

What's New in **R:BASE 11** for Windows





R:BASE 11 for Windows

What's New

by R:BASE Technologies, Inc.

Welcome to R:BASE 11 for Windows!

R:BASE 11 is the new major release from R:BASE Technologies showcasing the latest advances for your databases and applications.

R:BASE 11 combines pure performance and high-tech features with a practical interface for users of all levels. R:BASE 11 users can achieve peak productivity to overachieve, outperform, and over-deliver on data management goals.

What's New in R:BASE 11

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First Edition

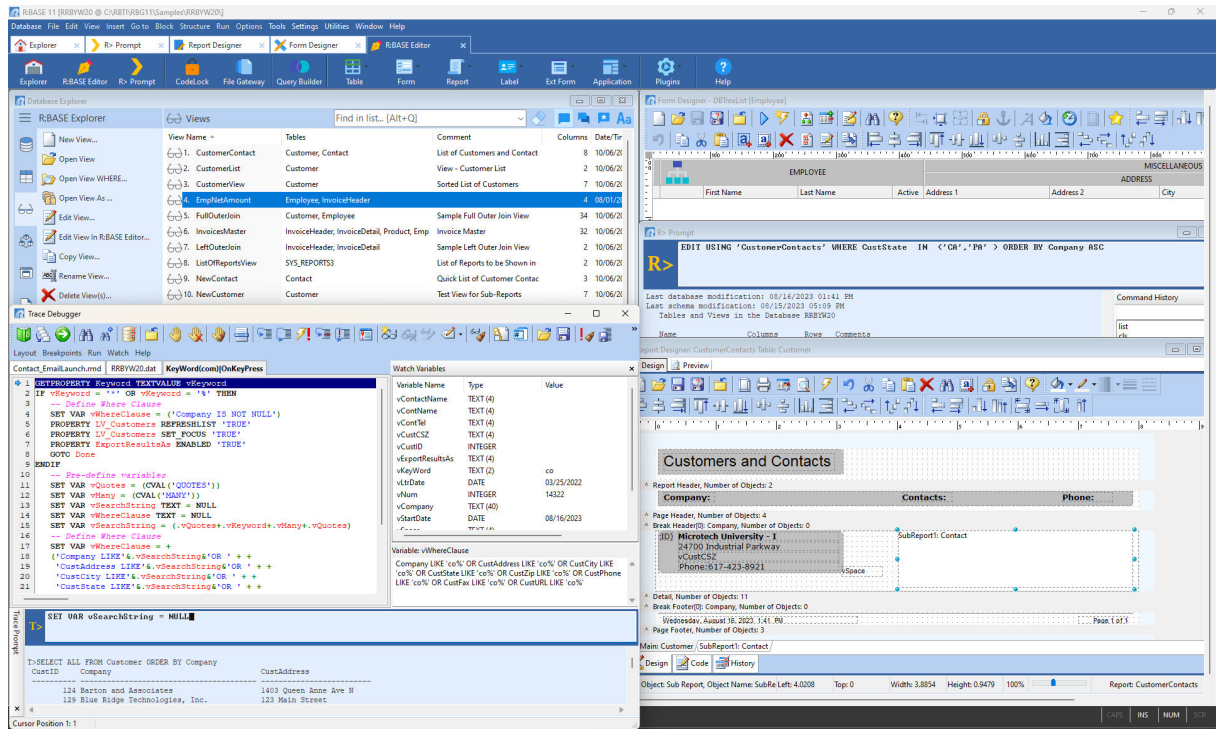
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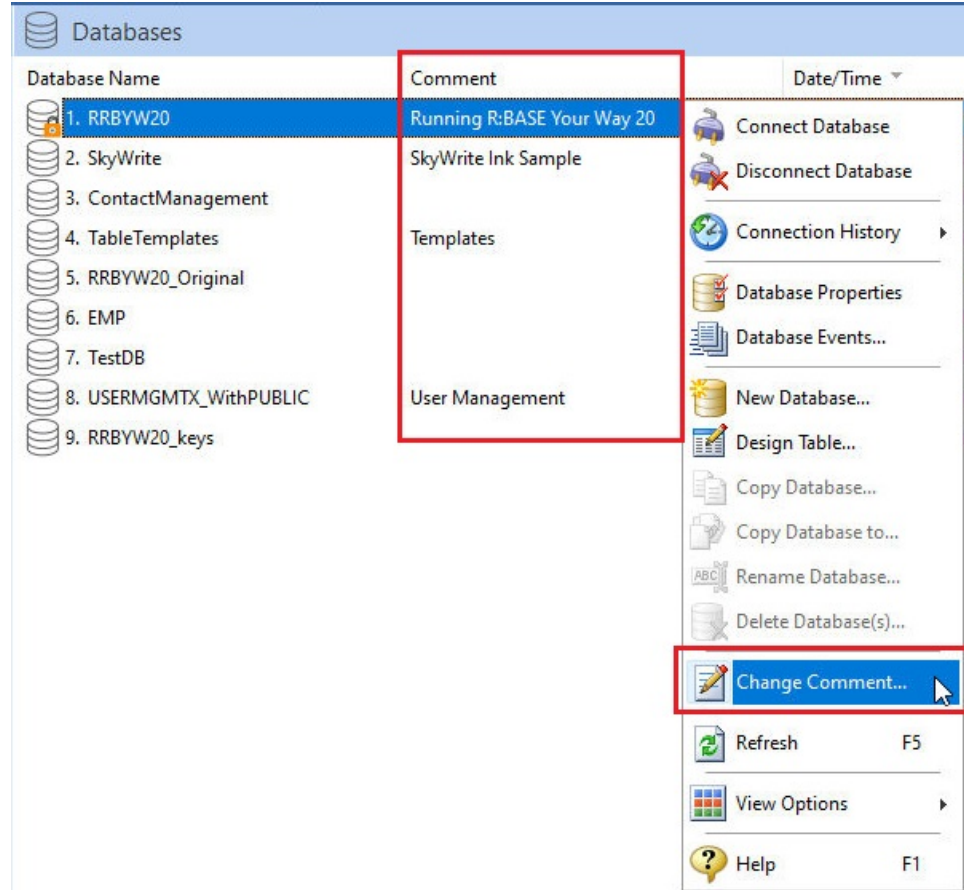
1 Global Environment

The following Version 11 features compliment several or all areas of the R:BASE development environment:

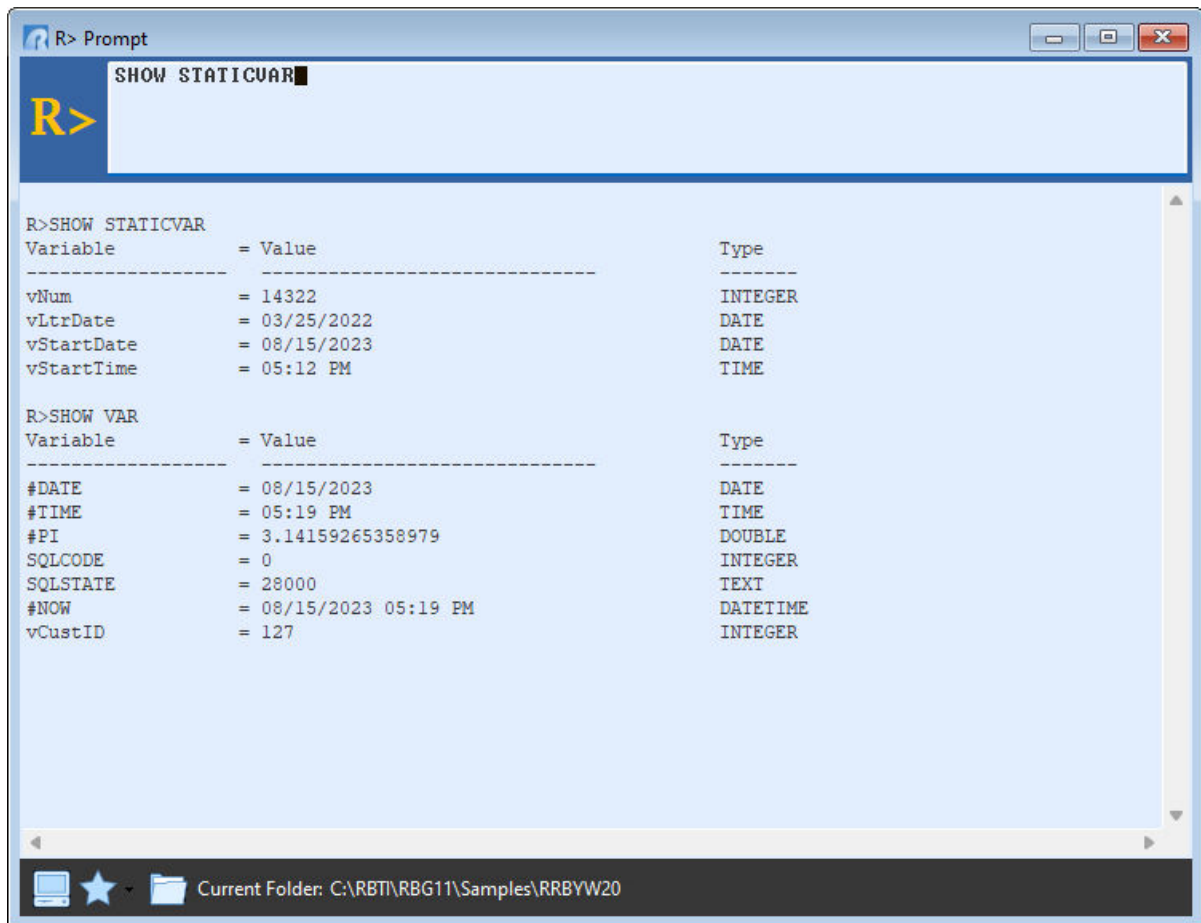
- Updated GUI for latest operating systems



