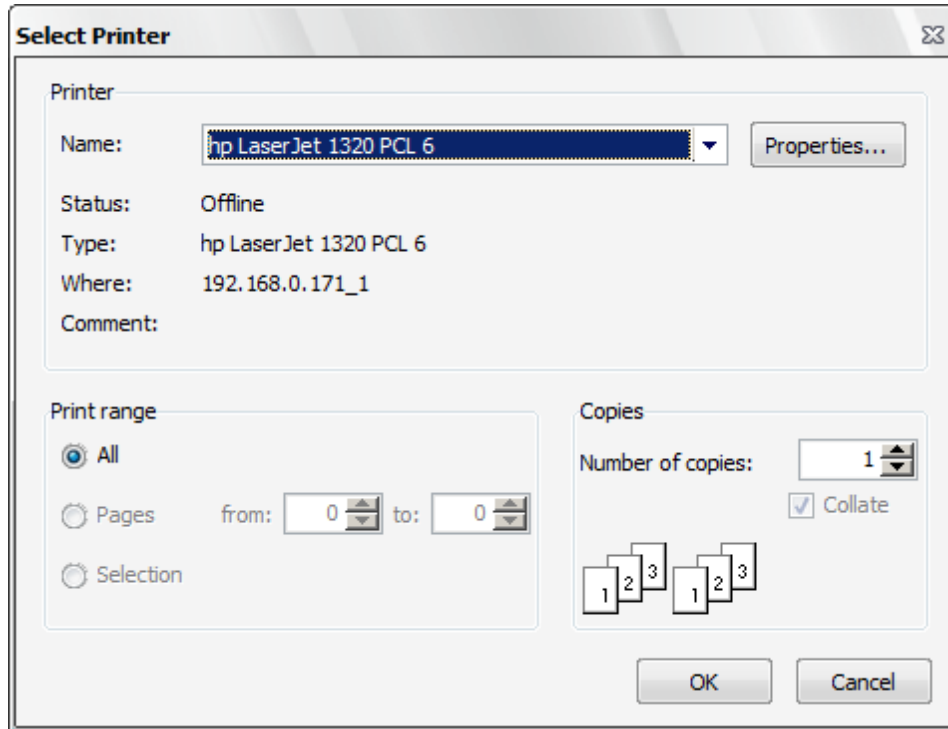
Example 02:

```
-- (Customizing Caption)
PRNSETUP OPTION CAPTION Select Printer
```



Example 03:

```
-- (Customizing Caption with R:BASE eXtreme 9.1 Theme)
PRNSETUP OPTION CAPTION Select Printer|THEMENAME Vista CG
```



Notes:

- 01. If you use a printer name that does not exist there will be no error and the current printer will not be changed.
- 02. Use RBTI_PRNSETUP variable to capture user action. When using the PRNSETUP window, clicking on [OK] button will return the value of RBTI_PRNSETUP as "OK". When using the PRNSETUP window, clicking on [Cancel] button will return the value of RBTI_PRNSETUP as "CANCEL".
- 03. Use PRNSETUP INFO command at the R> prompt for detailed info on your currently selected printer.
- 04. For complete details, PRNSETUP parameters and OPTIONS: **HELP PRNSETUP**

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.3.10428 or higher)

14.12 Defining Font Name/Size with OUTPUT PRINTER

Did you know that you can define the font name and size when using the OUTPUT PRINTER command?

R:BASE 7.x, Turbo V-8, or R:BASE eXtreme (v9.0) allows you to define font name and font size when using the OUTPUT PRINTER command at the R> prompt, in a command file or in an EEP used in Forms, Reports and Labels.

Example 01

```
CONNECT RRBYW14
SET LINES 0
SET WIDTH 120
SET NULL ' '
OUTPUT PRINTER FONTNAME COURIER FontSize 9
```

```

SELECT +
Company=38 AS `Company Name`, +
CustAddress=32 AS `Address`, +
(CustCity+', '&CustState&CustZip)=30 AS `City, State and Zip` +
FROM Customer ORDER BY Company
OUTPUT SCREEN
SET LINES 20
SET WIDTH 79

```

Example 02

```

CONNECT RRBYW14
SET LINES 0
SET WIDTH 120
SET NULL ' '
OUTPUT PRINTER FONTNAME COURIER FontSize 8
SELECT +
Company=38 AS `Company Name`, +
CustAddress=32 AS `Address`, +
(CustCity+', '&CustState&CustZip)=30 AS `City, State and Zip`, +
CustPhone=14 AS `Phone Number` +
FROM Customer ORDER BY Company
OUTPUT SCREEN
SET LINES 20
SET WIDTH 70

```

Supported Versions:

- R:BASE 7.6 for Windows (Build:7.6.5.31125 or higher)
- R:BASE C/S:I 7.6 for Windows (Build:7.6.5.31125 or higher)
- R:BASE Turbo V-8 for Windows (Build:8.0.19.31125 or higher)
- R:BASE eXtreme for Windows (Build:9.0.1.31125 or higher)

14.13 Differentiating Between Regular and Temporary Tables/Views

RBG7 Beta Update 36 includes the new feature of differentiating between Regular and Temporary Tables/Views when using the LIST or LIST TABLES command at the R> prompt.

To safely indicate which tables are temporary tables in the LIST or LIST TABLES command, you will now see a "(T)" in front of the table name.

Example:

1. Launch R:BASE
2. CONNECT Concomp
3. Switch to R> Prompt and create a TEMPorary table as following:

```

PROJECT TEMP tCustomer FROM Customer USING ALL
LIST TABLES

```

You will notice the **(T)** in front of the tCustomer table.

4. Now create a TEMPorary VIEW as following:

```

CREATE TEMP VIEW `tYTDInvoiceTotal` +
  (CustID, YTDInvoiceTotal) AS +
  SELECT CustID,(SUM(InvoiceTotal)) FROM TransMaster +
  GROUP BY CustID
COMMENT ON VIEW `tYTDInvoiceTotal` IS +
  'Year-To-Date Invoice Total by Customer'
LIST

```

You will notice **(T)** in front of the tYTDInvoiceTotal view.

Note: All TEMPorary Tables/View created during individual R:BASE session disappear when the database is DISConnected.

14.14 Displaying Longer Table/Column Names in Turbo V-8

Using R:BASE Turbo V-8 for Windows, if you have a table or column name that is more than the traditional 18 characters wide, and if you wish to display a list of TABLES or COLUMNS, use the NAMEWIDTH setting.

The default setting for this exclusive NAMEWIDTH option in R:BASE Turbo V-8 is set to 18. However, you can change the name width to display table or columns names that are more than 18 characters to list them accordingly.

Syntax:

```
SET NAMEWIDTH nnn
```

Example:

```

SET WIDTH 120
SET NAMEWIDTH 40
SET LINES 0
LIST COLUMNS

```

14.15 Encrypting an UNLOADED DATA File

Traditionally, the UNLOAD command is used to unload the structure, data, structure with data, forms, labels or reports to a specified OUTPUT file. Depending on the option used, the UNLOAD command also creates a LOB file with matching output file name.

Typically, you can view the entire ASCII unloaded data using text editor. However, it becomes critical when the unloaded file contains sensitive data, including owner and user passwords, etc.

Did you know that you can encrypt the entire file using the new built-in 512-bit ENCRYPT option in R:BASE 7.6, C/S:I 7.6 and Turbo V-8 for Windows?

Example 01:

```

CONNECT RRBYW14
OUTPUT rrbyw14.str ENCRYPT mypassword
UNLOAD STRUCTURE
OUTPUT SCREEN

```

This will create an encrypted password-protected structure file (rrbyw14.str).

Example 02:

```
CONNECT RRBYW14
OUTPUT rrbyw14.all ENCRYPT mypassword
UNLOAD ALL
OUTPUT SCREEN
```

This will create an encrypted password-protected data rrbyw14.all and rrbyw14.lob file.

Example 03:

```
CONNECT RRBYW14
OUTPUT employee.asc ENCRYPT mypassword
UNLOAD DATA FOR Employee USING +
EmpID,EmpFName,EmpLName,EmpAddress,EmpAddress2,EmpCity,EmpState, +
EmpZip,EmpPhone,HireDate,EntryDate,EMailAddress AS ASCII
OUTPUT SCREEN
```

This will create an encrypted password-protected ascii employee.asc file.

While using the built-in REdit or external R:BASE Editor 7.6, you may also create/edit any external command file/EEP and add the encryption by using the "Add Encryption" when saving or using the "Save As" option.

An output file created with "ENCRYPT yourpassword" option can only be opened using any version of R:BASE for Windows (listed below) or R:BASE Editor 7.6 and higher.

Attempting to edit or run the encrypted file will prompt you to enter the appropriate password.

Supported Versions:

- R:BASE 7.6 and C/S:I 7.6 for Windows
- R:BASE Turbo V-8 for Windows

14.16 Enhanced DIALOG Command

Did you know that you can include end-user "hints", apply a "theme", and use "lookup" options for pop-up menus when using the DIALOG command? These are just a few new enhancements in the DIALOG command.

When you double-click on the DIALOG edit box, not only can you bring up the customized lookup pop-up menus, but when you hover your mouse cursor over the dialog edit box, the hint can be displayed.

Here's how:

1. DIALOG_EDIT_HINT value, specifies the hint.
2. POPUP_ENABLED (ON/OFF), enables the option of bringing up a custom pop-up menu when using the double-click.
3. POPUP_DIALOG_TYPE value, specifies the Pop-up type when double-clicking on the DIALOG edit box.

Example: (Dialog with Hint and Pop-ups as Lookup)

```
-- Dialog_With_Hint_And_Popups_As_Lookup.RMD
-- Popup Dialog Type: LOOKUP
-- Along with DIALOG_EDIT_HINT value ...
CONNECT RRBYW10
CLEAR VAR vCaption,vResponse,vEndKey,vCustID,vRows, +
ivRows,vPauseMessage
SET VAR vCaption TEXT = 'DIALOG with Hint and Pop-up Menus'
SET VAR vResponse TEXT = NULL
```

```

SET VAR vEndkey TEXT = NULL
SET VAR vCustID INTEGER = NULL
SET VAR vRows INTEGER = NULL
SET VAR vPauseMessage TEXT = NULL
LABEL GetCustID
CLS
DIALOG 'Enter Customer ID' vResponse=33 vEndKey 1 +
  CAPTION .vCaption +
  ICON APP +
  OPTION DIALOG_EDIT_HINT Double-Click for List of Customers +
  |POPUP_ENABLED TRUE +
  |POPUP_DIALOG_TYPE LOOKUP +
  |POPUP_TITLE_FONT_NAME VERDANA +
  |POPUP_TITLE_FONT_SIZE 9 +
  |POPUP_TITLE_FONT_BOLD TRUE +
  |POPUP_TITLE_FONT_COLOR WHITE +
  |POPUP_TITLE_BACK_COLOR 5142690 +
  |POPUP_TITLE_TEXT Select Customer +
  |POPUP_LIST_FONT_COLOR WHITE +
  |POPUP_LIST_BACK_COLOR 5142690 +
  |POPUP_CAPTION List of Customers +
  |POPUP_TABLE Customer +
  |POPUP_SELECT Company,CustCity+', '&CustState&CustZip +
  |POPUP_RETURN_COLUMN CustID +
  |POPUP_WHERE ORDER BY Company +
  |POPUP_SHOW_LINES TRUE +
  |POPUP_RETURN_TYPE COLUMN +
  |POPUP_LINES 20 +
  |POPUP_DISTINCT TRUE +
  |THEMENAME R:BASE Rocks!
IF vEndKey = '[Esc]' THEN
  GOTO Done
ENDIF
IF vResponse IS NULL THEN
  PAUSE 2 USING 'Missing Customer ID!' +
  CAPTION .vCaption ICON STOP +
  BUTTON 'Click here to enter Customer ID again ...' +
  OPTION BACK_COLOR WHITE +
  |MESSAGE_COLOR WHITE +
  |MESSAGE_FONT_NAME Verdana +
  |MESSAGE_FONT_COLOR RED +
  |MESSAGE_FONT_SIZE 9 +
  |MESSAGE_FONT_BOLD ON +
  |MESSAGE_FONT_ITALIC OFF +
  |MESSAGE_FONT_STRIKEOUT OFF +
  |BUTTON_COLOR WHITE +
  |BUTTON_FONT_COLOR GREEN
  GOTO GetCustID
ENDIF
SET VAR vCustID = (INT(.vResponse))
CLS
SELECT COUNT(*) INTO vRows INDIC ivRows FROM +
  Customer WHERE CustID = .vCustID

```

```

IF vRows > 0 THEN
  SET VAR vFormMode = 'EDIT'
EDIT USING Customers WHERE CustID = .vCustID
ENDIF
SET VAR vResponse = NULL
SET VAR vCustID = NULL
GOTO GetCustID
LABEL Done
CLEAR VAR vCaption,vResponse,vEndKey,vCustID,vRows, +
  ivRows,vPauseMessage
RETURN

```

Customize or modify above code to meet your needs.

For more details, options and examples, please refer to:

From The Edge: <http://www.razzak.com/fte>
 Topic: All About DIALOG Command

14.17 Finding the Row Size using the RRowSize.RBL Plugin

Here's how to find Row Size using RRowSize.RBL Plugin.

You may integrate this technique in your own database/application.