- Enhanced NOTE data type to hold up to 10,000 characters
- New Database Comments (stored as notes within file 1), which are available for review at the Database Explorer, Data Dictionary, and Databases Properties



- New database stored static variables, which are automatically defined when the database is connected



The screenshot shows the R> Prompt window with the following content:

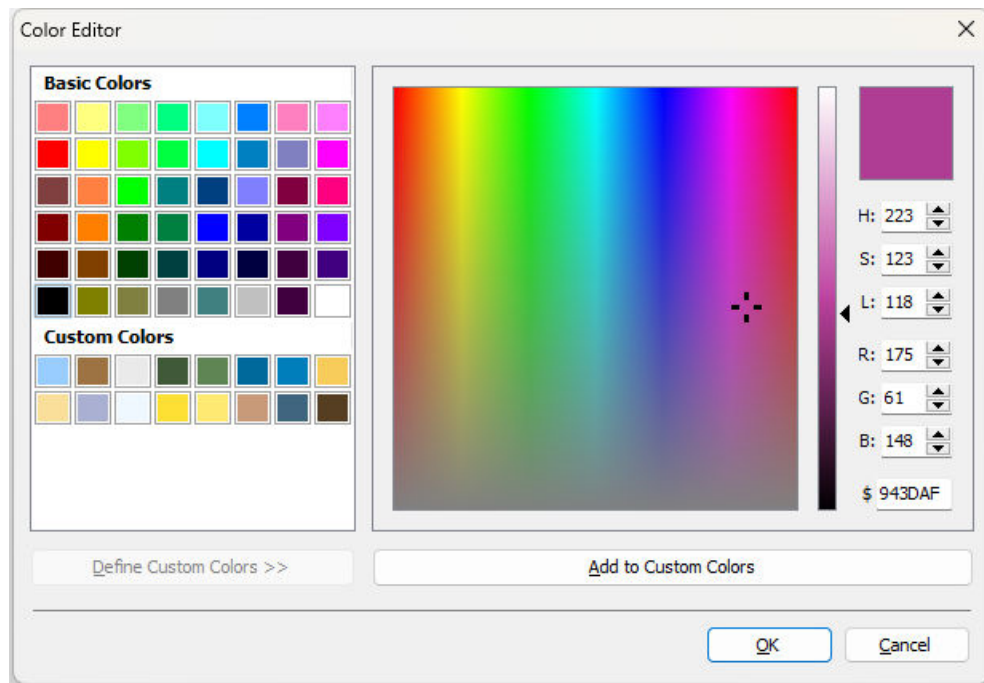
```
R> Prompt
SHOW STATICVAR

R>SHOW STATICVAR
Variable      = Value                                     Type
-----
vNum          = 14322                                           INTEGER
vLtrDate      = 03/25/2022                                       DATE
vStartDate    = 08/15/2023                                       DATE
vStartTime    = 05:12 PM                                         TIME

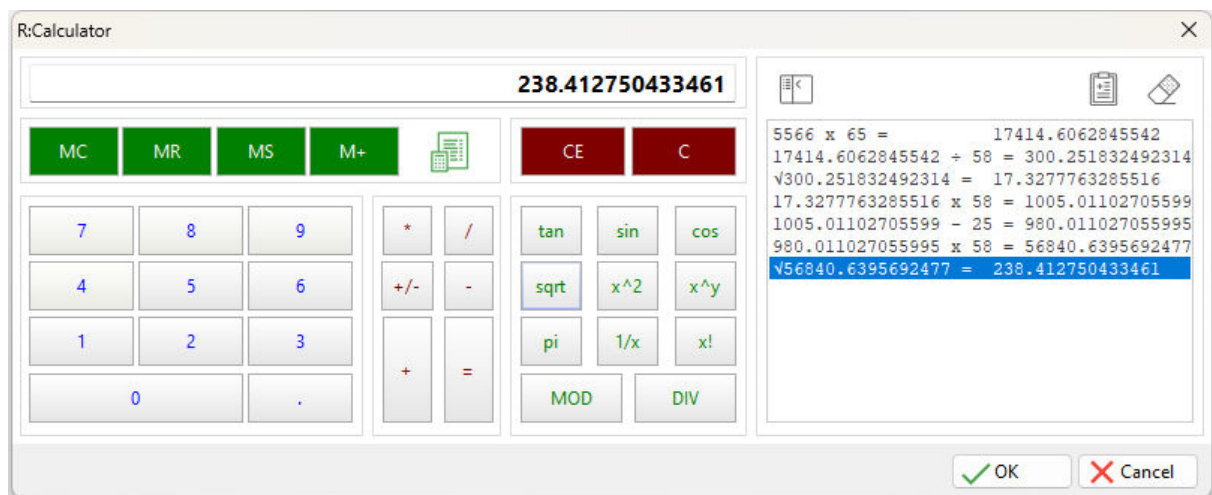
R>SHOW VAR
Variable      = Value                                     Type
-----
#DATE         = 08/15/2023                                       DATE
#TIME         = 05:19 PM                                         TIME
#PI           = 3.14159265358979                                DOUBLE
SQLCODE       = 0                                           INTEGER
SQLSTATE      = 28000                                           TEXT
#NOW          = 08/15/2023 05:19 PM                           DATETIME
vCustID       = 127                                           INTEGER
```

At the bottom of the window, the status bar shows icons for a folder, a star, and a document, followed by the text "Current Folder: C:\RBT\RBG11\Samples\RRBYW20".

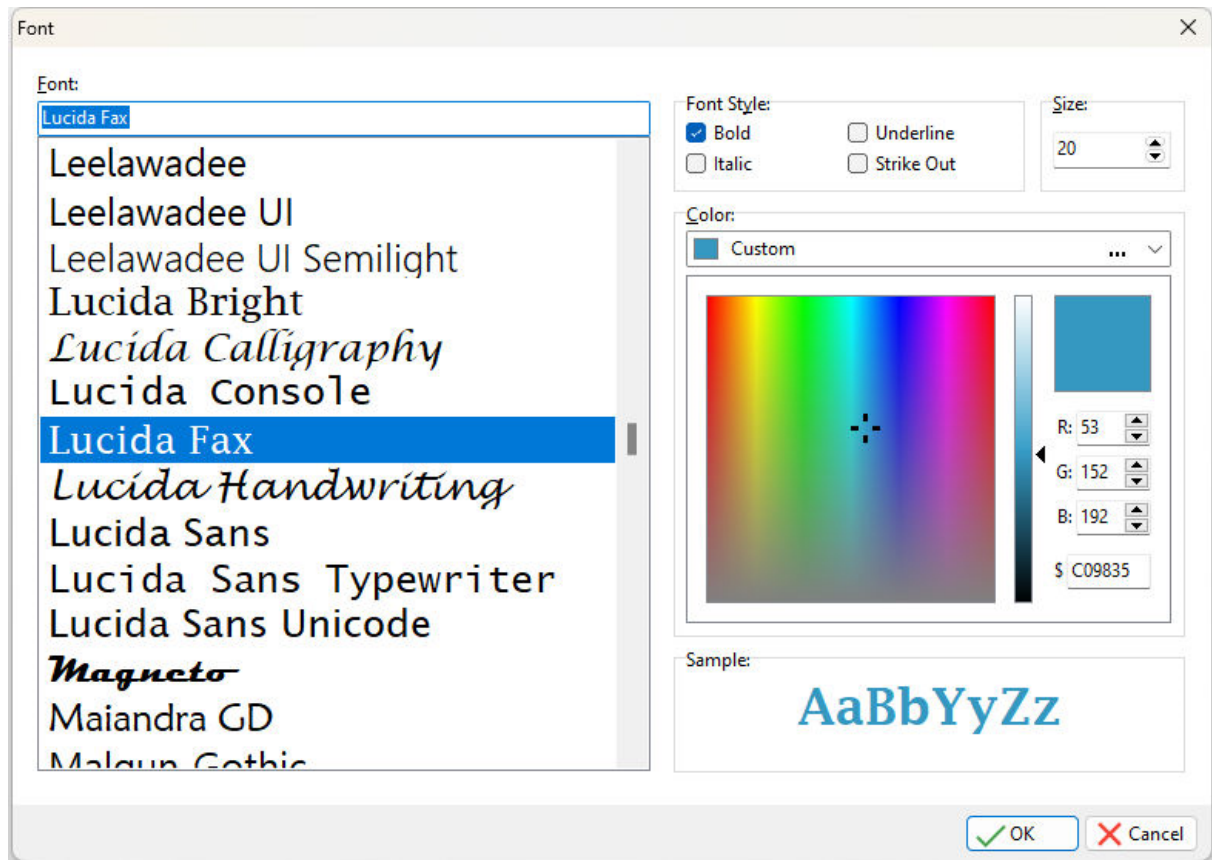
- Enhanced Color Editor dialog for background/foreground colors, object properties, and in other areas where a color may be selected



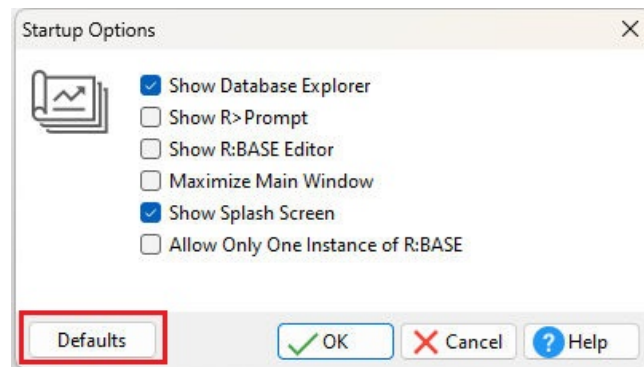
- Enhanced R:Calculator plugin with history (persisted between sessions)



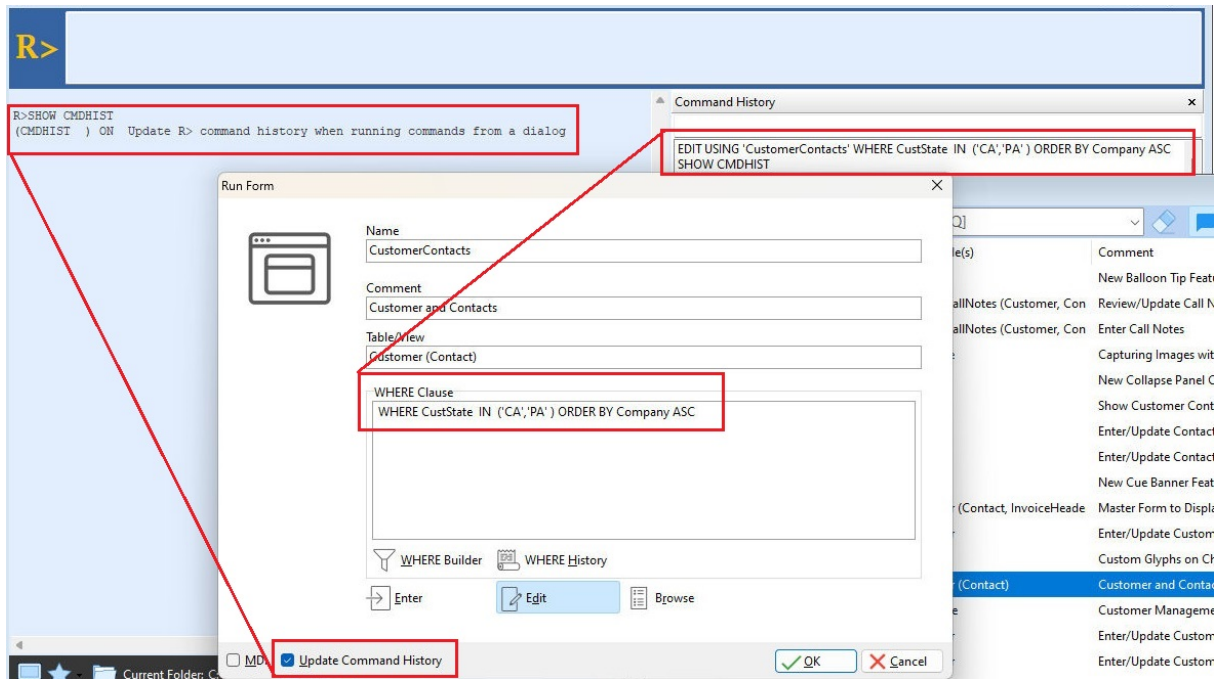
- Enhanced Font dialog for designers, with font type preview and color customization



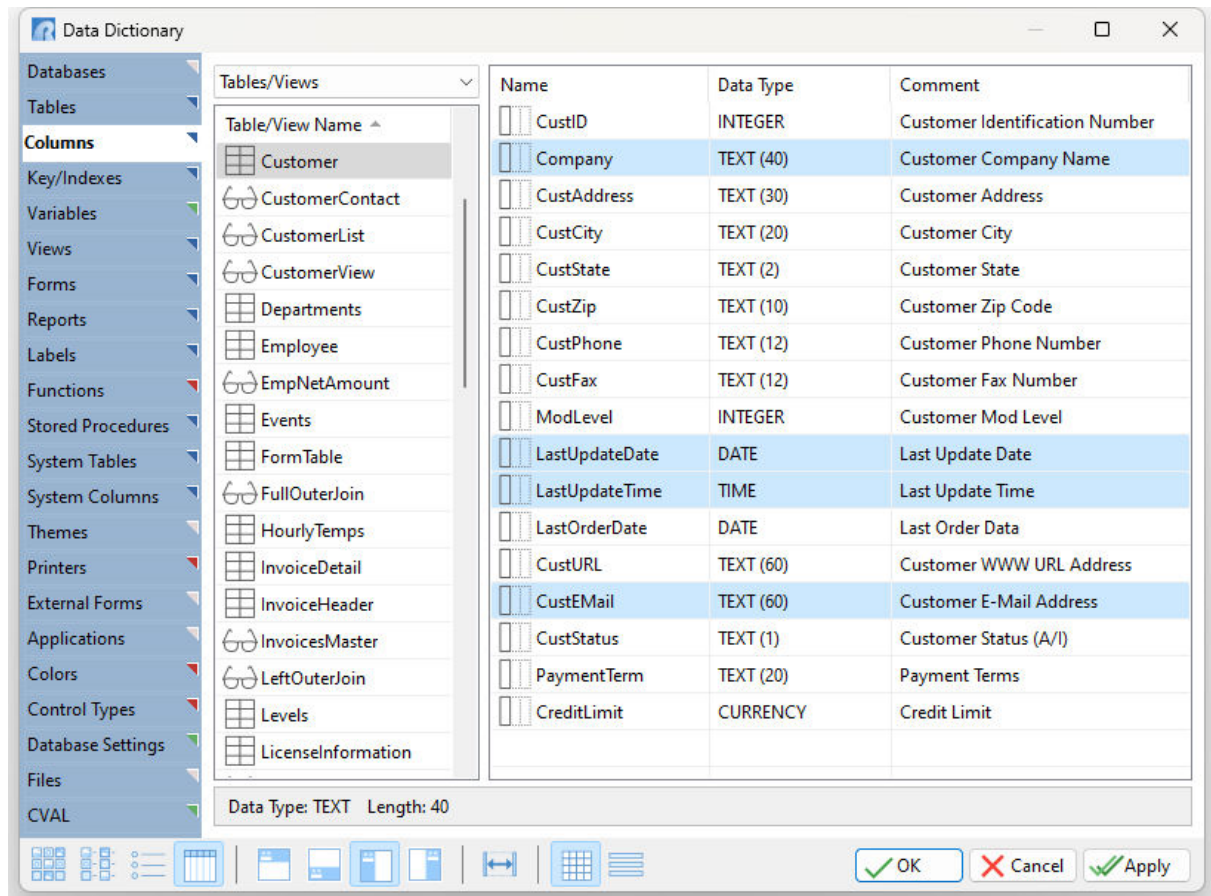
- Added "Defaults" button for the R:BASE Startup Options



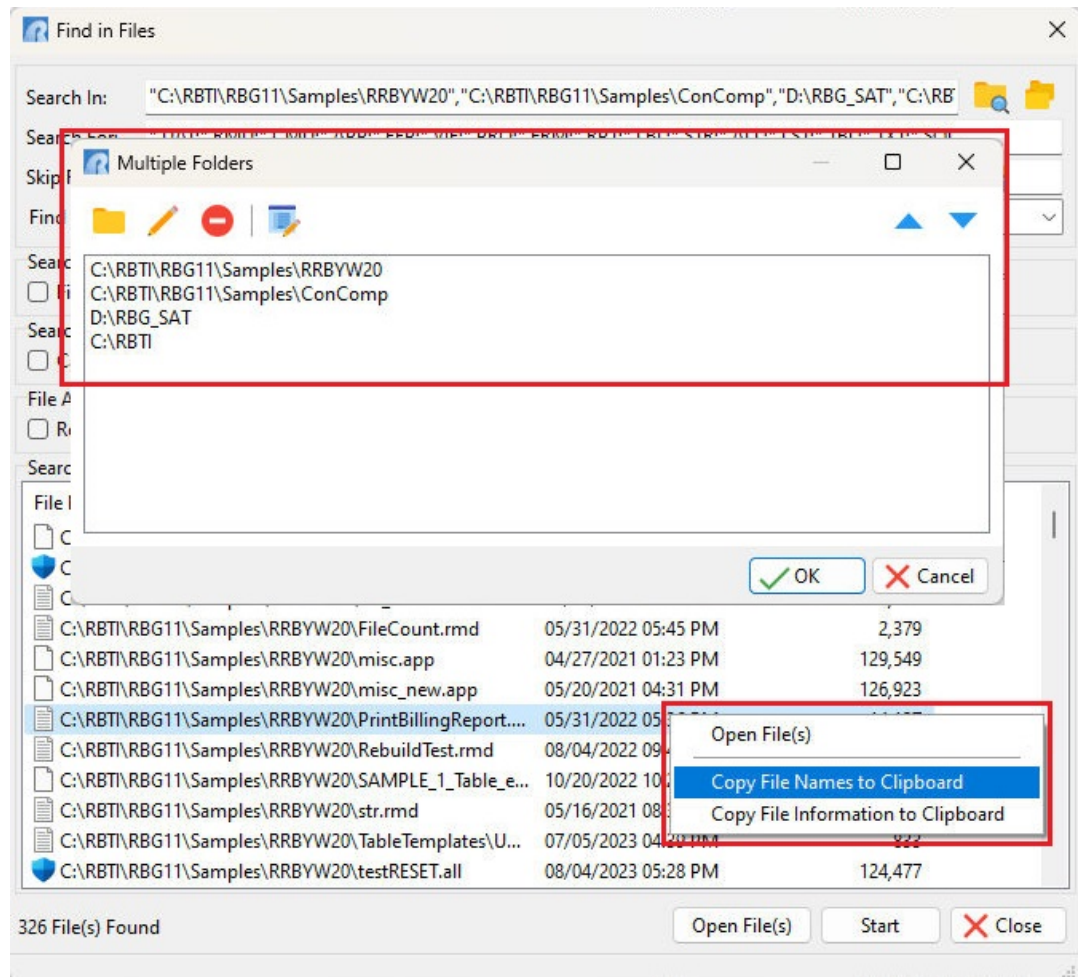
- New CMDHIST setting to control the "Update Command History" check box, when running forms and printing reports/labels from the Database Explorer. When enabled, the "Update Command History" check box will place the syntax used within the R> Prompt Command History tool bar, for easy reference at a later time.