Example 01:

```

-- Start
IF (CVAL('DATABASE')) <> 'RRBYW14' OR (CVAL('DATABASE')) IS NULL THEN
  CONNECT RRBYW14 IDENTIFIED BY NONE
ENDIF
LABEL Start
CLEAR VAR vTableName,vRowSize,vString,vPauseMessage,vYesNo,vCaption,
vEndKey
SET VAR vTableName TEXT = NULL
SET VAR vRowSize INTEGER = NULL
SET VAR vString TEXT = NULL
SET VAR vPauseMessage TEXT = NULL
SET VAR vYesNo TEXT = 'No'
SET VAR vCaption TEXT = ' Finding Row Size - Select Table Name'
CLS
CHOOSE vTableName FOR #TABLES +
  CHKBOX 1 +
  TITLE 'Select a table and then click on [OK] button to continue' +
  CAPTION .vCaption LINES 19 FORMATTED +
  OPTION LIST_FONT_COLOR MAROON +
  |TITLE_FONT_COLOR MAROON +
  |TITLE_BACK_COLOR [R234,G234,B234] +
  |WINDOW_BACK_COLOR [R234,G234,B234] +
  |TITLE_FONT_SIZE 10 +
  |TITLE_FONT_NAME VERDANA +
  |LIST_BACK_COLOR [R234,G234,B234] +
  |BUTTONS_SHOW_GLYPH ON +
  |THEMENAME R:BASE Rocks!
IF vTableName = '[Esc]' THEN

```

```

    GOTO Done
ENDIF
IF vTableName IS NULL THEN
    PAUSE 2 USING 'Table NOT Selected!' +
    CAPTION .vCaption ICON STOP +
    BUTTON 'Click here to select a table ...' +
    OPTION BACK_COLOR WHITE +
    |MESSAGE_COLOR WHITE +
    |MESSAGE_FONT_NAME Verdana +
    |MESSAGE_FONT_COLOR RED +
    |MESSAGE_FONT_SIZE 10 +
    |MESSAGE_FONT_BOLD ON +
    |MESSAGE_FONT_ITALIC OFF +
    |MESSAGE_FONT_STRIKEOUT OFF +
    |BUTTON_COLOR WHITE +
    |BUTTON_FONT_COLOR GREEN +
    |THEMENAME R:BASE Rocks!
    GOTO Start
ENDIF
SET VAR vString = ('vRowSize|TABLE_NAME'&.vTableName)
PLUGIN RRowSize76.RBL &vString
SET VAR vPauseMessage = +
    ((CHAR(013))+ 'Table Name:'+(CHAR(009))&.vTableName+(CHAR(013))+ +
    'Row Size:'+(CHAR(009))&(CTXT(.vRowSize)))
CLS
PAUSE 2 USING .vPauseMessage +
    CAPTION 'Finding Row Size' +
    ICON APP +
    BUTTON 'Press any key to continue ...' +
    OPTION MESSAGE_FONT_NAME VERDANA +
    |MESSAGE_FONT_SIZE 10 +
    |MESSAGE_FONT_COLOR MAROON +
    |MESSAGE_FONT_BOLD OFF +
    |BUTTON_COLOR WHITE +
    |BUTTON_FONT_COLOR GREEN +
    |THEMENAME R:BASE Rocks!
GOTO Start
LABEL Done
CLEAR VAR vTableName, vRowSize, vString, vPauseMessage, vYesNo, vCaption,
vEndKey
RETURN
-- End

```

14.18 Listing Database Keys

Did you know that you can use the new LIST command to list PRIMARY, FOREIGN and UNIQUE Keys?

Here's how:

1. LIST PKEYS

Using LIST PKEYS will return a list of all PRIMARY KEYS and PRIMARY KEYS REFERENCED.

2. `LIST PKEYS FOR tablename`

Using `LIST PKEYS FOR tablename` will return the name of a PRIMARY KEY column for a given table name and associated REFERENCED keys

3. `LIST FKEYS`

Using `LIST FKEYS` will return a list of all FOREIGN KEYS in the connected database.

4. `LIST FKEYS FOR tablename`

Using `LIST FKEYS FOR tablename` will return a list of all FOREIGN KEY columns for a given table.

5. `LIST UKEYS`

Using `LIST UKEYS` will return a list of all UNIQUE KEYS in the connected database.

6. `LIST UKEYS FOR tablename`

Using `LIST UKEYS FOR tablename` will return a list of all UNIQUE KEY columns for a given table.

14.19 Listing Tables with Cascade and Cascade Type

Did you know that you can list all tables with Cascade and Cascade Types, if defined, using the `LIST` command?

```
LIST CASCADE
```

`LIST CASCADE` will display a list of all tables with a CASCADE and type of cascade (UPDATE, DELETE or BOTH).

14.20 Programmatically Clean Scratch Files on Exit

Current versions of R:BASE 7.6, Turbo V-8 and R:BASE eXtreme allow you to "Clean Scratch Files on Exit" by using an option within the R:BASE Settings; select "Settings" > "Clean Scratch Files on Exit" from the main Menu Bar.

However, when using the R:Compiler executables or Runtime applications, this option is not available, obviously for restricted access to all settings, designers, and the R> Prompt.

Did you know that you can programmatically clean the scratch files on exit, using the following `PROPERTY` command in the application startup file, as an "On Before Start" Custom EEP in the main application form, External Form File, or R:BASE Application (.RBA) file?

```
PROPERTY APPLICATION CLEANSCRATCHFILESONEXIT 'TRUE'  
RETURN
```

Using this option will automatically clean all scratch files upon exiting of your compiled or runtime application.

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.5.31229 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.5.31229 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.19.31229 or higher)
- R:BASE eXtreme (v9) for Windows (Build: 9.0.1.11229 or higher)

14.21 RUN filespec vs. QUIT TO filespec

Creating complex applications with many command files and monitoring nesting levels has always been an art with designing trouble-free applications. It is the programmer's responsibility to monitor the nesting level, when using RUN filespec command from within a command or procedure file.

When you use the RUN filespec command from within a command or procedure file, R:BASE adds one to the nesting level for each nested command file. The RETURN command is the only way to exit and to return control to the next line in the calling command file and to decrease the nesting counter by one.

You can nest command files, such as RUN filespec, IF structures, WHILE loops, and SWITCH structures. The number of control structures that you can nest depends on the amount of memory available when the command or procedure file executes.

You can have up to five levels of RUN execution, unless you use the SET FILES command to change the number of command files that can be open simultaneously. In other words, command file 1 can execute command file 2, command file 2 can execute command file 3, command file 3 can execute command file 4, and command file 4 can execute command file 5. Successive RETURN commands pass execution control back up through the command files.

It all comes down to defining nesting levels and ... making sure to return control back to the originating command file.

Using the QUIT TO filespec command, there is no overhead, no nesting level, nor does R:BASE have to keep track of nesting levels.

Using the QUIT TO filespec command, you can QUIT TO any command file at any level you wish and never have to worry about returning to the last command to return control to the one command before and so on ...

QUIT TO filespec command clears all nesting levels and resets the nesting level to 0. Thus, no overhead.

You can use QUIT TO in individual binary codelocked command file(s), however, QUIT TO filespec cannot be used to execute a command block in a procedure file.

14.22 Selecting the Appropriate Tray Using PRNSETUP

Did you know that you can select the printer specific paper tray using the PRNSETUP command?

Syntax:

```
PRNSETUP TRAY_NAME <Printer Specific Tray name>
```

```
-- Example 01: (to select printer specific Tray1)
```

```
PRNSETUP TRAY_NAME Tray1  
RETURN
```

```
-- Example 02: (to select printer specific Tray2)
```

```
PRNSETUP TRAY_NAME Tray2  
RETURN
```

```
-- Example 03: (to select printer specific MP Tray)
```

```
PRNSETUP TRAY_NAME MP Tray  
RETURN
```

14.23 Understanding Dotted vs. Ampersand Variables

Dotted Variables

1. Variables used to hold values.
2. When you want R:BASE to use the "value" contained in the variable.
3. When you use a variable in a calculation or as a comparison value, you use "dot" variable.
4. A rule of thumb for when to "dot" a variable is to always "dot" the variable when it is on the right side of the operator.
5. Dotted a variable basically turns it into a constant value. R:BASE looks only at the value of the variable when it is dotted. R:BASE doesn't look at the datatype, just at the value the variable contains. That's why you can have a TEXT datatype variable (result of a CHOOSE or DIALOG command, for example) containing a value that looks like a DATE and use that variable to compare to a DATE datatype column or variable.
6. In expressions, R:BASE checks the datatype of a dotted variable. An expression is anything enclosed in parentheses. R:BASE verifies the datatype in expressions to make sure the expression is valid. You can't add an INTEGER to a TEXT for example.
7. Dotted variables are used in Form and Report expressions as they are in the SET VAR command. On the right side of the operator, dot the variable.
8. Dotted variables are commonly used in WHERE clauses and in calculations with other variables.

Example 01:

```
SET VAR vDate DATE = 11/19/2001
SELECT * FROM TransMaster WHERE TransDate <= .vDate
```

The SELECT queries all of the records from the TransMaster table where the value in the TransDate column is less than or equal to the value contained in the variable vdate.

Example 02:

```
SET VAR vOrder INTEGER = 20001
SET VAR vAmount CURRENCY = NULL
SET VAR vShip TEXT = NULL
SET VAR vFreight CURRENCY = NULL
SET VAR vTax CURRENCY = NULL
SET VAR vState TEXT = NULL
SELECT NetAmount, ShipMethod, StateAbr INTO +
  vAmount INDIC IvAmount, +
  vShip INDIC IvShip, +
  vState INDIC IvState +
  FROM Orders WHERE OrderNum = .vOrder
IF vShip = 'AIR' THEN
  SET VAR vFreight = $11.00
ELSE
  SET VAR vFreight = $5.00
ENDIF
SET VAR vAmount = (.vAmount + .vFreight)
SELECT TaxRate INTO vTax INDIC IvTax +
  FROM States WHERE StateAbr = .vState
SET VAR vAmount = (.vAmount+(.vAmount*.vTax))
```

On the right side of the equals sign (the operator), the variable is dotted. On the left side of the operator, in the IF and the SET VAR commands, the variable is referenced by its name only, it is not dotted.

Ampersand Variables

1. You can't dot a variable when it contains part of a command - a table or column name, or an ORDER

- BY or WHERE clause.
2. When a variable contains part of a command, its name is prefaced with an ampersand, "&", and it is called an ampersand variable. The "&" in front of the variable name tells R:BASE that the variable contains part of the command, not a value, and the contents of the variable are used when parsing the command.
 3. Don't confuse the ampersand that prefaced a variable name with the ampersand that is used to concatenate TEXT values.
 4. Because an ampersand variable is part of a command, it can't be used inside parentheses. Parentheses indicate expressions, expressions are parsed separately from the rest of the command. You need to include the parentheses as part of the variable value. Sub-selects and IN lists are enclosed in parentheses and you can't use an ampersand variable inside them, you need to include the entire sub-select or IN list, including parentheses, as the variable value.
 5. Ampersand variables are most often used to hold table and column names and WHERE and ORDER BY clauses. By using ampersand variables to hold column and table names, you can use the same command to select data from different tables. The CHOOSE command displays menus of available tables and columns.

Example 01:

```
SET VAR vTable TEXT = NULL
SET VAR vColList TEXT = NULL
CLS
CHOOSE vTable FROM #TABLES AT CENTER,CENTER TITLE 'Choose Table' +
  CAPTION 'List of Tables' LINES 18 FORMATTED
CLS
CHOOSE vColList FROM #COLUMNS IN &vTable AT CENTER,CENTER +
  CHKBOX TITLE 'Choose Column(s)' CAPTION 'List of Columns' +
  LINES 18 FORMATTED
```

The values selected from the menus are placed into variables.

The variables might look like this:

```
vTable = Employee TEXT
vColList = Empid,EmpLname,EmpPhone,EmpExt TEXT
```

The variables are then used in any command that uses a table name or column list. Where you see Column names or Table/View name you can substitute an ampersand variable that contains the Column, Table or View name. The variables must be used as ampersand variables to tell R:BASE they contain part of the command.

Example 02:

```
BROWSE &vColList FROM &vTable
```

To prompt for an ORDER BY clause, use the CHKSORT option instead of CHKBOX on the CHOOSE... FROM #COLUMNS.

Example 03:

```
SET VAR vOrderBy TEXT = NULL
CHOOSE vOrderBy FROM #COLUMNS IN &vTable AT CENTER,CENTER +
  CHKSORT TITLE 'Choose Column(s)' CAPTION 'Order By' +
  LINES 18 FORMATTED
```

The CHKSORT option prompts for Ascending or Descending just like the R:BASE sort menus. The variable contains ASC or DESC as well as the column names. It might look like this:

```
vOrderBy = EmpLname ASC,EmpFname ASC TEXT
```

In the command, follow the keywords ORDER BY with the ampersand variable containing the columns to order by.

Example 04:

```
BROWSE &vColList FROM &vTable ORDER BY &vOrderBy
```

14.24 Understanding WHILE Loop Optimization

Have you ever run into a situation where your command file/application is not working correctly by variables not being calculated accurately or by experiencing unexpected closes within a WHILE.. ENDWHILE loop; and when you TRACE or RUN that routine with WHILEOPT set to off, R:BASE returns no errors and everything works fine?

Well, those are the typical symptoms of WHILE loop optimization. There is likely a problem with an optimized command and the problem is most likely with a variable that you may be clearing, redefining, or not data typing.

WHILE loops have always been considered one of the faster ways to process code as R:BASE places the WHILE loop code into memory and then parses it before beginning execution. R:BASE does not need to perform line-by-line reading and parsing of the code for each iteration of the WHILE loop. As the code is read into memory, the WHILE loop code was parsed into tokens (4-byte segments). But, R:BASE still needed to figure out what was what -- parse the expressions, find variable names and values, etc. It was faster than reading and parsing line-by-line, but not as fast as it could be.

If you determine that the problem is with an optimized command, review the rules below:

1. Pre-define all variable(s) with NULL values at the beginning of a command file or before the WHILE loop is executed.
2. Always use DROP CURSOR cursor before DECLARE CURSOR.
3. When using FETCH cursor INTO varname, always use INDICATOR variables for each defined variable(s).
4. Use WHILE SQLCODE <> 100 THEN
5. Never CLEAR any variable(s) within the WHILE loop. The value can be reset to NULL, but not cleared.
6. Never change variable data types within the WHILE loop.
7. Make sure to DROP CURSOR cursor after the WHILE loop.
8. Make sure to CLEAR unwanted and INDICATOR variables after the WHILE loop.

Keep in mind that TRACE does not use the WHILE loop optimization.

Example:

```
SET VAR vVarName ColType = NULL
DROP CURSOR C#1
DECLARE C#1 CURSOR FOR SELECT ColName FROM TableName +
ORDER BY ColName
OPEN C#1
FETCH C#1 INTO vVarName INDIC IvVarName
WHILE SQLCODE <> 100 THEN
  -- Do what you have to do here with that sorted record
  FETCH C#1 INTO vVarName INDIC IvVarName
ENDWHILE
DROP CURSOR C#1
CLEAR VAR vVarName, IvVarName
```

14.25 Upgrading an R:BASE Database to Turbo V-8

To convert your existing R:BASE database to R:BASE Turbo V-8, all you have to do is the following:

1. Start R:BASE Turbo V-8 (RBG8.exe)
2. Switch the default directory to your database directory
3. At the R> prompt, type the following command:

```
TURBO dbname
```

Watch the speedy database conversion process ...