- Redesigned Data Dictionary utility
 - Preferred Tabs Location - places the tab at the desired top, bottom, left, or right edge
 - Linked Tables/Columns - when a table is selected in the Tables tab, it is preselected when viewing the Columns tab (for SYSTEM TABLES also)
 - Space Separated Values - includes a space directly after the comma, so that after a string of values are added to a command file, the [Ctrl+Arrow] keys can be used to move the cursor between values with greater ease
 - Prioritize Tab Order - reorganize the tab stacking order with drag-and-drop
 - MDI Support - the utility recognizes the MDI setting, and will remain open while other areas of R:BASE are used
 - Content Refresh - when focus is switched back to the Data Dictionary, the content will automatically refresh (only in MDI mode)
 - Color Value Conversions - provides a "Color Tool" mechanism to convert RGB colors to numbers
 - Tab Navigation - the [Ctrl+Page Down] and [Ctrl+Page Up] hot keys allow the next/previous tab navigation
 - Color Identifiers - the tabs are organized with distinctive color identifiers (triangle in top right corner) to improve the readability for the several different types of information presented
 - Theme Preview - the Themes tab includes a preview button to review the theme presentation

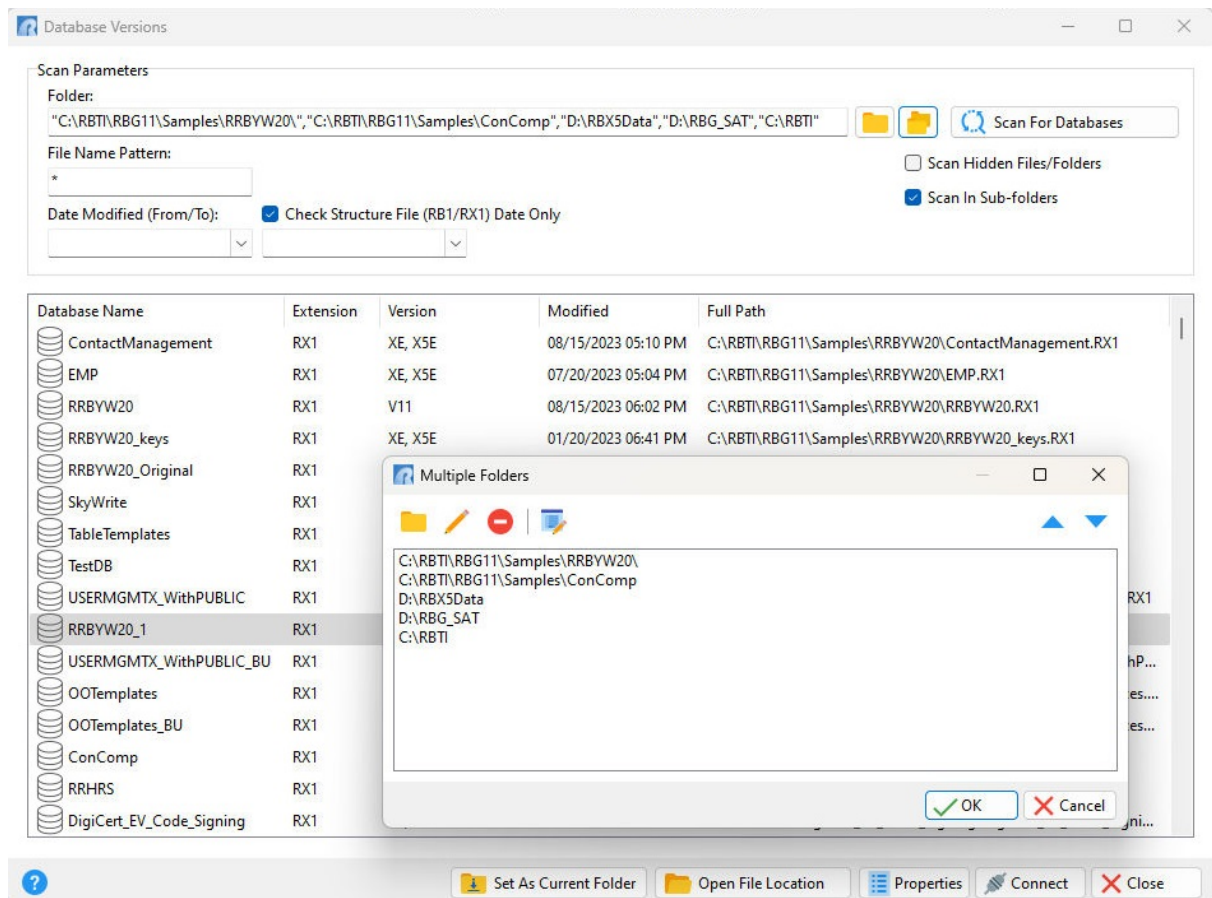


- Enhanced Find in Files utility supporting multiple folder searches (including multiple drive letters)



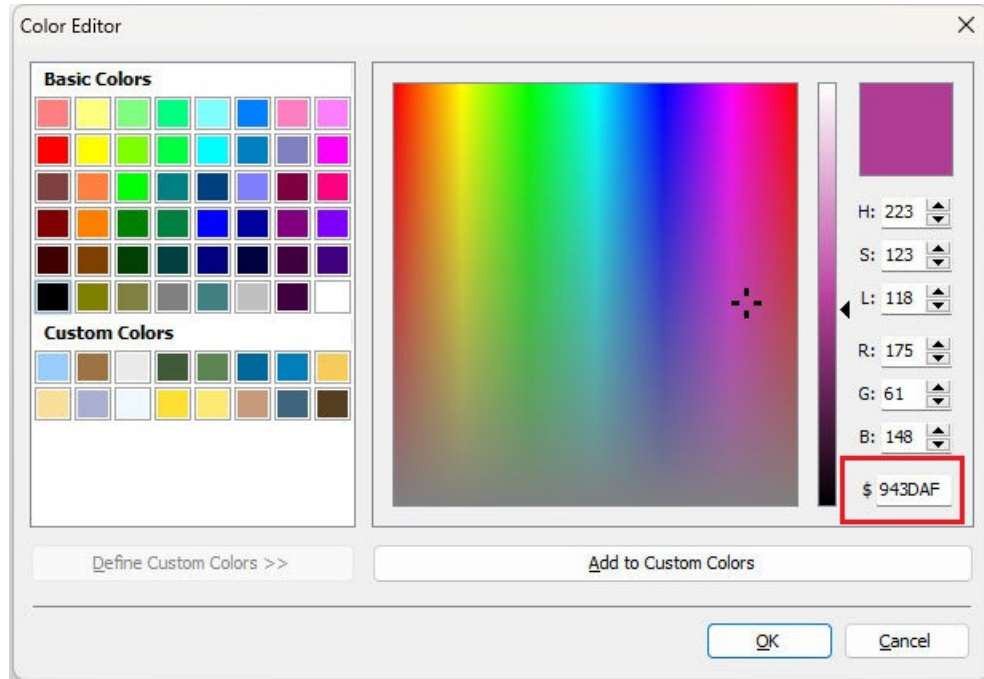
- Added ability to capture the Find in Files utility search results, where the file names can be copied, and also the file names, date/time modified value, and file size

- Enhanced Database Versions utility supporting multiple folder searches (including multiple drive letters)



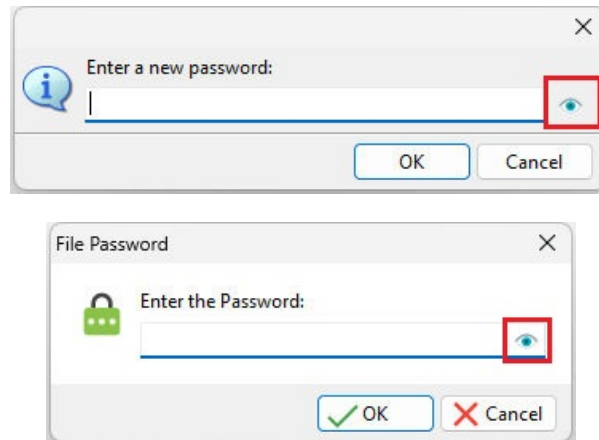
- Enhanced Database Versions utility display with results matching the Hidden File and/or Hidden Folder criterion
- New **TJOURNAL** setting to optionally generate a transaction processing journal file to track database changes associated with each COMMIT or ROLLBACK

- Added ability to switch between Delphi or HTML RGB Hex notation for Custom Colors. The default is Delphi notation. In Delphi mode, the Color Editor will appear as "\$ [.....]" in the bottom right corner. In HTML mode, the Color Editor will appear as "# [.....]". The [F6] key will switch the hex entry text box between Delphi style RGB (\$) and HTML style RGB (#).