This step makes a duplicate copy of your R:BASE database to be used exclusively by R:BASE Turbo V-8. The new database files will have the following extensions:

- dbname.RX1
- dbname.RX2
- dbname.RX3
- dbname.RX4

X = eXtended

The original R:BASE database will remain intact and without change.

You may also use the alternative method of building an R:BASE Turbo V-8 database using the file structure and data from R:BASE for Windows using the traditional UNLOAD ALL command.

1. Start R:BASE at launch the R> Prompt window
2. Type in the following commands individually:

```
CONNect dbname
SET NULL -0-
OUTPUT filename.ALL
UNLOAD ALL
OUTPUT SCREEN
DISCONNECT
```

This process will create two files (filename.ALL and filename.LOB)

4. Now, Start R:BASE Turbo V-8
5. Switch the default directory to the folder with filename.ALL and filename.LOB files.
6. At the R> prompt of R:BASE Turbo V-8:

```
RUN filename.ALL
```

This step will build a clean database to be used exclusively by R:BASE Turbo V-8. The new database files will have the following extensions:

- dbname.RX1
- dbname.RX2
- dbname.RX3
- dbname.RX4

X = eXtended

At the R> Prompt, the LIST DATABASE command will only list R:BASE Turbo V-8 database(s) in that folder.

Once the database is converted, it can only be connected to using R:BASE Turbo V-8.

All R:BASE 7.x Forms, Reports, Labels that are converted to Turbo V-8, along with your existing R:BASE

7.x compliant code and applications, should work accordingly.

Along with breaking the 2GB limit, enhanced input/output speed, and Turbo V-8 specific commands, you also have the ability to increase the database, tables, columns, etc. naming conventions up 128 characters.

R:BASE Turbo V-8 for Windows is suitable for those who are reaching the file size limit of 2GB and for Enterprise WEB/LAN/WAN Application Development Environments utilizing multiple high-end database products.

Note:

All add-on products which connect to the database files, such as: R:Compiler, R:Charts, Oterro, R:Synchronizer, R:Magellan, any Custom Plugins, RAdmin, R:Scope, etc., will also need upgraded in order to be compatible with your R:BASE Turbo V-8 database files.

14.26 Using an Enhanced Calculator in a Dialog Box

Did you know that you can bring up the enhanced R:BASE Calculator by simply double-clicking in a DIALOG box?

This newly introduced enhancement also adapts the R:BASE Themes, if used as an option for the DIALOG command.

```
-- Example 01:
-- Dialog_With_Popup_As_Calculator_01.RMD
CLS
CLEAR VAR vValueTxt,vValue,vEndKey
SET VAR vValueTxt TEXT = NULL
SET VAR vValue DOUBLE = NULL
DIALOG 'Enter Value or Double-Click for Calculator' +
  vValueTxt=26 vEndKey 1 +
  CAPTION 'DIALOG with Calculator Pop-up' ICON APP OPTION +
  POPUP_ENABLED TRUE +
  |POPUP_DIALOG_TYPE CALCULATOR
SET VAR vValue = .vValueTxt
CLEAR VARIABLE vValueTxt,vEndKey
RETURN

-- Example 02:
-- Dialog_With_Popup_As_Calculator_02.rmd
-- Using THEMENAME as Razzmatazz
-- Notice the dialog box and the matching calculator
CLS
CLEAR VAR vValueTxt,vValue,vEndKey
SET VAR vValueTxt TEXT = NULL
SET VAR vValue DOUBLE = NULL
DIALOG 'Enter Value or Double-Click for Calculator' +
  vValueTxt=36 vEndKey 1 +
  CAPTION 'DIALOG with Calculator Pop-up' ICON APP OPTION +
  POPUP_ENABLED TRUE +
  |POPUP_DIALOG_TYPE CALCULATOR +
  |THEMENAME Razzmatazz
SET VAR vValue = .vValueTxt
CLEAR VARIABLE vValueTxt,vEndKey
RETURN

-- Example 03:
-- Dialog_With_Popup_As_Calculator_02.rmd
```

```

-- Using THEMENAME as R:BASE Rocks!
-- Notice the dialog box and the matching calculator
CLS
CLEAR VAR vValueTxt,vValue,vEndKey
SET VAR vValueTxt TEXT = NULL
SET VAR vValue DOUBLE = NULL
DIALOG 'Enter Value or Double-Click for Calculator' +
  vValueTxt=30 vEndKey 1 +
  CAPTION 'DIALOG with Calculator Pop-up' ICON APP OPTION +
  POPUP_ENABLED TRUE +
  |POPUP_DIALOG_TYPE CALCULATOR +
  |THEMENAME R:BASE Rocks!
SET VAR vValue = .vValueTxt
CLEAR VARIABLE vValueTxt,vEndKey
RETURN

```

14.27 Using DROP ALL

Typically, the DROP ALL TABLES command can be used to DROP all tables with a warning dialog prompt (Yes/No) to verify each table and DROP ALL VIEWS command can be used to DROP all views with a warning dialog prompt (Yes/No) to verify each view.

However, if you wish to DROP ALL tables except a few, you may use the DROP ALL TABLES EXCEPT tablename1, tablename2 command. You may also use the *enhanced* DROP ALL VIEWS EXCEPT viewname1, viewname2 command using the latest versions/updates of R:BASE.

Summary:

- Use DROP ALL or DROP ALL TABLES command to drop all TABLES
- Use DROP ALL VIEWS command to drop all VIEWS
- Use DROP ALL TABLES EXCEPT listoftables command to drop all tables except the ones listed, separated by commas

Example:

```
DROP ALL TABLES EXCEPT tablename1, tablename2
```

- Use DROP ALL VIEWS EXCEPT listofviews command to drop all views except the ones listed, separated by commas

Example:

```
DROP ALL VIEWS EXCEPT viewname1, viewname2
```

14.28 Using ON CONNECT

Did you know that you can use the ON CONNECT command to save and reset your ON CONNECT parameters in R:BASE?

Syntax Sample 01:

```
ON CONNECT RUN commadfile SAVE
```

Where:

- CONNECT indicates the command file should be run when connecting a database.
- RUN specifies the name of the command file to run.

- commandfile specifies the name of the command file to run.
- SAVE indicates the defined ON CONNECT parameters be saved.
- Any options without the SAVE parameters will only be active for a session.

Example 01:

```
CONNECT RRBYW10 IDENTIFIED BY NONE
ON CONNECT RUN RRBYW10.DAT SAVE
```

To RESET the ON CONNECT parameters:

Syntax Sample 02.:

```
ON CONNECT RESET SAVE
```

Where:

- RESET turns the ON CONNECT procedure off.
- SAVE indicates the defined ON CONNECT parameters be saved.

Example 02:

```
CONNECT RRBYW10 IDENTIFIED BY NONE
ON CONNECT RESET SAVE
```

14.29 Using PRNSETUP Help Options

Did you know that you can use the PRNSETUP HELP options to find available Fonts, Printers, Formats, Sources and other details about your printer?

Here's how:

1. Start R:BASE
2. At the R> prompt, type:

```
PRNSETUP HELP
```

This will list all available options, such as:

```
FONTS - Available Fonts
PRINTERS - Available Printers
PAPER NAMES - Available Formats
TRAYS - Available Sources
INFO - Current Printer Information
```

```
PRNSETUP FONTS
```

This will list all available fonts.

```
PRNSETUP PRINTERS
```

This will list all available printers. Printer name preceded by "*" denotes the default printer.

```
PRNSETUP PAPER NAMES
```

This will list all available paper formats.

PRNSETUP TRAYS

This will list all available paper sources.

PRNSETUP INFO

This will list all details about the default printer, including:

- Current Printer
- Status
- Paper Orientation
- Paper Size
- Paper Source
- Print Quality (DPI)
- Copies
- Color Mode
- Duplex Mode
- Collation

14.30 Using the Enhanced DIR Command in R:BASE

Did you know that the traditional DIR command has been enhanced to display new Windows output format? DIR command displays a list of a directory's files and sub-directories. Used without parameters, DIR displays the disk's volume label and serial number, followed by a list of directories and files on the disk, including their names and the date and time each was last modified.

Example 01:

For files, DIR displays the long name, extension and the size in bytes. DIR also displays the total number of files and directories listed, their cumulative size, and the free space (in bytes) remaining on the disk.

```

R:BASE 7.6 - [R> Prompt]
Database Tools Settings Utilities Window Help

R>
R>DIR

Volume in drive C has no label.
Volume Serial Number is A8F7-FF75

Directory of C:\RBTI\2008_RBG76_SAT\RRBYW15\

11/23/2008 06:49 AM <DIR>          -
11/23/2008 06:49 AM <DIR>          ..
11/22/2008 07:56 AM              4,415 Customer.rgw
11/21/2008 08:46 PM <DIR>          PDF
11/22/2008 07:56 AM              1,138 Quarterly_BarChart.rbc
11/22/2008 07:56 AM              1,618 Quarterly_BarHorizontal.rbc
11/22/2008 07:56 AM              1,179 Quarterly_DonutChart.rbc
11/22/2008 07:56 AM              1,286 Quarterly_PieChart.rbc
11/22/2008 07:56 AM                237 RRBVW15.dat
11/28/2008 10:20 AM              18,404 RRBVW15.rb1
11/28/2008 10:20 AM             327,688 RRBVW15.rb2
11/28/2008 10:20 AM             65,536 RRBVW15.rb3
11/28/2008 10:20 AM          3,325,952 RRBVW15.rb4
11/23/2008 06:46 AM             42,322 RRBVW15.rff
11/22/2008 07:56 AM             1,118 RRBVW15_SplashScreen.rff
    12 File(s)              3,790,885 bytes
     3 Dir(s)              12,146,565,120 bytes Free

```

If you wish to display the traditional output format, you can use the following new SET SHORTNAME ON command. The default is set to OFF.

Example 02:

```

R:BASE 7.6 - [R> Prompt]
Database Tools Settings Utilities Window Help

R>

R>SET SHORTNAME ON

R>DIR

Volume in drive C has no label.
Directory of C:\RBTI\2008_RBG76_SAT\RRBYW15\

.           <DIR>          11-23-08   6:49a  .
..          <DIR>          11-23-08   6:49a  ..
Customer.rgw 4415  11-22-08   7:56a  Customer.rgw
PDF          <DIR>          11-21-08   8:46p  PDF
QUARTE~1.RBC 1138  11-22-08   7:56a  Quarterly_BarChart.rbc
QUARTE~2.RBC 1618  11-22-08   7:56a  Quarterly_BarHorizontal.rbc
QUARTE~3.RBC 1179  11-22-08   7:56a  Quarterly_DonutChart.rbc
QUARTE~4.RBC 1286  11-22-08   7:56a  Quarterly_PieChart.rbc
RRBYW15.dat  237   11-22-08   7:56a  RRBYW15.dat
RRBYW15.rb1 18404 11-28-08  10:20a RRBYW15.rb1
RRBYW15.rb2 327680 11-28-08  10:20a RRBYW15.rb2
RRBYW15.rb3 65536 11-28-08  10:20a RRBYW15.rb3
RRBYW15.rb4 3325952 11-28-08  10:20a RRBYW15.rb4
RRBYW15.rff 42322 11-23-08   6:46a  RRBYW15.rff
RRBYW1~1.RFF 1118  11-22-08   7:56a  RRBYW15_SplashScreen.rff
           15 File(s)          3790885 bytes
           15 Dir(s)      12155355136 bytes free

```

In addition, new SHOW SHORTNAME command will display the current setting and new (CVAL ('SHORTNAME')) function will retrieve the current setting when used in a command file.

The default RBENGINE76.CFG, RBENGINE8.CFG, or RBENGINE9.CFG files, when created from scratch, will also include the new default setting as SHORTNAM OFF.

Supported Versions:

- R:BASE 7.6 for Windows (Build:7.6.5.31125 or higher)
- R:BASE C/S:I 7.6 for Windows (Build:7.6.5.31125 or higher)
- R:BASE Turbo V-8 for Windows (Build:8.0.19.31125 or higher)
- R:BASE eXtreme for Windows (Build:9.0.1.31125 or higher)

14.31 Using the GAUGE Options with PAUSE

If you are running a routine and don't know exactly how long it is going to take, now you may use the new GAUGE options to display a cool gauge with custom theme and colors.

Here's how:

Example 01:

```

CLS
PAUSE 3 USING 'Calculating ... Please Stand By ...' +
CAPTION ' Pause 3 with Gauge ' ICON APP +

```

```

OPTION GAUGE_VISIBLE ON +
|GAUGE_COLOR [R218,G228,B246] +
|GAUGE_INTERVAL 10 +
|MESSAGE_FONT_NAME VERDANA +
|MESSAGE_FONT_SIZE 10 +
|MESSAGE_FONT_COLOR BLUE +
|THEMENAME Razzmatazz
-- Put your code, that takes a lot of time, here ...
-- Use CLS command to clear the PAUSE 3 with gauge
RETURN

```

Example 02:

```

CLS
PAUSE 3 USING 'Calculating ... Please Stand By ...' +
CAPTION ' Pause 3 with Gauge ' ICON APP +
OPTION GAUGE_VISIBLE ON +
|GAUGE_COLOR 2708091 +
|GAUGE_INTERVAL 10 +
|MESSAGE_FONT_NAME VERDANA +
|MESSAGE_FONT_SIZE 10 +
|MESSAGE_FONT_COLOR RED +
|THEMENAME R:BASE Rocks!
-- Put your code, that takes a lot of time, here ...
-- Use CLS command to clear the PAUSE 3 with gauge
RETURN

```

Example 03:

```

CLS
PAUSE 3 USING 'Calculating ... Please Stand By ...' +
CAPTION ' Pause 3 with Gauge ' +
ICON WINDOWS +
OPTION GAUGE_VISIBLE ON +
|GAUGE_COLOR RED +
|GAUGE_INTERVAL 10 +
|MESSAGE_FONT_NAME VERDANA +
|MESSAGE_FONT_SIZE 10 +
|MESSAGE_FONT_COLOR WHITE +
|THEMENAME Steel Blue
-- Put your code, that takes a lot of time, here ...
-- Use CLS command to clear the PAUSE 3 with gauge
RETURN

```

14.32 Using the R:AudioPlayer Plugin

The R:AudioPlayer Plugin is used to play audio files. The Plugin supports the following audio formats:

- AVI
- MDI
- MP3
- WAV
- WMA

Syntax:

```
PLUGIN RAudioPlayer80.RBL vResult|option
```

Supported Options:

- FILENAME filespec
- PLAY
- PAUSE
- RESUME
- STOP

Where:

- vResult is the text variable to return the status, such as 'OK' or the exact -ERROR- message
- FILENAME is the name and path of the audio file
- PLAY is used to play the current file
- PAUSE is used to pause the current file
- RESUME is used to resume playing the current file
- STOP is used to stop playing the current file

Each option must be separated by a "|" pipe symbol.