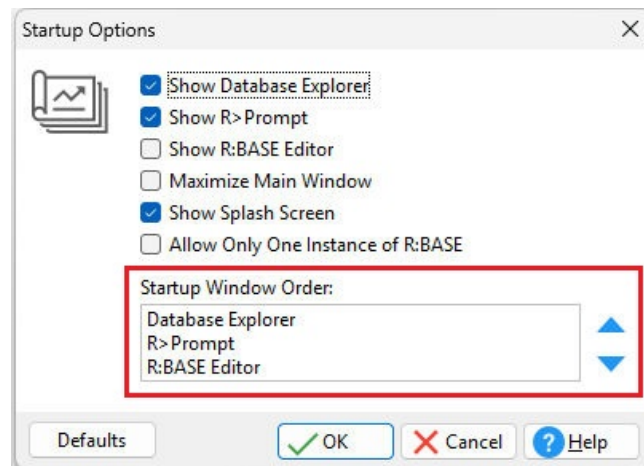


- Added sorted column background color within the Data Dictionary, to match the logic in the Database Explorer
- Added Data Dictionary incremental search when pressing the forward slash key [/] to display the Find dialog, where typing into the entry box will automatically locate matches on a per character basis. Note this behavior only works with the list view displays when [/] is pressed, and not when [Ctrl+N] is pressed.
- New **PARSESEMI** setting which controls the parsing of semi colon characters in the processing of ampersand variables. The default value is OFF, which means R:BASE ignores semi colons in ampersand variables. If PARSESEMI is set to ON then you can have semi colons inside an ampersand variable to stack multiple commands.
- New **NUMROUND** setting which rounds any excess scale digits for numeric data types. The default value is OFF, which means that numeric values must follow the definition for the maximum number of digits to the right of the decimal (the scale). If NUMROUND is ON, then as long as the number would round to a valid numeric with that precision and scale, R:BASE will accept the value. This means that if you entered 0.237 with NUMROUND set to ON, it will be allowed and the stored value will be 0.24.
- Enhanced Data Dictionary where double click is supported to paste the table name, column name, etc. value
- Added Scratch Pad utility [Ctrl+F11] support when reviewing the form, report, and label "Find in..." search results

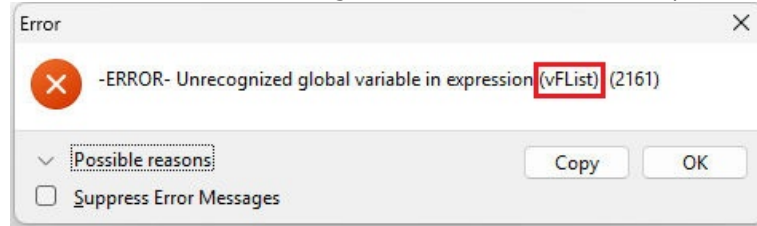
- Enhanced password edit fields where an "eye" button is available to toggle between hidden and visible characters when entering a password, allowing users to preview the input string before submission. When the mouse button is clicked down, the password is shown, then hidden again when the mouse button is released. The enhancement includes any field where a password may be entered including the DIALOG command, File Gateway utility, encrypted command files, database passwords, Report E-Mail Settings, R:DCC Client, and more.



- Enhanced Startup Options to specify the window/tab order when R:BASE is launched. The module listed first will be assigned the focus.



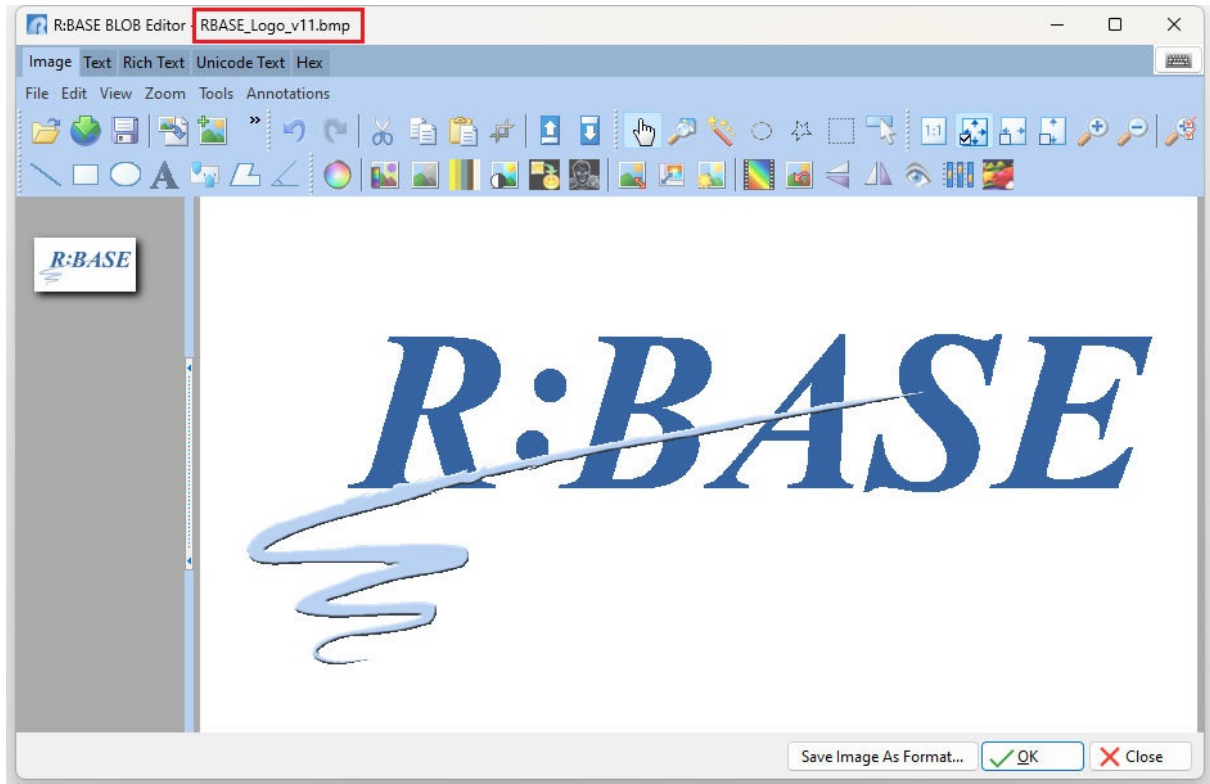
- Improved error message for message 2161 to include the variable name, for when an unrecognized global variable exists in an expression. The error message for message 2160 has been improved to include the column name, for when an unrecognized column exists in an expression.



2 BLOB Editor

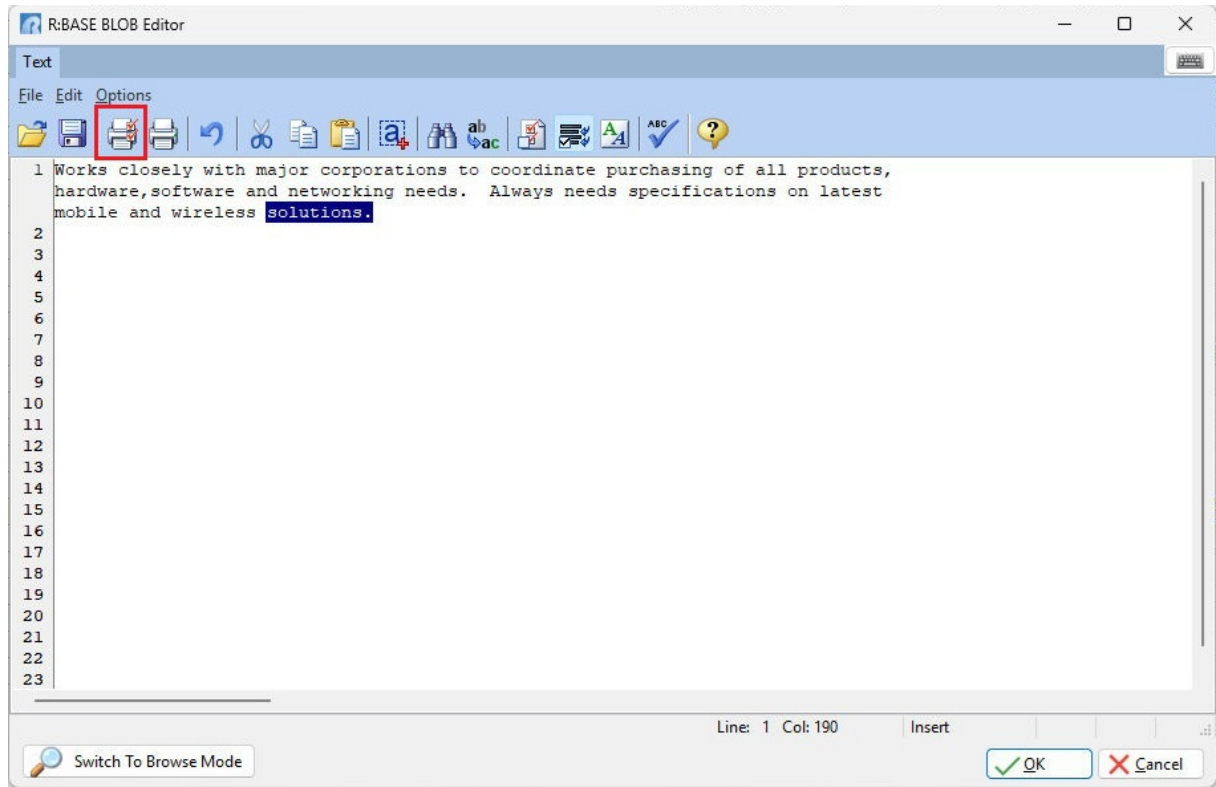
The BLOB Editor is an integrated data utility to manage large ASCII data, Rich Text, text, Unicode text, and images within R:BASE 11. New features include:

- Enhanced BLOB Editor where the file being edited is displayed in the title bar



- Enhanced BLOB Editor to support the standard keyboard shortcut [Ctrl+Z] to undo a change
- Added BLOB Editor option to the "Tools" main menu bar drop-down

- Add Print Setup option for the Text tab



3 Commands

The following enhancements have been made to the R:BASE 11 command syntax:

- Added **EXCEPT** clause for the **SELECT ALL** command, to exclude a subset of columns from a query

```
SELECT ALL FROM Customer EXCEPT CustURL, CustEMail
```

- New **RESET** command to retain the date/time for tables and views when generating structure information with the UNLOAD command. The UNLOAD will create the RESET code, so that the rebuilt table and view assigns the original value.

```
RESET SalesDataByCompany LAST_MOD TO '01/01/2022 08:00'
```

- Enhanced **LIST** command which displays the last data modification date/time stamp, and the last schema modification date/time stamp, and comment for the connected database

```
Database Comment: Running R:BASE Your Way 20
Last database modification: 08/07/2023 09:42 AM
Last schema modification: 08/07/2023 09:37 AM
```

- New **SET STATICVAR** command to define static variables, which are part of a connected database

```
SET STATICVAR vCompanyName TEXT = +
CompanyName IN LicenseInformation WHERE LicenseNumber = 'BM-68215'
```

- Enhanced **DIR** command to support sort ordering with ASC and DESC parameters

```
DIR *.RX1 DESC
```

- Enhanced **PROJECT** command with **EXCEPT** parameter support to specify columns that will not be included in the projected table

```
PROJECT TEMPORARY CustDetail FROM Customer USING * EXCEPT CustFax
```

- Support for local variables within MDI forms with **SET VARIABLE MDI**

```
SET VARIABLE MDI vCounter INTEGER = 0
```

- Added **CREATE INDEX** support for NOT NULL (partial) indexes, where the index is populated with references to rows where the column value is not NULL. NULL values are not added to the index.

```
CREATE NOT NULL INDEX CustDeactive ON Customer (CustDeactiveDate DESC)
```

- Enhanced **LIST VIEWS** which shows the tables/views that are used in each view

```
LIST VIEWS
```

Name	Columns	Rows	Comments
CustomerContact	8	N/A	Customers and Contacts
Tables:Customer,Contact			
SalesByEmployee	6	N/A	Products Sold by Employee
Tables:Employee,InvoiceHeader			
SalesDataByCompany	9	N/A	Sales Data by Company
Tables:InvoiceHeader,Customer			
StaffByDept	11	N/A	Staff by Department
Tables:Staff,Departments			

- Enhanced **COMMENT ON** command to specify a comment for the connected database

```
COMMENT ON DATABASE IS 'User and Contact Management System'
```

- New **EXPLAIN** command which outputs the optimizer selections for the specified query

```
EXPLAIN SELECT ALL FROM Customer WHERE CustState = 'WA'
```

- Enhanced **BROWSE** and **EDIT** commands with **EXCEPT** parameter support to specify columns that will not be included in the Data Browser

```
BROWSE ALL FROM Contact EXCEPT ContInfo, ContPhoto
```

- Enhanced **PRINT... OPTION SCREEN** with additional parameters to disable the Find Text and Report Outline buttons, just like other enabled/disable buttons parameters

```
PRINT Invoice WHERE TransID = 1002 +  
OPTION SCREEN|BTNFIND_VISIBLE FALSE|BTNOUTLINE_VISIBLE FALSE
```

- Enhanced **GRANT** user privileges allowing CREATE privileges on TEMPORARY TABLES to be separate from CREATE privileges on permanent tables

```
GRANT TEMPORARY CREATE TO Noah
```

- Enhanced **LIST** command to display QualKey columns

```
LIST COLUMN QUALKEYS
```

- New **DBCONN** command which displays all applications (application, path, and file name) with connections to the connected database

- Enhanced **UNLOAD DATA** command to specify custom quote and delimiter character values for ASCII/CSV formats

```
UNLOAD DATA FOR InvoiceHeader AS CSV DELIMIT=|
```

- Enhanced **LIST** command which includes the number of views, stored procedures, forms, reports, and labels

```
Number of Tables in Database RRBYW20 is 56.  
Number of Columns in Database RRBYW20 is 388.  
Number of Indexes in Database RRBYW20 is 62.  
Number of Views in Database RRBYW20 is 29.  
Number of Stored Procedures in Database RRBYW20 is 2.  
Number of Forms in Database RRBYW20 is 96.  
Number of Reports in Database RRBYW20 is 58.  
Number of Labels in Database RRBYW20 is 10.
```

- Enhanced **SHOW VARIABLE** command which supports wildcard characters for the variable name, even when the =w parameter is present

```
SHOW VARIABLE vCust%=10 ASC
```

- Enhanced **DEBUG** setting variable debugging feature where a warning will display if a SET VAR <NAME> <TYPE> declaration is executed when the variable already exists and the variable type changes. The warning will only appear if DEBUG is set ON. The feature is helpful to avoid accidentally clearing a variable when it is used elsewhere, especially in heavily nested code.

- Added ROWS_PER_FILE parameter for the **GATEWAY** exports where the records may be broken up into separate files based on the quantity of records in each file. The supported export formats include: XLS, XLSW, SLK, DIF, WK1, WQ1, LDIF, JSON, and ODT.

```
GATEWAY EXPORT JSON Employee.JSON +
SELECT * FROM Employee WHERE ActivEmp = 'A' +
OPTION SHOW_PROGRESS ON +
|ROWS_PER_FILE 5
```

- Enhanced **GATEWAY EXPORT** formula detection support for Excel formats to dismiss equal characters that exist in table values, which are not actual formulas. The default is ON.

```
GATEWAY EXPORT XLS DataCalculation.XLS +
SELECT * FROM DataRates +
OPTION COL_NAMES ON |DETECT_FORMULA OFF
```

- Enhanced **ExtForm plugin** to include a SET_VERSION_NUMBER parameter, where the version number for an external form can be adjusted/reset

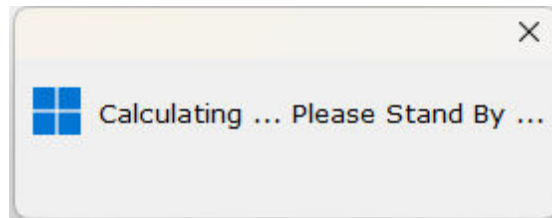
```
PLUGIN EXTFORM vResult|FILE TileMenu.rff +
|ACTION SET_VERSION_NUMBER|VERSION 101
```

- Enhanced **FEEDBACK** setting where **AUTONUM** is added to the list of command which will show feedback
- Enhanced **GATEWAY IMPORT** support for the XML format to flatten the structure and process attribute options for improved loading of data nodes

```
GATEWAY IMPORT XML ShipmentLoad.XML REPLACE Shipments +
OPTION NODE_PATH \FILE +
|PROCESS_ATTRIBUTES ON +
|FLATTEN_STRUCTURE ON
```

- Enhanced **DIALOG** and **PAUSE** commands where the WINDOWS icon image will vary based upon the operating system

```
PAUSE 3 USING 'Calculating ... Please Stand By ...' +
CAPTION ' ' ICON WINDOWS +
OPTION MESSAGE_FONT_NAME VERDANA +
|MESSAGE_FONT_SIZE 10 +
|MESSAGE_FONT_COLOR BLACK
```



- When using the Character Case property in form Edit/Memo controls, the Title Case option does not capitalize the second value in a hyphenated string. An application PROPERTY was implemented to alter the behavior of Title casing, where the first letter in the second value of a hyphenated string is made upper case. The default value is OFF.

```
PROPERTY APPLICATION HYPHEN_AS_WORD_SEPARATOR ON
```

- Added **EXTRA_SHEETS** parameter for the **GATEWAY** EXPORT XLSW option, which specifies whether blank sheets (Sheet2, Sheet3) are automatically included in the exported workbook

```
GATEWAY EXPORT XLSW CustomerList.xlsx +
SELECT * FROM Customer ORDER by Company +
OPTION COL_NAMES ON +
|TAB_NAME Customer List +
|EXTRA_SHEETS OFF
```

- Increased size limit to 30,000 characters (was 10,000) for the **SELECT...LISTOF** function return value
- Enhanced **SELECT** command functions (MIN, MAX, LISTOF, etc.) will now use up to the first 2,000 characters (was 80) for each NOTE value
- Enhanced **RBTI_TIMEOUT** variable functionality to execute a routine in the form of a command file, **RUN SELECT**, or **CALL** to a stored procedure when a **TIMEOUT** occurs

```
SET VARIABLE RBTI_TIMEOUT TEXT = 'CALL TimeOutCode()'
```

- Enhanced **AUTOCHK** command to check an index in descending order, by finding the last leaf and walking backwards in the B-tree index structure. The default index checking finds the first leaf and walks all of the leaves in a forward direction.

```
AUTOCHK INDEX IndexName DESC
```