-- Example 01: To load and play audio file

```
PLUGIN RAudioPlayer80.RBL vResult|FILENAME DreamTheater_Octavarium.mp3
PLUGIN RAudioPlayer80.RBL vResult|PLAY
RETURN
```

-- Example 02: To pause the already playing audio

```
PLUGIN RAudioPlayer80.RBL vResult|PAUSE
RETURN
```

-- Example 03: To resume the paused audio

```
PLUGIN RAudioPlayer80.RBL vResult|RESUME
RETURN
```

-- Example 04: To stop the audio player

```
PLUGIN RAudioPlayer80.RBL vResult|STOP
RETURN
```

In order to use R:Audio Player Plugin with R:BASE Turbo V-8, you have to make sure that the version specific "RBL" Plugin is installed in the R:BASE program folder (R:BASE Turbo V-8 default C:\RBTI\RBG8), or in the compiled (.exe) application folder. R:AudioPlayer does not appear in the R:BASE for Windows Plugins Menu.

Please Note:

There are 3 different versions of R:AudioPlayer Plugins available for each version of R:BASE for Windows.

- RAudioPlayer.RBL (for R:BASE 7.5 for Windows)
- RAudioPlayer76.RBL (for R:BASE 7.6 and 7.6 C/S:I for Windows)
- RAudioPlayer80.RBL (for R:BASE Turbo V-8 for Windows)

These Plugins are only made available through the purchase of the R:BASE Plugin Power Pack.
<http://www.rbase.com/products/pluginpowerpack>

14.33 Using the R:ID3Tag Plugin to extract MP3 file information

Syntax:

```
PLUGIN RID3Tag.RBL varname|FILE_NAME filename.mp3|INFO_TYPE value
```

Where:

FILE_NAME is the actual name of the mp3 file.

INFO_TYPE is type of information you would like to receive in a variable.

Supported values are:

- TITLE
- ARTIST
- ALBUM
- YEAR
- GENRE
- COMMENT

Example:

```
PLUGIN RID3Tag.RBL vTitle|FILE_NAME filename.mp3|INFO_TYPE TITLE
PLUGIN RID3Tag.RBL vArtist|FILE_NAME filename.mp3|INFO_TYPE ARTIST
PLUGIN RID3Tag.RBL vAlbum|FILE_NAME filename.mp3|INFO_TYPE ALBUM
PLUGIN RID3Tag.RBL vYear|FILE_NAME filename.mp3|INFO_TYPE YEAR
PLUGIN RID3Tag.RBL vGenre|FILE_NAME filename.mp3|INFO_TYPE GENRE
PLUGIN RID3Tag.RBL vComment|FILE_NAME filename.mp3|INFO_TYPE COMMENT
```

Resulting Variables:

vTitle is the title of mp3 file
 vArtist is the name of artist
 vAlbum is the name of album
 vYear is the year of album
 vGenre is the category of music
 vComment is the additional comment about mp3 file

In addition to a library of other R:BASE Plugins, the RID3Tag.RBL Plugin is included with the latest version of the R:BASE Plugin Power Pack.

14.34 Using the TOP and LEFT coordinates for PRNSETUP

There are times when you wish you could display the PRNSETUP window at a particular position on the desktop, instead of in the center of your screen.

Using the latest updates, now you can use the TOP and LEFT coordinates to achieve this goal.

Here's how:

```
PRNSETUP +
  OPTION CAPTION Select Printer +
  |TOP 10 +
  |LEFT 10 +
  |THEMENAME R:BASE Rocks!
RETURN
```

The PRNSETUP windows will be displayed at your desktop's top 10 and left 10 screen pixels, with a caption "Select Printer" and the theme of R:BASE Rocks!

You may change the TOP and LEFT coordinates, as well as choose from over 30 supported Themes, to suit your R:BASE application.

In addition to PRNSETUP, the OPTION for TOP and LEFT coordinates are also supported in the #WHERE, CHOOSE, DIALOG and PAUSE commands.

14.35 Using the Zoom Level Percent for PRINT

If you need to PRINT any report/label on SCREEN with a pre-defined Zoom Level, such as ZOOMPERCENT 55, you will need to precede the option with ZOOM_TYPE PERCENTAGE.

Example:

```
PRINT reportname WHERE whereclause ORDER BY orderbyclause +
OPTION SCREEN +
|WINDOW_STATE MAXIMIZED +
|ZOOM_TYPE PERCENTAGE +
|ZOOMPERCENT 55
```

14.36 Using Themes for the #WHERE Builder

Did you know that in addition to applying Themes to Forms, Pop-up Menus, CHOOSE, DIALOG and PAUSE commands, now you can also apply R:Themes for #WHERE Builder window also?

When using #WHERE IN tableview option of CHOOSE command, it opens the WHERE builder for you to enter conditions for the columns in the specified table or view; stores the entire WHERE clause in the variable varname.

-- Example 01: (Traditional Command)

```
CONNECT RRBYW10
CHOOSE vWhereClause FROM #WHERE IN Customer
RETURN
```

-- Example 02: (Using Razzmatazz theme for #WHERE)

```
CONNECT RRBYW10
CHOOSE vWhereClause FROM #WHERE IN Customer +
OPTION THEMENAME Razzmatazz
RETURN
```

-- Example 03: (Using R:BASE Rocks! theme for #WHERE)

```
CONNECT RRBYW10
CHOOSE vWhereClause FROM #WHERE IN Customer +
OPTION THEMENAME R:BASE Rocks!
RETURN
```

14.37 Using SET FEEDBACK

With SET FEEDBACK set to ON, R:BASE displays the number of rows processed and the elapsed time to completion in the new pause look-alike form at the center of the screen.

Syntax: SET FEEDBACK ON/OFF

Default: OFF

This setting displays processing results when either calculating, sorting, inserting or editing more than 100 rows.

Supported commands:

- ALTER TABLE
- COMPUTE
- CREATE INDEX
- CROSSTAB
- DELETE
- INSERT
- The data transfer for the JOIN of two tables
- LOAD
- The data transfer for a PROJECT command
- SELECT
- SORTing a huge record set
- the data transfer for a SUBTRACT of two tables
- TALLY
- The R:BASE UNION command

14.38 Using SET PROGRESS

With SET PROGRESS set to ON, did you know that you can display a cool progress bar display window to show the process progression when building indexes, packing or reloading a database?

Syntax: SET PROGRESS ON/OFF

Default: OFF

Example 01:

```
CONNECT RRBYW14
PACK INDEX
```

Example 02:

```
CONNECT RRBYW14
PACK TABLE Customer
PACK TABLE InvoiceHeader
PACK TABLE InvoiceDetail
```

Example 03:

```
CONNECT RRBYW14
RELOAD RRBYWNEW
```

Example 04:

```
DISCONNECT
SET MULTI OFF
PACK RRBYW14
SET MULTI ON
```

Example 05:

```
DISCONNECT
SET MULTI OFF
CONNECT RRBYW14
PACK
SET MULTI ON
```

14.39 Using Wild Cards with PROPERTY

Did you know that you can use the connected database wild card symbols (also known as MANY) to change the PROPERTY of all controls with matching Component IDs at once?

-- Example 01:

```
PROPERTY FontControl% VISIBLE 'FALSE'  
RETURN
```

-- Example 02:

```
PROPERTY %ontControl VISIBLE 'FALSE'  
RETURN
```

-- Example 03:

```
PROPERTY %ontCon% VISIBLE 'FALSE'  
RETURN
```

Imagine the possibilities!

14.40 Validating An Internet Connection

When designing and deploying R:BASE eXtreme 9.1/9.5 applications, you might have a cool R:BASE routine or Plugin to submit and/or retrieve data that requires an Internet connection.

When your R:BASE eXtreme 9.1/9.5 applications include tools to extract, transform and load data, they are mainly responsible for data transfer from your R:BASE application and the Internet to data warehouses.

However, not being connected to the Internet, or not having Internet access may result into -ERROR- message(s) and so forth. It would be nice to confirm a valid Internet connection before submitting or retrieving data or LAUNCHing a Web browser.

Did you know that now you can use a new GETPROPERTY command parameter to check whether or not the computer is connected to the Internet?

Here's how:

```
SET VAR vResult TEXT = NULL  
GETPROPERTY APPLICATION IsInternetConnected vResult
```

Resulting "vResult" variable will return the value of YES or NO.

Using this approach, you can now build higher intelligence into your R:BASE eXtreme 9.1/9.5 applications.

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.5.11111 or higher)

Part



15 Functions

15.1 Checking the R:BASE Build in Your Applications

Here's the code you can use to check the current BUILD of R:BASE in your startup file prior to launching your wonderful RBG application with the latest features implemented.

```
-- Start
-- CheckBuild.RMD
-- Author: A. Razzak Memon
-- Application: R:Docs
CLEAR VAR vCurrentBuild, vCaption, vPauseMsg
SET VAR vCurrentBuild INTEGER = 73
SET VAR vCaption TEXT = 'R:Docs!'
SET VAR vPauseMsg TEXT = +
    ('MUST have RBG7 Update'&(CTXT(.vCurrentBuild))&'or higher to use'&.
    vCaption)
IF (INT(SGET(CVAL('BUILD'),2,5))) < .vCurrentBuild THEN
CLS
PAUSE 2 USING .vPauseMsg +
    CAPTION .vCaption +
    ICON STOP +
    BUTTON 'Click here to continue ...' +
    OPTION BACK_COLOR WHITE +
    |MESSAGE_COLOR WHITE +
    |MESSAGE_FONT_COLOR RED +
    |BUTTON_COLOR WHITE +
    |BUTTON_FONT_COLOR GREEN +
    |TRANSPARENCY 255
EXIT
ELSE
CLEAR VAR vCurrentBuild, vCaption, vPauseMsg
PROPERTY APPLICATION TITLE 'R:Docs'
CONNECT RDOCS
RUN GlobalVars.RMD
QUIT TO RDocs.DAT
ENDIF
RETURN
-- End
```

15.2 Finding PORTS on Your Workstation

Did you know that you can find the available ports on your computer?

You can find all available ports using the *new* (CVAL('PORTS')) function.

Here's how:

1. Start R:BASE
2. At the R> prompt, type:

```
SET VAR vAvailablePorts TEXT = NULL
SET VAR vAvailablePorts = (CVAL('PORTS'))
```

```
SHOW VAR vAvailablePorts
```

The variable *vAvailablePorts* will return a text string with a list of all ports that are available on that workstation. Each item in the list will be separated by a comma (or the database character settings for comma).

15.3 Finding Table/View Locks Programmatically

Did you know that you can find the table or view locks using the new (GETVAL ('GetLock','tableviewname')) function in R:BASE?

Here's how:

```
SET VARIABLE vCheckLock TEXT = NULL
SET VARIABLE vCheckLock = (GETVAL('GetLock','tableviewname'))
```

Where:

GetLock is the first required parameter and the tableviewname is the name of table or view.

The variable *vCheckLock* will return the text value of ON or OFF.

15.4 Finding the Data Type for a given Column or Variable

Did you know that you can find the data type for a given column name or variable by using the undocumented CVTYPE function?

Here's how:

Syntax:

```
(CVTYPE('colvarname',flag))
```

Returns the data type for a given column or variable name. To return the data type for a given column, a zero "0" flag must be used. To return the data type for a given variable, the one "1" flag must be used.

1. Start R:BASE for DOS or Windows
2. After CONNecting to ConComp or RRBYW14, try the following two examples at the R> prompt:

Example 01.

```
SET VAR vCustIDType TEXT = (CVTYPE('CustID',0))
SET VAR vEmpCity TEXT = (CVTYPE('EmpCity',0))
```

```
SHOW VARIABLES
```

```
vCustIDType = INTEGER TEXT
vEmpCity = TEXT,16 TEXT
```

Example 02.

```
SET VAR vCustIDType TEXT = (CVTYPE('CustID',0))
SET VAR vVarInquiry TEXT = (CVTYPE('vCustIDType',1))
```

```
SHOW VARIABLES
```

```
vCustIDType = INTEGER TEXT
```

```
vVarInquiry = TEXT,7 TEXT
```

NOTES:

- When using the zero flag to return column data types, you must be CONNECTed to a database.
- When returning a TEXT data type, the length is included and is separated with a comma. When returning a NUMERIC data type, the precision and scale are separated with commas.

15.5 Finding the INTEGER value for a given TEXT String

Did you know that you can find the INTEGER value for a given TEXT string by using the undocumented ISTR function of R:BASE?

Here's how:

Syntax:

```
(ISTR('textstring',position))
```

Returns the corresponding integer value.

This function converts a single character, which you specify within a string by position, returning its corresponding ASCII Character Chart Decimal value.

In the following example, the INTEGER value of *vDecimalValue* is 65 for the capital letter A.

Example 01:

Start R:BASE for DOS or R:BASE for Windows at the R> Prompt:

```
SET VARIABLE vDecimalValue = (ISTR('R:BASE Rocks!',4))

SHOW VARIABLE

vDecimalValue = 65 INTEGER
```

15.6 Managing DLCALL Functions

Did you know that you can:

1. Declare up to 200 functions using the DLCALL function
2. Use CHKFUNC function to check DLL function that exists or not

Example:

```
SET VAR v1 = (CHKFUNC('function_name'))
```

Returns 1 if function exists or 0 if not.

3. Use DELFUNC function to delete DLL function declaration

Example:

```
SET VAR v1 = (DELFUNC('function_name'))
```

Returns 1 if function was deleted or 0 if not.

4. Use new LIST FUNCTIONS command to list declared functions

LIST FUNCTIONS command will list all declared DLL functions

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.4.30611 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.4.30611 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.18.30611 or higher)

15.7 Using IFWINDOW

Did you know that you can use the IFWINDOW function to see if the form is open or not, WITHOUT specifying the AS alias option of ENTER or EDIT USING formname?

```
( IFWINDOW( FormComponentID ) )
```

will return 1 when a form with the Component ID is open, 0 if not.

All you need to do is assign a Component ID to the form.

15.8 Using CHKCUR

If you need to know whether a CURSOR is already DECLARED or DROPPed, now you may use the CHKCUR function to find the current status of a given cursor name.

Here's how:

```
SET VARIABLE vCheckCuror = (CHKCUR('cursorname'))
```

The CHKCUR Function checks to see if a cursor is declared and is not dropped. The function returns an integer value of 1 if the cursor exists and is not dropped, and 0 if it is not declared or dropped.

The variable vCheckCursor will return a value of 1 or 0.

15.9 Using CHKVAR

Have you ever had the need to find whether a required VARIABLE is declared before you use that variable in an expression or routine to avoid code breaks or a sequence of -ERROR- messages?

Now you can avoid those moments by simply verifying the existence of a variable using the CHKVAR function, which checks to see if a variable name exists.

Here's how:

```
SET VARIABLE vCheckVar = (CHKVAR('varname'))
```

The function returns an integer value of 1 if the variable name exists or is declared, and 0 if it is not defined.

The variable vCheckVar will return a value of 1 or 0.

No more workarounds, suppressing error messages or even lengthy code to evaluate the existence of a variable!

15.10 Using SLOCP

The SLOCP Function is used to locate the exact position of a given string and occurrence in a TEXT, NOTE or VARCHAR value, returning the position if the string is found or 0 if it is not found. Using -1 as the third parameter will return the LAST occurrence.

Syntax:

```
(SLOCP(TextNoteVarcharValue,string,occurrence))
```

Example 01:

```
SET VARIABLE v1 VARCHAR = 'ABCDEABC_AB'
SET VARIABLE vSloc1 = (SLOCP(.v1,'AB',1))
```

The resulting variable *vSloc1* will return the integer value of 1.

Example 02:

```
SET VARIABLE v1 VARCHAR = 'ABCDEABC_AB'
SET VARIABLE vSloc2 = (SLOCP(.v1,'AB',2))
```

Resulting variable *vSloc2* will return the integer value of 6.

The above two examples will locate the exact position of a given string and occurrence. However, if you wish to find the LAST occurrence in the value of your string, use the "-1" parameter. Here's how:

Example 03:

```
SET VARIABLE v1 VARCHAR = 'ABCDEABC_AB'
SET VARIABLE vSlocLast = (SLOCP(.v1,'AB',-1))
```

Resulting variable *vSlocLast* will return the integer value of 10.

15.11 Using SLOCI Function to Locate the Number of String Instances

Did you know that you can locate the number of instances a string appears in a TEXT, NOTE, or VARCHAR value using the new SLOCI Function?

Syntax:

```
(SLOCI(TextNoteVarcharValue,string,arg))
```

New SLOCI function will return the INTEGER value for the number of instances a string appears in a TEXT, NOTE, or VARCHAR value.

The argument parameter determines whether the search on the string is case sensitive, where "0" is not case sensitive while "1" is case sensitive.

Example 01:

```
SET VAR vProduct1 TEXT = (SLOCI('R:BASE Single Seat: Upgrade',':',0))
SHOW VAR
vProduct1 2 INTEGER
```

Example 02:

```
SET VAR vProduct2 TEXT = (SLOCI('Single Seat License','S',1))
```

```
SHOW VAR
vProduct2 2 INTEGER
```

Example 03:

```
SET VAR vProduct3 TEXT = (SLOCI('Single Seat License','S',0))
SHOW VAR
vProduct3 3 INTEGER
```

Have fun implementing this new Function in your R:BASE eXtreme 9.1 applications!

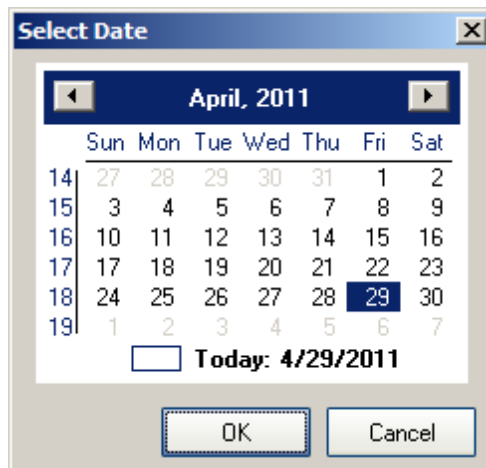
Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.3.10414 or higher)

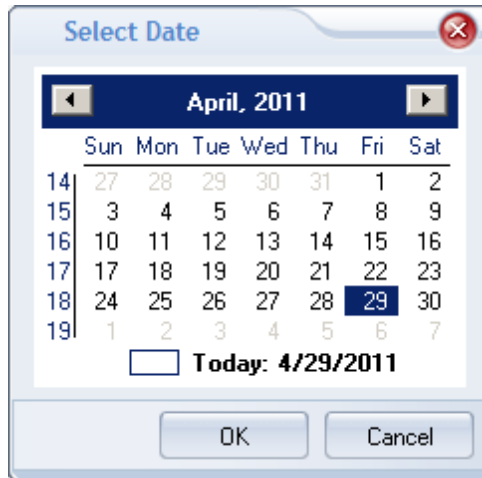
15.12 Using the Enhanced (GETDATE(' ')) Options

Traditionally, (GETDATE(' ')) will bring up the Windows GUI Calendar with today's date circled in red. Either you can click on [OK] to accept the circled date or click on any other date on the calendar using the current month or scrolling months.

```
-- Example 01 (Traditional Calendar):
SET VAR vDate DATE = NULL
SET VAR vDate = (GETDATE('Select Date'))
RETURN
```

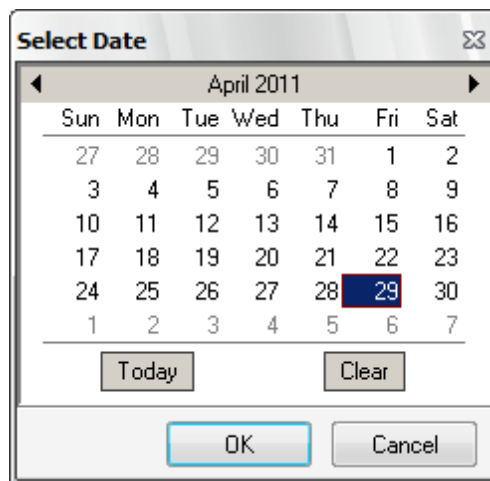


```
-- Example 02 (Traditional Calendar with R:BASE Themes):
SET VAR vDate DATE = NULL
SET VAR vDate = (GETDATE('Select Date|THEMENAME Soft Blue'))
RETURN
```



Did you know that now you can use the new "CALENDAR_TYPE ENHANCED" option to display an enhanced calendar?

```
-- Example 03 (Enhanced Calendar with R:BASE Theme):
SET VAR vDate DATE = NULL
SET VAR vDate = +
(GETDATE('Select Date|CALENDAR_TYPE ENHANCED|THEMENAME Vista CG'))
RETURN
```



Using the enhanced calendar, additional [Clear] button will clear the selection and use today's date as default. Clicking on [OK] will populate the selected date into a variable, such as vDate.

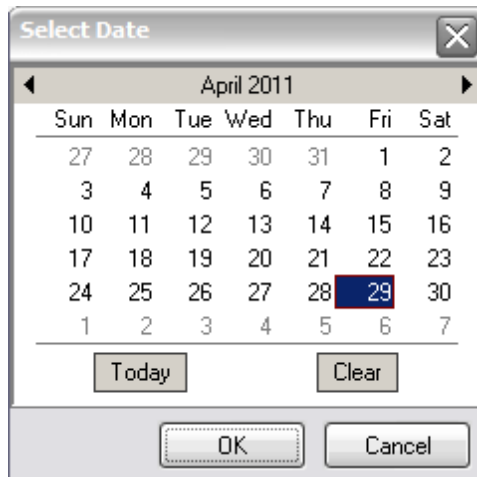
Clicking on [Cancel] will ignore to populate any value into a variable, such as vDate. Pre-Defined value, if used, will not be overwritten.

```
-- Example 04 (Dynamic Approach using Global Variables)
SET VAR vDate DATE = NULL
SET VAR vCaption TEXT = 'Select Date'
SET VAR vCalendarType TEXT = 'ENHANCED'
SET VAR vThemeName TEXT = 'XP Grey Scale'
SET VAR vQuotes = (CVAL('QUOTES'))
```

```

SET VAR vString TEXT = +
('SET VAR vDate = (GETDATE('+vQuotes+.vCaption+ +
'|CALENDAR_TYPE'+.vCalendarType+ +
'|THEMENAME'&.vThemeName+.vQuotes+'))')
&vString
CLEAR VARIABLE vCaption,vCalendarType,vThemeName,vQuotes,vString
RETURN

```



Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.3.10428 or higher)

15.13 Using the FORMAT Function with .#NOW

Technically, you can use FORMAT anywhere that you can use a function. The result of the FORMAT function is always text. In the syntax for this function, value is the value you want to be displayed in a particular format; it can be a column, variable, or a constant value. 'Picture-format' is the picture format you establish.

In a command file, the FORMAT function can be useful in several ways; such as, aligning decimals, punctuating long numbers, formatting currency, and formatting text for CHOOSE, DIALOG, and PAUSE commands.

A beneficial example using FORMAT, for creating dynamic and unique file names based on the current date and time, would be useful to any user/developer that requires the ability to make an unattended timely backup of your live database.

The following FORMAT function examples can be used to create a dynamic file name based on .#DATE, .#TIME or .#NOW.

Let's say if you are already connected to the RRBYW16 database and would like to implement a routine to backup the entire database (even in a multi-user environment) on demand.

Here's a simple routine to create a unique file name:

```

-- Example 01: (Using .#DATE and .#TIME as two separate variables)
CLS
CLEAR VARIABLES vDateTxt,vTimeTxt,vFileName
SET VAR vDateTxt TEXT = NULL
SET VAR vTimeTxt TEXT = NULL
SET VAR vFileName TEXT = NULL
SET VAR vDateTxt = (FORMAT(.#DATE,'MMDDYYYY'))

```

```

SET VAR vTimeTxt = (FORMAT(.#TIME, 'HHMM'))
SET VAR vFileName = +
((CVAL('DATABASE'))+'_'+vDateTxt+'_'+vTimeTxt+'.BKP')
CLEAR VARIABLES vDateTxt, vTimeTxt
RETURN
-- vFileName will return the text variable as:
-- RRBYW16_12302008_1630.BKP
-- Database Name, Date and Time will vary on your end

-- Example 02: (Using .#DATE and .#TIME as one variable in expression)
CLS
CLEAR VARIABLES vFileName
SET VAR vFileName TEXT = NULL
SET VAR vFileName = +
((CVAL('DATABASE'))+'_'+(FORMAT(.#DATE, 'MMDDYYYY'))+ +
'_'+(FORMAT(.#TIME, 'HHMM'))+'.BKP')
RETURN
-- vFileName will return the text variable as:
-- RRBYW16_12302008_1630.BKP
-- Database Name, Date and Time will vary on your end

-- Example 03: (Using .#NOW) - Short and Swift
CLS
CLEAR VARIABLES vFileName
SET VAR vFileName TEXT = NULL
SET VAR vFileName = +
((CVAL('DATABASE'))+'-' + (FORMAT(.#NOW, 'MMDDYYYY_HHNN'))+'.BKP')
RETURN
-- Notice the "NN" for minutes when using .#NOW (not a typo)
-- vFileName will return the text variable as:
-- RRBYW16_12302008_1630.BKP
-- Database Name, Date and Time will vary on your end

```

Now that you have successfully created a unique file name, you may use the following routine to make a backup of your live database, on demand!

Here's how:

```

OUTPUT .vFileName
UNLOAD ALL
OUTPUT SCREEN

```

The resulting two files will be created in the same folder, unless a different folder name is specified:

1. RRBYW16_12302008_1630.BKP
2. RRBYW16_12302008_1630.LOB

Supported Versions:

- R:BASE 7.6 for Windows (Build: 7.6.5.31229 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.5.31229 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.19.31229 or higher)
- R:BASE eXtreme (v9) for Windows (Build: 9.0.1.11229 or higher)

15.14 Using the LISTOF Function for Large Data

Did you know that you can use VARCHAR data type to retrieve large dataset when using the (LISTOF (colname)) function?

Syntax:

```
SELECT (LISTOF(colname)) IN TableViewName

SELECT (LISTOF(colname)) INTO varname INDIC ivarname FROM tblviewname
```

Note: Use WHERE clause to limit the resulting data, if necessary.

The (LISTOF(colname)) function creates a text string of the matched values separated by the current comma delimiter character.

The LISTOF function can be used with the "SELECT ... INTO ..." to populate a variable with a list of values which can then be used in a CHOOSE command with the #LIST option. It can also be used in Forms, Reports or Labels to look up values from multiple rows.

By default, the (LISTOF(colname)) function returns a NOTE data type and notes are limited to 4K. However, if you need to retrieve a large data set to build a dynamic CHOOSE command, Dynamic ListView, or even Dynamic ListBox, now you can use the VARCHAR data type to achieve your goal.

Example 01:

```
CONNECT RRBYW15
SET VARIABLE vResult VARCHAR = NULL
SELECT (LISTOF(CompDesc)) IN Component
```

Example 02:

```
CONNECT RRBYW15
SET VARIABLE vResult VARCHAR = NULL
SELECT (LISTOF(CompDesc)) IN Component WHERE CompDesc CONTAINS 'Box'
```

Example 03:

```
CONNECT RRBYW15
SET VARIABLE vResult VARCHAR = NULL
SELECT (LISTOF(CompDesc)) INTO vResult INDIC ivResult FROM Component
SHOW VARIABLE vResult
```

Example 04:

```
CONNECT RRBYW15
SET VARIABLE vResult VARCHAR = NULL
SELECT (LISTOF(CompDesc)) INTO vResult INDIC ivResult FROM +
    Component WHERE CompDesc CONTAINS 'Box'
SHOW VARIABLE vResult
```

Supported Versions:

- R:BASE 7.6 for DOS (Build: 7.6.4.30819 or higher)
- R:BASE 7.6 for Windows (Build: 7.6.4.30819 or higher)
- R:BASE C/S:I 7.6 for Windows (Build: 7.6.4.30819 or higher)
- R:BASE Turbo V-8 for Windows (Build: 8.0.18.30819 or higher)
- R:BASE eXtreme for Windows (Build: 9.0.1.30819 or higher)

Part



16 R:Compiler

16.1 Customizing the Load Window in Compiled Applications

When compiling your application, you have the option (check box) to "Show Loading Window" which permits the ability to display a progress window while the program is loading. The available field is used to enter a custom message for the progress dialog window.