- Enhanced **INSERT** and **LOAD** commands with the ability to enable rebuilding of non-constraint indexes "after" rows are added, rather than row-by-row. The new **REINDEX** command parameter at the end of the commands specifies that R:BASE will temporarily add the new rows without updating every non-constraint index row by row, and only updates constraint indexes row by row. When the new rows are done being added, the non-constraint indexes are then rebuilt. The rebuilding of the non-constraint indexes after the rows are added increases the overall speed of adding many rows to a table.

```
INSERT INTO Declarations +
(DecID, CredID, DeclarationType, DeclarationStatus, +
Declaration, PolicyID) +
SELECT DISTINCT +
DecID, CredID, DeclarationType, DeclarationStatus, +
Declaration, PolicyID +
FROM TempDeclarations +
WHERE DecID IS NOT NULL AND PolicyID IS NULL REINDEX
```

- Added support for temporary tables that are stored in memory, instead of a temporary file. In memory tables may be created with the **CREATE TABLE**, **INTERSECT**, **JOIN**, **PROJECT**, **SUBTRACT**, and **UNION** commands. The command syntax allows the **INMEMORY** keyword to be used where **TEMPORARY** is normally located.

```
CREATE INMEMORY TABLE NewTable1 +
(NewColumn1 INTEGER, NewColumn2 TEXT 8)
```

When such a table is created, nothing is written to the temporary file 2 for the data rows. The table and rows are in memory. R:BASE initially allocates 32,000 bytes for each INMEMORY table, where as the table grows, the space will increase as needed. R:BASE currently limits a database to twenty-five (25) INMEMORY tables. If any keys are built for an INMEMORY table, the key data will be written to the temporary file 3. When using the LIST command, INMEMORY tables will have an (I) in front of the name, instead of (T).

- Improved default tab logic for the BLOB Editor when launched with the **RBBEDIT** command, where specifying the default tab is applied regardless of the file type. For example, if the intent is to open a rich text file in the Hex Editor, the following may be used:

```
RBBEDIT FileName.RTF HEX
```

- New **NULLSET** command to set variable values to NULL for individual variables, or a variable list

```
NULLSET VAR vCost, vReportName  
NULLSET VAR vCust%  
NULLSET ALL VAR EXCEPT vOutput
```

- Enhanced **RBBEDIT** command to support editing BLOB data directly from a SELECT query, which mimics the behavior of double clicking a BLOB field in the Data Browser. The syntax uses the SQL keyword prior to the query syntax.

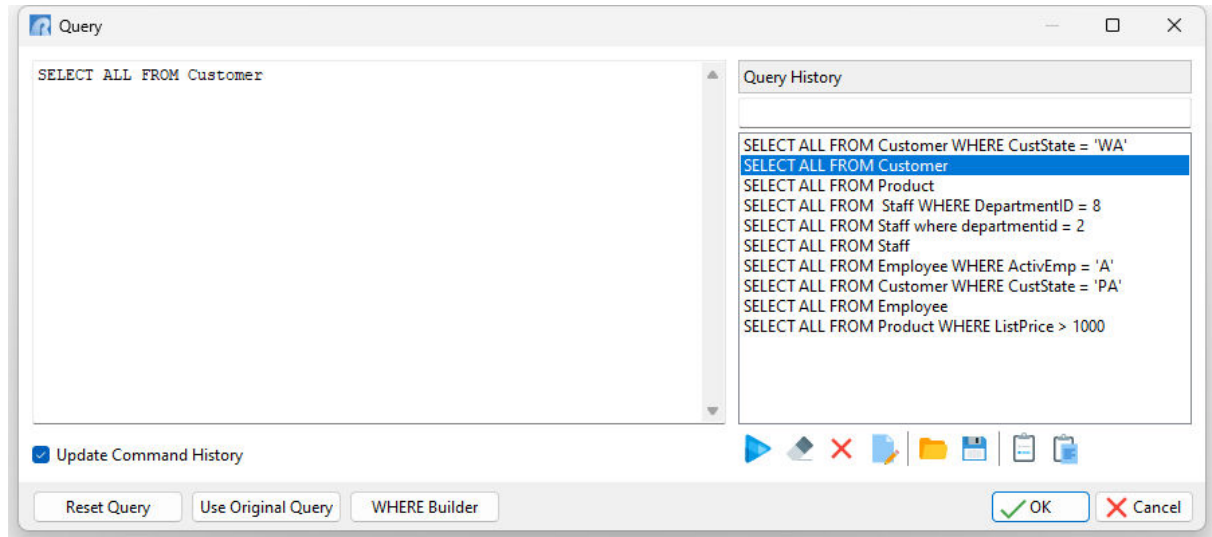
```
RBBEDIT '<SQL SELECT ContPhoto FROM Contact WHERE ContID = 1001>'
```

- Enhanced TITLE portion of the **CHOOSE** command to support 150 characters

4 Data Browser/Editor

Allowing for manageable data review and modification, the following features have been enhanced within the R:BASE 11 Data Browser:

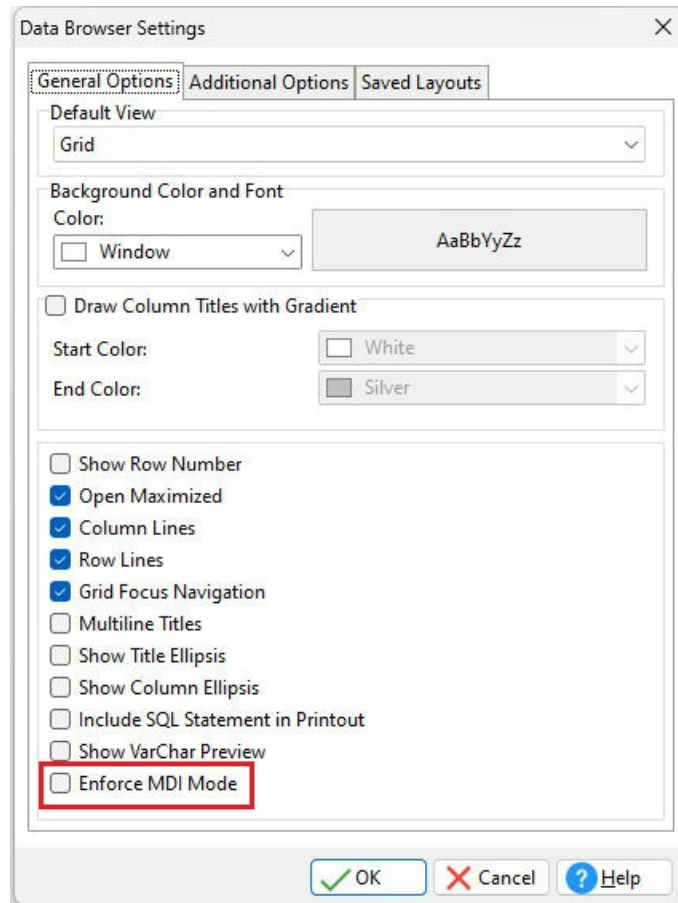
- Enhanced Update Query utility with a Query History to retain table queries



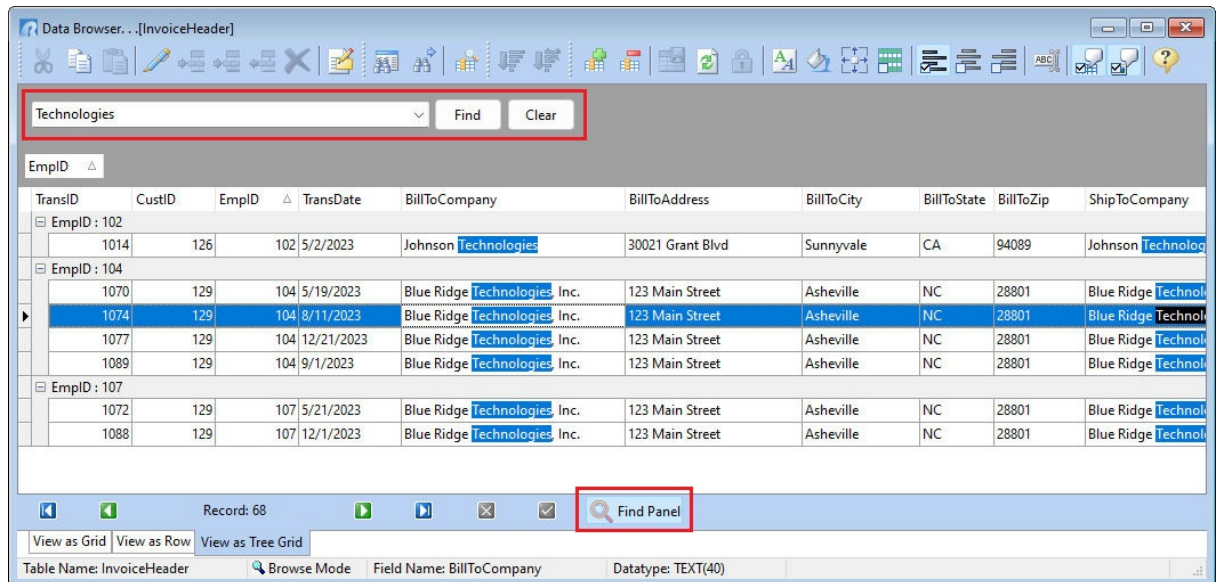
- Added .xlsx file extension option for exports to Spreadsheets, similar to what is currently offered for Workbooks

- Added "Enforce MDI Mode" setting to specify that the Data Browser is opened in MDI mode by default, even if the MDI parameter is omitted from the EDIT or BROWSE command, or the MDI setting is OFF. Enforcing MDI mode in the Data Browser may also be controlled with the PROPERTY command, to turn the feature ON/OFF in code.