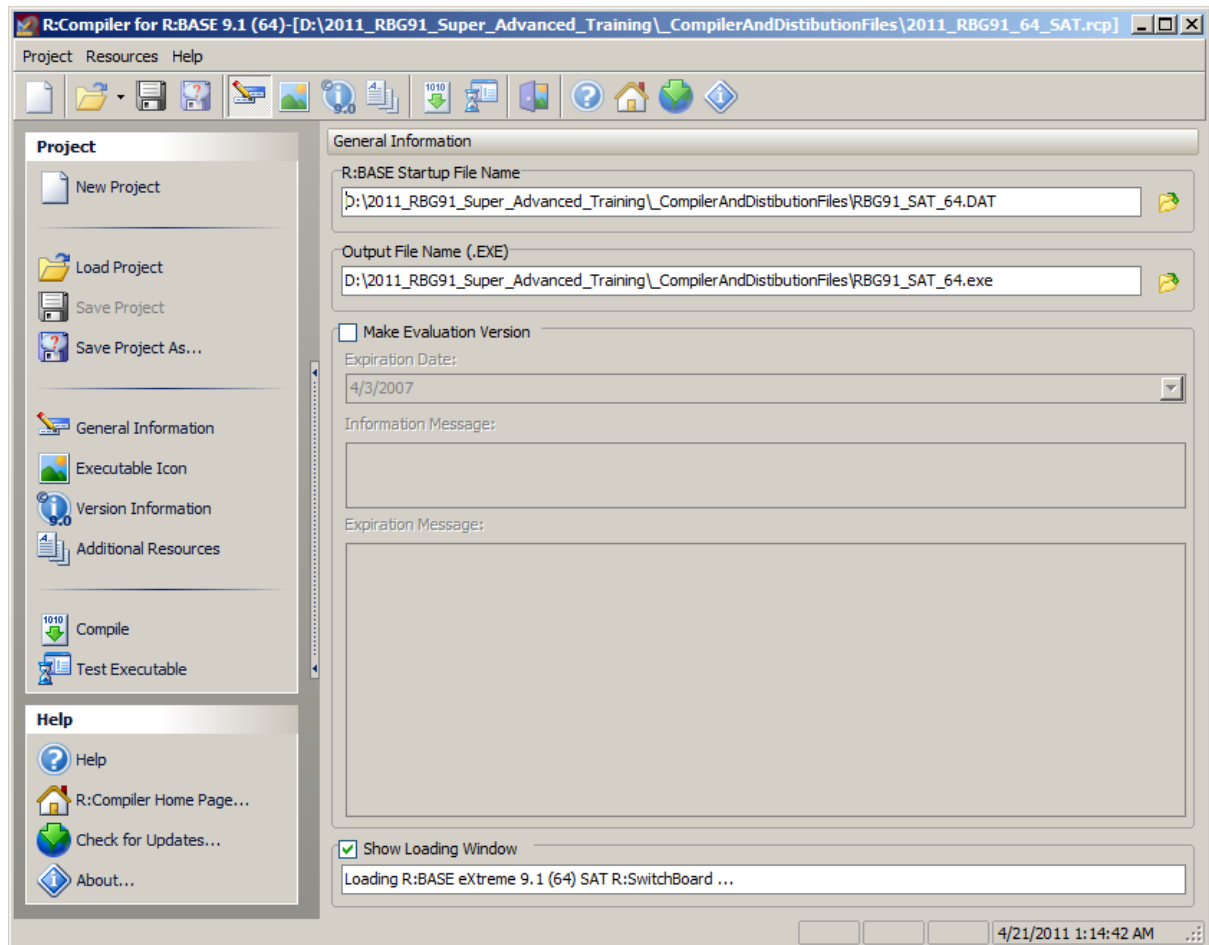
With this feature available to the compiled program, there are three additional PROPERTY command parameters which you can use to display customized load window:

```
PROPERTY LOADWINDOW TITLE 'Your Message Here'  
PROPERTY LOADWINDOW PROGRESS nnn (0-100)  
PROPERTY LOADWINDOW CLOSE 'TRUE'  
PROPERTY LOADWINDOW CAPTION 'Your Caption'
```

Did you know that you can use the new LOADWINDOW SHOWINDICATOR parameters to display moving circle (indicator) along with your custom message?

Here's how:

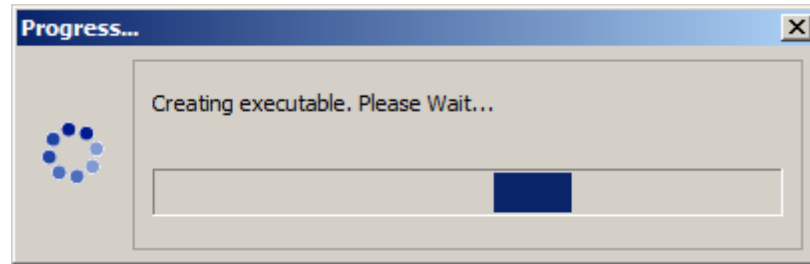
01. While customizing your project using R:Compiler 9.1 (32/64), make sure to enable the option for "Show Loading Windows"



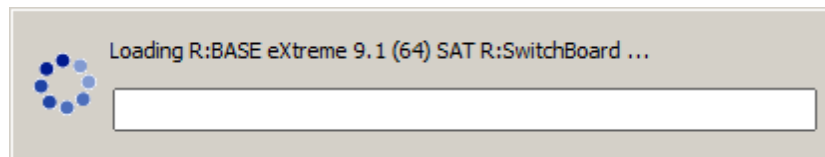
02. Customize the application DAT file to include the following PROPERTY command:

```
PROPERTY LOADWINDOW SHOWINDICATOR 'TRUE'  
RETURN
```

03. Compile your application.



04. Once the application is compiled successfully, run the .exe file and notice the Load Window with moving circle (Indicator).



05. Finally, use the following PROPERTY command as "On After Start" EEP for your main application form to close the loading window.

```
-- On After Start Custom EEP  
SET VARIABLE vCompiled TEXT = NULL  
GETPROPERTY APPLICATION IsCompiled vCompiled  
IF vCompiled = 'YES' THEN  
PROPERTY LOADWINDOW CLOSE 'TRUE'  
ENDIF  
CLEAR VARIABLE vCompiled  
RETURN
```



Have fun implementing new features & enhancements of R:Compiler 9.1!

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.3.10414 or higher)

16.2 Displaying a Load Window

Did you know that you can display a "Load Window" with your own custom message, while your compiled application is being loaded?

When compiling your cool R:BASE for Windows application, a check box is displayed for "Show Loading Window". If the check box is checked, R:Compiler will display a progress window while the application is loading.

The available field can be used to enter your own custom message for the progress dialog window.

With this new enhancement, we now have 3 more property commands:

```
PROPERTY LOADWINDOW TITLE 'Your message here ...'
PROPERTY LOADWINDOW PROGRESS nnn (0-100)
PROPERTY LOADWINDOW CLOSE 'TRUE'
```

These PROPERTY commands are supported for R:Compiler ONLY.

16.3 Distributing R:Compiler Applications

When re-compiling and distributing your application, you also have to make sure that you include the *latest* R:BASE engine files, included with the R:Compiler update.

For a typical codeless application (when all your code is embedded as custom EEP in forms, reports, and labels, nothing outside...), a compiled application should include the following files:

R:BASE 7.6:

1. YourCompiledApplication.EXE
2. Four Database Files (.RB1-.RB4)
3. RB76IO.DLL
4. RBENGINE76.CFG
5. RBENGINE76.DLL
6. RBThemes.DLL
7. Custom help file(s), if used in your application
8. Moving GIFs, if referenced in your PAUSE/DIALOG
9. * Custom Plugin(s), if used in your application
10. * R:Chart files (.RBC)/Plugin, if used
11. * R:Mail files, if used in your application
12. * R:PDFMerge Plugin, if used in your application
13. * R:FTPClient Plugin, if used in your application
14. * R:Magellan Plugin, if used in your application
15. * R:ReadyRoute Plugin, if used in your application

* = Subject to version and license purchased.

R:BASE V-8 Turbo:

1. YourCompiledApplication.EXE
2. Four Database Files (.RX1-.RX4)
3. RB80IO.DLL
4. RBENGINE8.CFG
5. RBENGINE8.DLL
6. RBThemes.DLL
7. Custom help file(s), if used in your application
8. Moving GIFs, if referenced in your PAUSE/DIALOG
9. * Custom Plugin(s), if used in your application
10. * R:Chart files (.RBC)/Plugin, if used in your application
11. * R:Mail files, if used in your application
12. * R:PDFMerge Plugin, if used in your application
13. * R:FTPClient Plugin, if used in your application
14. * R:Magellan Plugin, if used in your application
15. * R:ReadyRoute Plugin, if used in your application

* = Subject to version and license purchased.

16.4 Is the Running Application Compiled or Not?

When you design and then deploy totally automated R:BASE 7.6 or Turbo V-8 applications, there may be an option for a few users, including yourself, to return to the R:BASE Database Explorer or R> Prompt window. That's fine if your application was started using a full version of R:BASE for Windows.

What happens when you have distributed your cool application using R:Compiler?

You may wish to keep all menu options, and make the optional "Database Explorer, R> Prompt" invisible if the application

is using the compiled version of R:BASE. This feature can be achieved without creating separate menus for development and distribution.

Within R:BASE, you may use the "ISCOMPILED" property parameter to capturing whether the application "is compiled" or not. to take advantage the latest versions of R:BASE.

Here's how:

1. Assign a <ComponentID> to a button or menu item of a tree or drop-down menu, such as 'DBExplorer'.
2. Use the following code as "On After Start" Custom EEP.

```
CLEAR VARIABLE vCompiled
SET VARIABLE vCompiled TEXT = NULL
GETPROPERTY APPLICATION ISCOMPILED vCompiled
IF vCompiled = 'YES' THEN
    PROPERTY DBExplorer VISIBLE 'FALSE'
ENDIF
CLEAR VARIABLE vCompiled
RETURN
```

The GETPROPERTY APPLICATION ISCOMPILED varname will return the value of YES or NO.

16.5 Reloading Resource Files

File resources can be added to your R:Compiler for R:BASE compiled executable projects.

File resources can include:

- External Forms (.rff)
- R:BASE Plugins (.rbm)
- R:BASE Command Files (.dat, .rmd, .cmd, .app, .eep, .vie, .frm, .rpt, .lbl, .str, .all, .lst, .tbl)
- R:Charts chart files (.rbc)
- R:BASE Gateway Import/Export Specification files (.rgw)
- R:Mail Editor Templates (.rmt)

Did you know that you can simply reload, or update, file resources without having to delete and re-add the resource?

As file resources will change over time, an option to update the file resource is now available. Here's how for Plugins:

01. Open R:Compiler, and select the "Additional Resources" option.
02. Choose the "Plugins" tab, select the appropriate Plugin that needs updated, and click on the "Update Plugin" button.

Here's how for Miscellaneous Files:

01. Open R:Compiler, and select the "Additional Resources" option.
02. Choose the "Misc. Files" tab, select the appropriate file that needs updated, and click on the "Update File" button.

Here's how for External Forms:

01. Open R:Compiler, and select the "Additional Resources" option.
02. Choose the "External Form Files" tab, select the appropriate external form file, and click on the "Update External Form File" button.

As the resource file is listed within R:Compiler, it will assume that the stored location for the file has not changed.

Supported Versions:

- R:BASE eXtreme 9.1 (32/64) (Build: 9.1.4.11012 or higher)

16.6 Saving/Recycling R:Compiler Projects

Did you know that you can now "Save" all settings of your R:Compiler projects, such as, General Properties, EXE-File Icon and Customized Version Information to a file?

The latest update of R:Compiler 7.5, 7.6, and Turbo V-8 includes the features: "Save Project", "Save Project As..." and "Open Project...".

This will help manage different versions of compiled applications and recycle custom details, etc., for your application updates.

Part

XVI

17 R:Charts

17.1 Dynamically Assigning R:Charts' Tables/Views

By design, each series used in R:Charts is associated with a table or view. The designated table or view is stored with the resulting R:BASE Chart (.RBC) file.

In development, there can be instances where you would like to recycle that cool chart with the exact same column names but with a different table or view, without copying or re-designing a whole new chart. Did you know that you can dynamically change the assigned table or view name for a chart already designed in R:Charts 7.6 and 8.0?

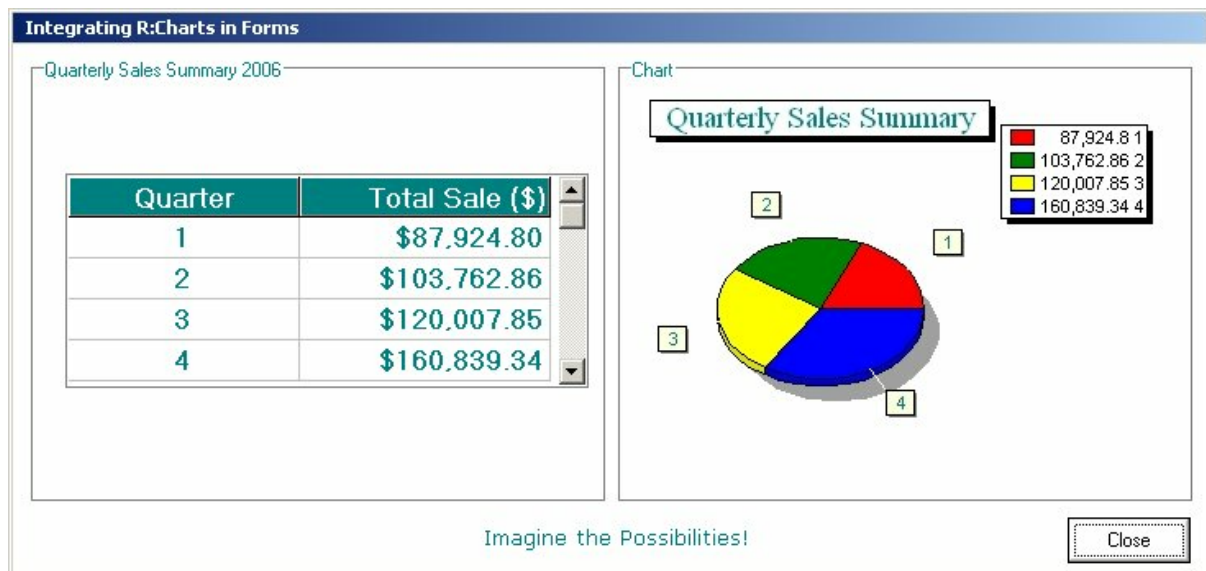
Using the latest versions and updates of R:BASE and R:Charts (7.6 and 8.0) for Windows, now you can use the additional parameter of "**SERIES_TABLE[n] tableviewname**" to dynamically change the assigned table or view name for any series used in R:Charts, where [n] represents the specific table or view listed in the series.

Example 01:

The R:Chart file (Quarterly_DonutChart.RBC) is based on a QuarterlySummary view in RRBYW14. To print this chart on a form, the following command is used as a "Before Start" EEP.

```
-- On Before Start EEP in Forms
PLUGIN RCharts76.RBL +
FILENAME Quarterly_DonutChart.RBC +
|SAVE_TO_JPG Quarterly_DonutChart.jpg +
|IMAGE_WIDTH 324 +
|IMAGE_HEIGHT 244
SET VAR vImage = 'Quarterly_DonutChart.jpg'
RETURN
```

The results displayed is:



Example 02:

To use that exact Quarterly_DonutChart.RBC chart with a different view QuarterlySummary07 in a different form in RRBYW14, use the following command as a "On Before Start" EEP.

```
-- On Before Start EEP in Forms
PLUGIN RCharts76.RBL +
FILENAME Quarterly_DonutChart.RBC +
|SAVE_TO_JPG Quarterly_DonutChart.jpg +
|IMAGE_WIDTH 324 +
|IMAGE_HEIGHT 244 +
|SERIES_TABLE[0] QuarterlySummary07
SET VAR vImage = 'Quarterly_DonutChart.jpg'
RETURN
```

The results displayed is:



Supported Versions:

- R:BASE 7.6 (Build 7.6.2.30102 or higher) for Windows
- R:BASE C/S:I 7.6 (Build 7.6.2.30102 or higher) for Windows
- R:BASE Turbo (Build 8.0.16.30102 or higher) for Windows
- R:Charts 7.6 (Build 7.6.2.30102 or higher) for Windows
- R:Charts 8.0 (Build 8.0.16.30102 or higher) for Windows

Part



18 Oterro

18.1 Checking Version and Build of Oterro

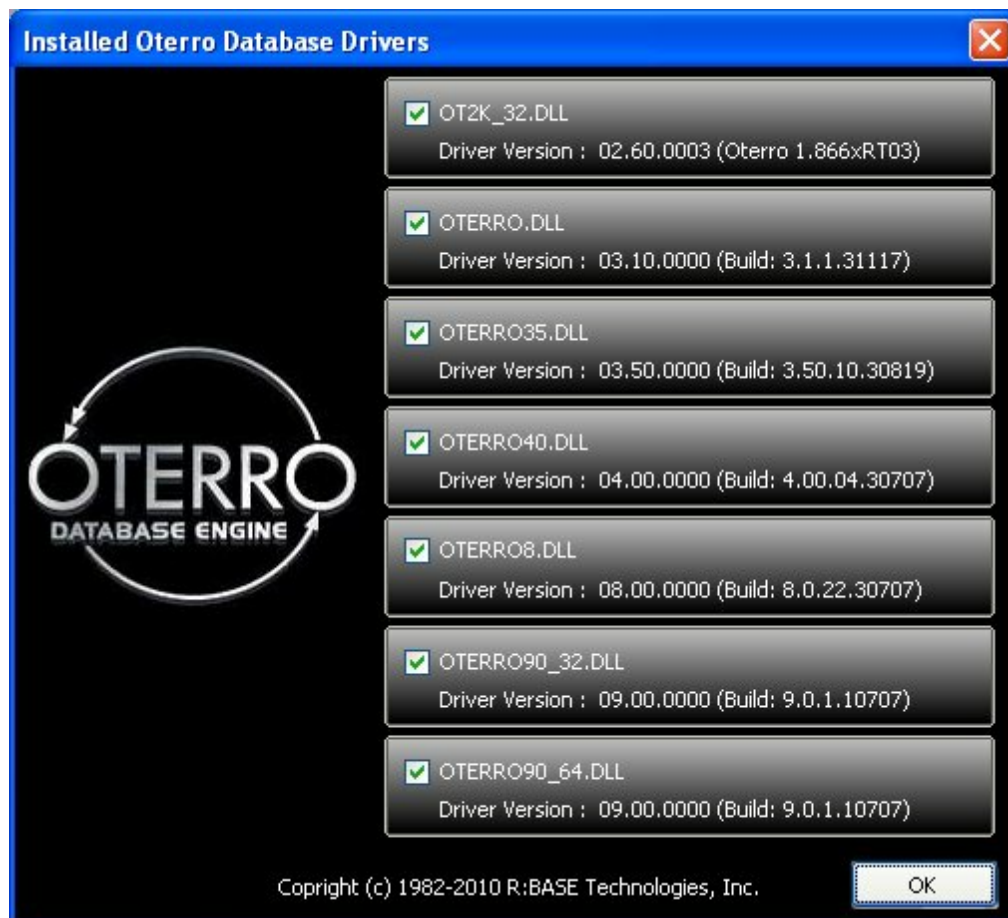
With various versions of Oterro installed on your Network Server, Workstation, Notebook, or Tablet PC, it may be helpful to know the exact version and build of installed version(s) of Oterro.

Did you know that you use the "CheckVer" utility installed in the default installation folder of Oterro?

After installing/updating the latest version of Oterro, you will find the enhanced "CheckVer" utility that will illustrate all installed versions of Oterro ODBC drivers, including the file name, driver version and build of Oterro.

Specific versions are installed in appropriate folders, such as:

```
\RBTI\Oterro40  
\RBTI\Oterro80  
\RBTI\Oterro90_32  
\RBTI\Oterro90_64
```



18.2 Configuring Oterro and R:BASE ODBC Drivers on 64-bit OS

If you are running any of the R:BASE products above on MS XP (64), Vista (64), Win 7 Professional (64), or Windows Server 2003/2008 (64), you may need to tweak the registry settings to recognize installed R:BASE and Oterro ODBC settings and installed drivers.

Typically, using the full installer, after a successful installation of R:BASE/Oterro, you would expect the R:BASE/Oterro ODBC drives to be listed under the Drivers for ODBC Data Source Administrator panel. Well, by default, on all XP (64), Vista (64), Windows Server 2003 (64), and Windows Server 2008 R2 x 64 with Service Pack 2 machines, the installed ODBC Drivers list is empty. There are no drivers listed, even for Microsoft's own default drivers.

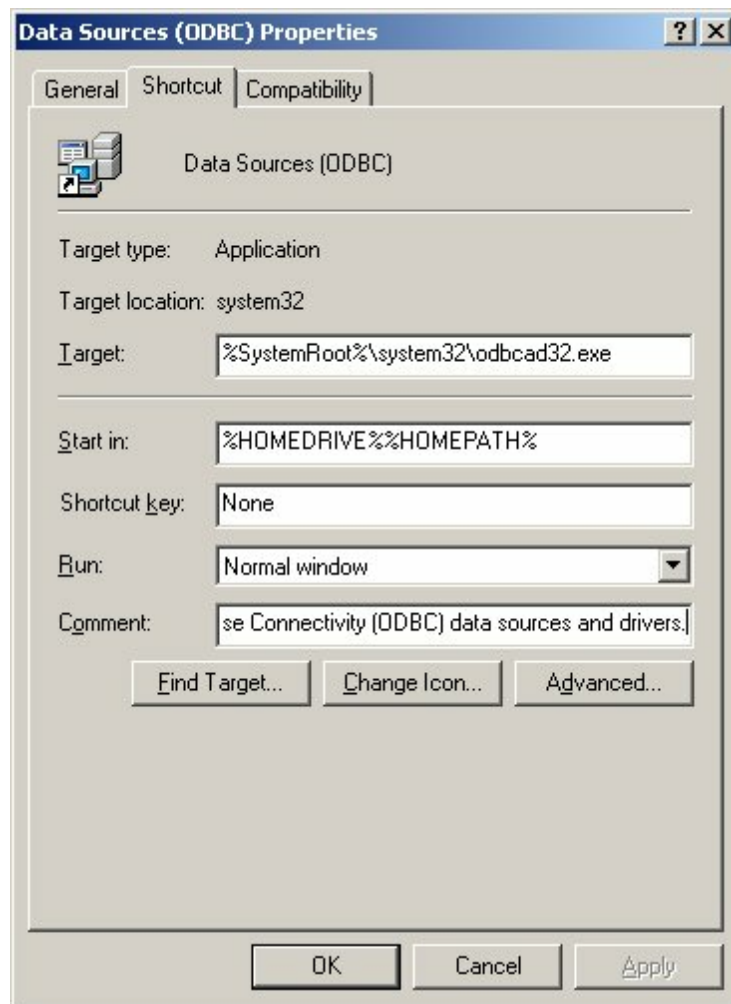
The reason the installed drivers are not listed is the way Windowsx64 editions operate with the ODBC drivers. On Windows x64 editions, all ODBC drivers are installed in the "%SystemRoot%\SysWOW64" folder.

However, the default ODBC Data Source Administrator that is available through the Administrative Tools or Control Panel in Windows x64 Editions is located in the "%SystemRoot%\system32" folder, and only searches this folder for ODBC drivers.

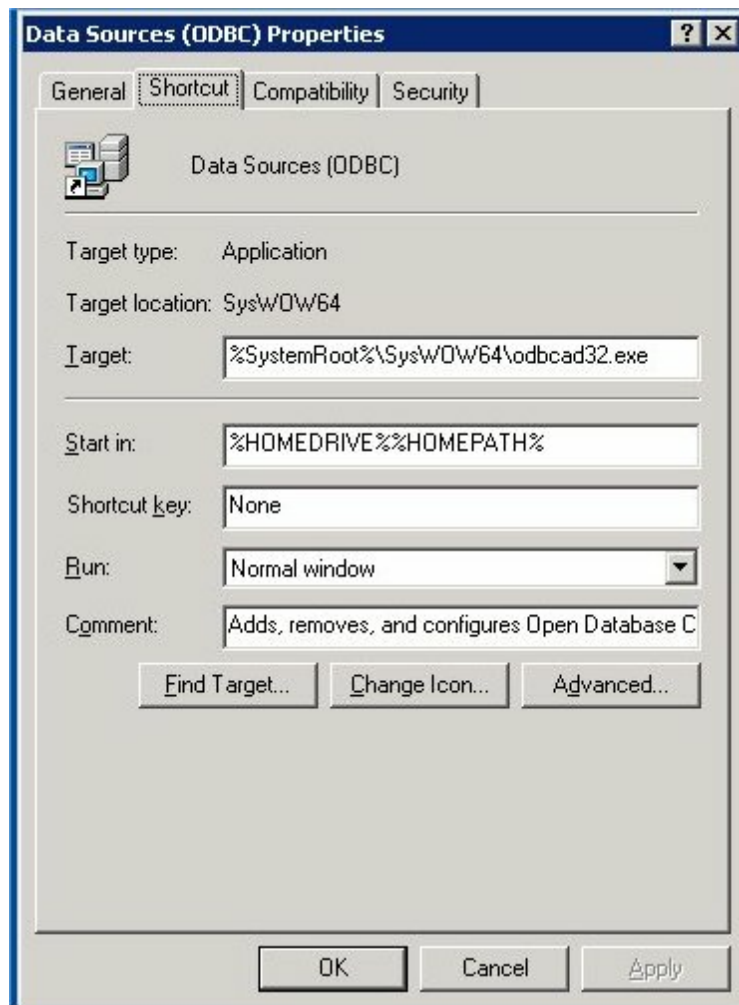
To alter this behavior on Windows x64 editions, you should update the target information for shortcut properties of the ODBC Data Source Administrator tool to reflect "%SystemRoot%\SysWOW64\odbcad32.exe".

This will correctly locate and list all installed ODBC drivers as well as enable you to create a System DSN or should be recognized when using the DSN-Less connection.

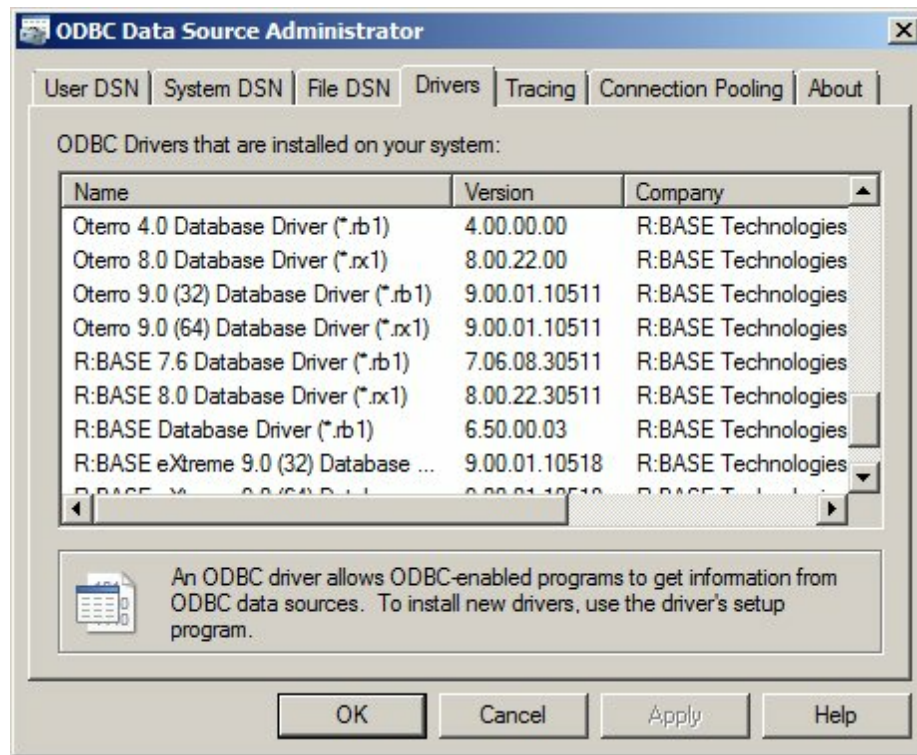
Default Properties for ODBC Data Source Administrator



Modified Properties for ODBC Data Source Administrator



Installed ODBC Drivers on Server 2003 R2 x64 SP2 machines



Have fun running R:BASE (7.6, V-8, 9.0) and Oterro (4.0, 8.0, 9.0) on Windows XP (64), Vista (64), Win 7 Professional (64), Win Server 2003 R2 x64, and Win Server 2008 (64) operating systems!

Supported Versions:

- R:BASE 7.6 for Windows
- R:BASE Turbo V-8 for Windows
- R:BASE eXtreme 9.0 (32)
- R:BASE eXtreme 9.0 (64)
- Oterro 4.0
- Oterro 8.0
- Oterro 9.0 (32)
- Oterro 9.0 (64)

Part

XIX

19 Feedback

Suggestions and Enhancement Requests:

From time to time, everyone comes up with an idea for something they'd like their software to do differently. This is true of all applications, no less R:BASE.

If you come across an idea that you think might make a nice enhancement to R:BASE, your input is always welcome.

R:BASE eXtreme

Please submit your suggestion and/or enhancement request to the R:BASE eXtreme Developers' Corner Crew (R:DCC) and describe what you think might make a nice enhancement. In R:BASE eXtreme, the RBG9 R:DCC Client is fully integrated to communicate with the entire development team of R:BASE eXtreme. From the main Menu Bar, choose "Help" > "RBG9 R:DCC Client".

Unless additional information is needed, you will not receive a direct response. You can periodically check the status of your submitted enhancement request accordingly.

Index

- # -

#DATE 259
 #NOW 11, 34, 259
 #TIME 259
 #WHERE 247, 248

- \$ -

\$\$\$ 11, 42, 46, 233

- % -

% 250

- . -

.LOB 218

- 6 -

64-bit 273

- A -

Action 12, 38
 After Generate 153
 Before Generate 153, 154
 On Before Design 46, 154
 Reports 154
 Action Designer 118
 Actions
 On Before Design 98
 ActiveX 90, 122
 ALTER TABLE 216
 angle 187, 198, 200
 arrow 187
 ASCII 212
 Average 75
 avi 181

- B -

background color 94, 125
 balloon 42
 Band List 108
 bay 181
 BCC 83
 binary 207
 BITNOTE 212
 BLOB 181, 203, 207
 Blob Editor 22, 69, 100, 181, 202, 203, 207, 212, 213
 bmp 181
 Box 187, 190
 BROWSE 58, 69
 EXPORTRESULT 76
 NOCHG 76
 PRINTDATA 76
 ROWVIEW 76
 SAVERESULT 76
 BRUSH_STYLE 161
 BSTR 206
 button
 caption 93
 hidden 124
 Speed Button 124

- C -

Calculate 75
 Calculate On 149
 Calculator 239
 calendar 129
 caption 93, 212
 CASCADE 216
 CASE 45
 CC 83
 CFG 18
 CFG file 41
 Changing Table Structure 49
 CheckBox
 DB 129
 Variable 129
 Checking Version 273
 CHKCUR 255
 CHKFUNC 254

CHKVAR 255
CHOOSE 247, 248, 261
CLEAR 222
clear table locks 222
Clipboard 52
closing R:BASE 50
CLS 53, 153
COLLATE 45
Color 10, 31
Color Adjust 181
column 101
 reorder 66
COLUMN_COUNT 166
Command History 52
Comment 172
component id 12, 41, 84
Compute 75
configuration 18
CONNECT 18, 29, 261
CONTAINS 92
continuation character 52
control code 162
Control Properties 59
ControlType 17
convert 218
Copying Forms 9
Copying Labels 9
Copying Reports 9
CopyToClipboard 88
Count 75
cr2 181
CREATEOBJECT 17, 89, 118
CrossTab 148, 150
crw 181
cur 181
cursor focus 125
custom colors 21
Custom EEP 12
Custom EEPs 82, 94
Custom Form Action 146
custom form actions 86, 118
Customize Filters 112
CutToClipboard 88
CVAL 13, 23, 242
 BUILD 252
 EDITOR 174
 LINES 215
 PORTS 252

ROWCOUNT 215
SGET 252
CVTYPE 253

- D -

Data Browser 58, 69, 75
Data Designer 66, 216
Data Dictionary 2, 10, 16, 17, 22, 31, 36, 117
Database Explorer 55, 59, 62
Database Settings 2
Date/Time 24
Date/Time Picker 86
DB Email Label 83
DB Grid 91, 94, 95, 103, 104, 110, 129
 column properties 91
DB Lookup ListView 133
DB Memo 100, 156
DB Navigator 118
DB TreeView 129
dcr 181
dcx 22, 181
DECLARE 237
default
 paper size 42
 paper source 42
 printer 42
default font 213
default page 213
DELETEOBJECT 89
DELFUNC 254
Deploy 11
DIALOG 222, 247
 DIALOG_EDIT_HINT 229
 POPOP_DIALOG_TYPE 229, 239
 POPOP_ENABLED 229, 239
dib 181
digital clock 120
DIR 242
Directory Tree 141
disable 44
display format 139
distributing applications 266
DLCALL 254
DLL 39
document 104, 155
documenting 12
DOWN 116

drag and drop 112
 DRAGDROPPABLE 112
 driver 273
 drivers 273
 DROP ALL 240
 Duplicates 75
 DURATION 156

- E -

ECHO 44
 Edit 58
 EDITOR 174
 EEP 82, 104, 115, 143, 155, 163
 EEPs
 On Mouse 138
 Effects 181
 Ellipse 187, 192
 email 37
 emf 181
 encrypt 228
 Engine 39
 Enhanced DB Grid 92, 108, 110, 112
 Enhanced Groupbox 117
 Enhanced Tab Control 115
 enterprise edition 2, 15
 EQUAL 92
 Error List 178
 errors 178
 Excel Workbook 168
 EXPORT 166, 168
 EXPORTRESULT 69
 Expression Builder 87, 149
 Expressions 60
 extended colors 31
 External Themes 22

- F -

F3 16
 fax 181
 feedback 278
 FETCH 237
 File ListBox 141
 file names 55
 file properties 217
 Files In Use 39

Filter Bar 92, 110
 Find 59, 60
 Find in Control Properties 59
 Find in Expressions 60
 FOOTER_TEXT 166
 foreign keys 232
 form preview 57
 FORMAT 259
 Forms 24
 Function 256

- G -

g3f 181
 g3n 181
 gamma correction 199
 GATEWAY 166, 167, 168
 GAUGE 153
 GetCommonFolder 8
 GETDATE 257
 GETPROPERTY 20, 41, 108, 110, 115, 122, 141,
 148, 153, 163, 250
 APPLICATION 266
 REPORT 156, 159
 GETVAL
 GetLock 253
 gif 22, 181
 global variables 46
 gradient 104
 GROUINDEX 116
 GUID 13

- H -

HEADER_TEXT 166
 HELP 224
 Hex 207
 hint 42, 146
 hint expression 95
 hot key 52, 53
 hot keys 112

- I -

icb 181
 ico 181
 icon 42, 212

IDQUOTE 166
IDQUOTES 218
IFWINDOW 255
image 181
 multipage 22, 181, 207
Image Annotation 187, 188, 190, 192, 193, 195,
197, 198
images 129, 133
Import 166, 167
INT 215
Integer 31
Integer Value 10
IsInternetConnected 250
ISTR 254

- J -

j2c 181
j2k 181
jif 181
jp2 181
jpc 181
jpe 181
jpeg 181
jpg 181

- K -

key combination 35

- L -

Labels 24
launch directory 58
LEFT 247
LIKE 92
Line 187, 188
LIST 254
 CASCADE 233
 FKEYS 232
 PKEYS 232
 UKEYS 232
LISTOF 261
LJS 66
Load 52, 156
load file 217
load window 265

LoadFileNamePlusPlus.rbl 217
LOADWINDOW 263
LOB 181, 202, 207
location 199

- M -

machine code 162
Magnifying Glass 35
maintenance 18
MANY 250
MAPI 37, 83
margin 199
MARGIN_BOTTOM 216
MARGIN_LEFT 216
MARGIN_RIGHT 216
MARGIN_TOP 216
margins 216
Maximum 75
MDI 62
MDI Window 58
Media Player 122
Memo Editor 156
Memo Object 156
Menu Bar 88
Message Body 83
milliseconds 18
Minimum 75
MP3 247
mpeg 181
mpg 181
mrw 181
msstyles 22
multi-select 142
multi-tab 168

- N -

Name 10
nef 181
NOCHG 69
NOTE 22, 181, 202, 207, 219

- O -

Object Inspector 14, 15
ODBC 215, 273

ODBC Data Source Administrator 273
 ON CONNECT 240
 On Key Press 143
 On Roll Down 94
 On Roll Up 94
 Open Table 58
 operating system folders 8
 optimization
 WHILE loops 237
 orf 181
 Oterro 273
 OUTPUT 18, 29, 218, 228
 PRINTER 226

- P -

PACK 45, 249
 PasteFromClipboard 88
 PAUSE 42, 153, 247
 GAUGE 244
 pbm 181
 PCC Label 162
 pcx 181
 PDF 156, 159, 215
 pef 181
 Pen Style 161
 PEN_STYLE 161
 Personalize 45
 pgm 181
 Pick List 110
 pix 181
 PLUGIN 8, 13, 37, 90, 217, 219, 231, 245, 247
 Plugin Power Pack 8
 png 181
 Polyline 187, 197
 Pop-up menu 99, 100
 ppm 181
 PRESENTATION_MODE 156
 preview 21
 primary keys 232
 PRINT 151, 156, 159, 162, 216
 ARRANGE 160
 zoom percent 248
 Print Preview 199
 PRINTDATA 69
 printer tray 234
 PRNSETUP 224, 234, 241, 247

PROPERTY 12, 20, 22, 32, 38, 41, 83, 86, 88, 89,
 93, 100, 104, 108, 110, 112, 116, 118, 120, 122, 125,
 126, 127, 128, 148, 161, 163, 212, 233, 250
 APPLICATION 43
 LOADWINDOW 265
 MediaPlayer 90
 RBASE_FORM 140
 TABLE 86, 122
 psd 181
 PUT 80
 pxm 181

- Q -

QUIT TO 234

- R -

R:AudioPlayer 245
 R:BASE BLOB Editor 181, 202, 203, 207
 R:BASE Editor 173
 R:Charts 270
 R> Prompt 52, 53
 Radio Button 115
 RadioGroupbox 128
 raf 181
 raw 181
 RBA 12, 38
 RBBE 22
 RBBEDIT 222
 RBDEFINE 66
 RBEdit 174, 175
 RBTI_ 84, 121
 READONLY 69
 record number 103
 Registry 45
 RELOAD 249
 Renaming Database Explorer Objects 59
 Report
 Properties 159
 Report Actions 153, 163
 Report EEP 156
 Report Section 149
 Report/Label Designer Toolbars 151
 Reports 24
 RETURN 80
 RGB value 10, 31
 RGUID 13

Rich Text 203
RID3Tag.RBL 247
rle 181
Roll Up 94
Rotate 200
row size 231
Rows 75
RRowSize.RBL 231
RTF 159, 203, 219, 222
Ruler 187, 195
RUN 18, 175, 218, 234

- S -

SATTACH 215
Save 52
SAVERESULT 69
saving projects 268
SCALEBY 38, 140
scratch 42, 233
scratch files 11
script error 126
search 59, 60
Search Records 112
SELECT 215, 226, 261
select all 125
SET 242
 FEEDBACK 248
 LINES 226, 228
 NAMEWIDTH 228
 NULL 226
 PROGRESS 249
 SCRATCH 41, 46
 TRACE 48
 WIDTH 226, 228
SET FEEDBACK 29
SET NULL 29
SET TRACE 44
SET VAR 261
settings 42, 45, 233
Shape Object 161
Shape Style 161
SHORTNAM 242
SHOW 242
SHOW VAR 261
Show/Hide Grid Columns 112
SHOWINDICATOR 263
SHOWSECONDS 120

size 199
SLEN 66
SLOC 66
SLOCI 256
SLOCP 256
SMOVE 66
sort 160
Space 128
SPECIFICATION_FILE_NAME 166
Speed Button 116
sr2 181
srf 181
Standard Deviation 75
Startup options 49
status bar 101
stored procedures 80
STRIM 66
String Instances 256
Structure Toolbar 173
Sub-Report 158, 160
Sum 75
SYS_FORMS3 24
SYS_LABELS3 24
SYS_REPORTS3 24
system variable 84, 121, 148

- T -

Tab Order 127
table 101, 270
Tally 75
targa 181
TEMP 41
TEMPORARY 167
temporary table 98, 154, 215
TEXT 187, 193, 219
tga 181
Theme 224
THEMENAME 239
Themes 12, 22, 32, 151, 224, 247, 248
tif 22, 181
tiff 181
title 150
TMP 41
Toolbar
 Object List 142
TOP 247
TRACE 2, 44, 178

Trace Debugger 178
Transparent 117
Tree View 88
TreeView 126
triggers 80
TURBO 238
TWELVEHOURCLOCK 120

- U -

UNC path 41
Uncomment 172
Unicode 206
unique keys 232
UNLOAD 18, 29, 55, 218, 228
 Data 58
 Structure 58
unselect all 125
UPDATE 11
upgrade 29

- V -

Validate email address 66
Var Memo 100
VARBIT 22, 181, 207, 212
VARCHAR 22, 181, 202, 203, 207, 212, 219
Variable Email Label 83
Variable Lookup ListBox 125
Variable Lookup ListView 125, 133, 142
Variable Memo 156
variables 235
Variance 75
vda 181
version 24, 39, 273
view 270
vst 181

- W -

WALKMENU 43
Wallpapers 144
Warning 49
watermarks 159
wbmp 181
Web Browser 126
WHERE Builder 58

WHERE Clause 58
WHILE 237
wild card 250
wmf 181
wmv 181

- X -

x3f 181
xif 181
XLSW 166, 168

- Z -

zebra stripe 69
zoom 35

Back Cover