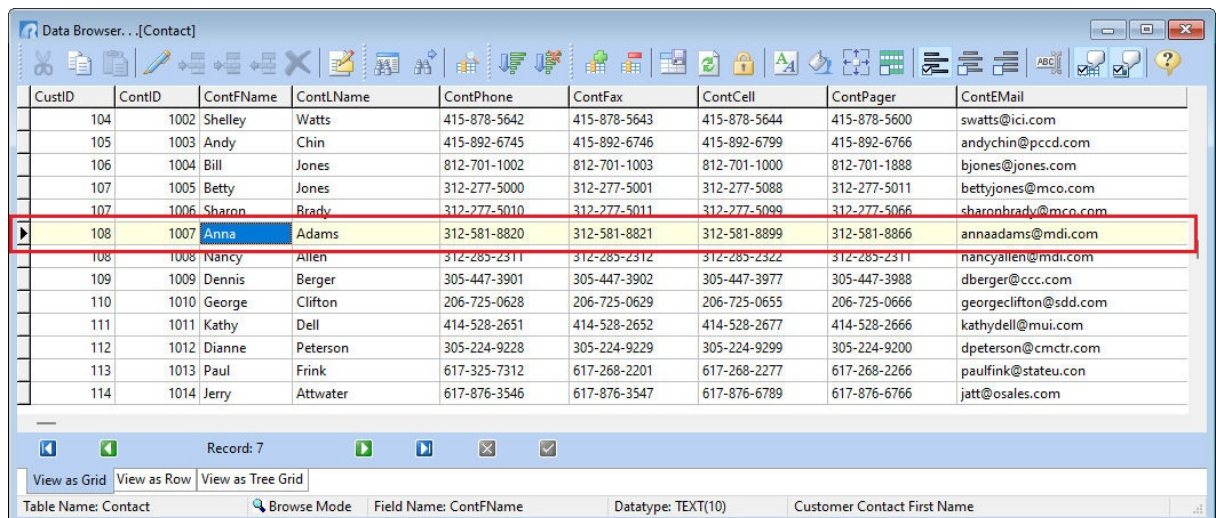
PROPERTY DATA_BROWSER MDI ON/OFF



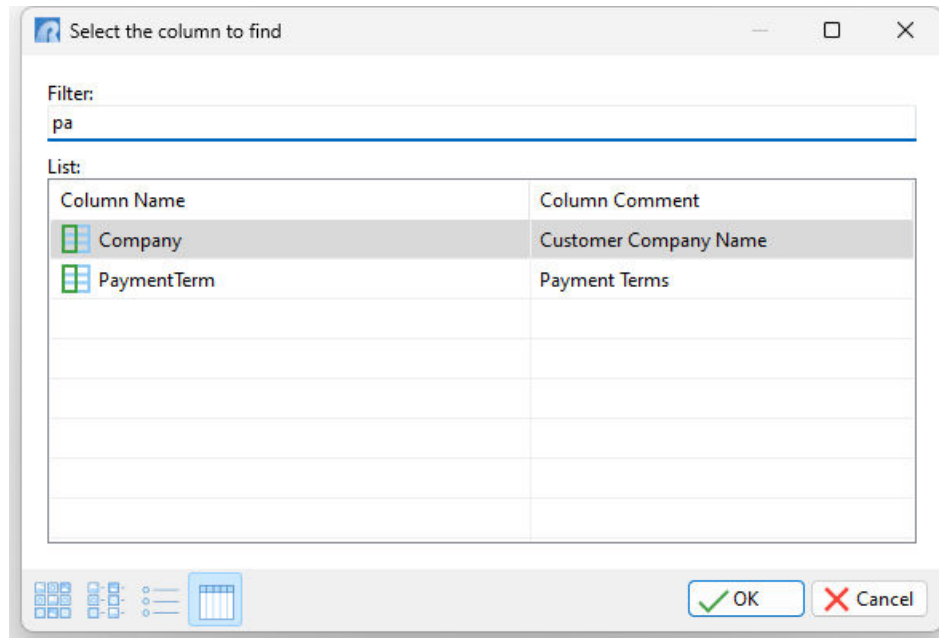
- New Find Panel may be enabled to provide fast record filtering in Tree Grid mode. The most recently used searches are retained in the Find Panel drop-down. The Find Panel may also be toggled with the [Ctrl+Shift+F] keys.



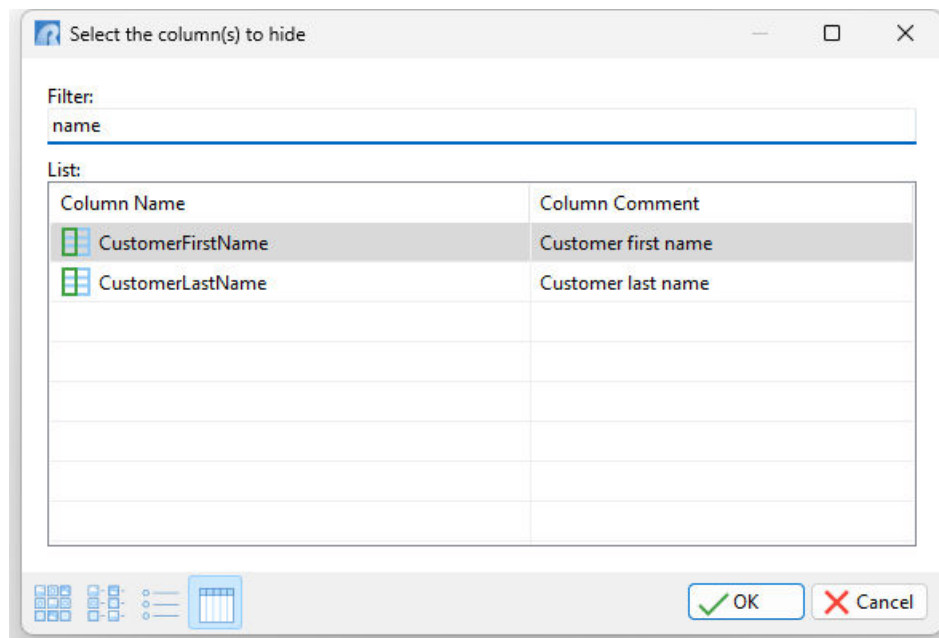
- Enhanced selection highlighting in View as Grid mode where the entire row is highlighted



- Enhanced column name search (Move to) utility (Ctrl+F8), now Find Column, where a specific column may be filtered within a list, to quickly locate the column in a large list of column names. The enhanced Find Column options (toolbar and menu bar) have also been moved to appropriate locations.



- Enhanced Show Column and Hide Column dialogs with a filter field, where the column names may be filtered within the list, to quickly locate the desired column



5 Database Explorer

As the main dashboard, the R:BASE 11 Database Explorer has been enhanced with the following features:

- New Find in list Filter to search for items within the work space



- Added column for Views, listing the table/view source that each view is comprised of

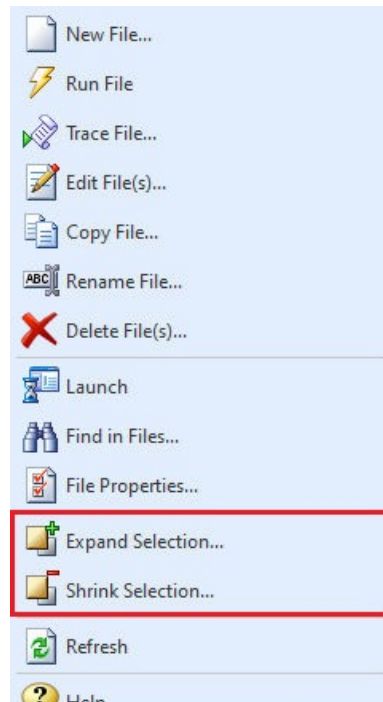
 A screenshot of the 'Views' table in the Database Explorer interface. The table has three columns: 'View Name', 'Tables', and 'Comment'. The 'Tables' column is highlighted with a red border. The 'Views' table is shown with a list of views and their corresponding tables and comments.

View Name	Tables	Comment
2. CustomerList	Customer	View - Customer List
3. CustomerView	Customer	Sorted List of Customers
4. EmpNetAmount	Employee, InvoiceHeader	
5. FullOuterJoin	Customer, Employee	Sample Full Outer Join V
6. InvoicesMaster	InvoiceHeader, InvoiceDetail, Product, Employee	Invoice Master
7. LeftOuterJoin	InvoiceHeader, InvoiceDetail	Sample Left Outer Join V
8. ListOfReportsView	SYS_REPORTS3	List of Reports to be Sho
9. NewContact	Contact	Quick List of Customer C
10. NewCustomer	Customer	Test View for Sub-Report
11. NewEmployee	Employee	Test View for Sub-Report
12. NewInvoiceDetails	InvoiceDetail, Product	Test View for Sub-Report
13. NewInvoiceHeader	InvoiceHeader	Test View for Sub-Report
14. OrganizationView	Staff, Departments, StaffByDept	Organization View
15. ProdAlias	InvoiceHeader, InvoiceDetail, Customer, Employee, Product	Products Sold by Date -
16. ProductInvoice	InvoiceHeader, InvoiceDetail, Customer, Product, Contact	Product Invoice View
17. ProdView	InvoiceHeader, InvoiceDetail, Customer, Employee, Product	Sales by Products - View

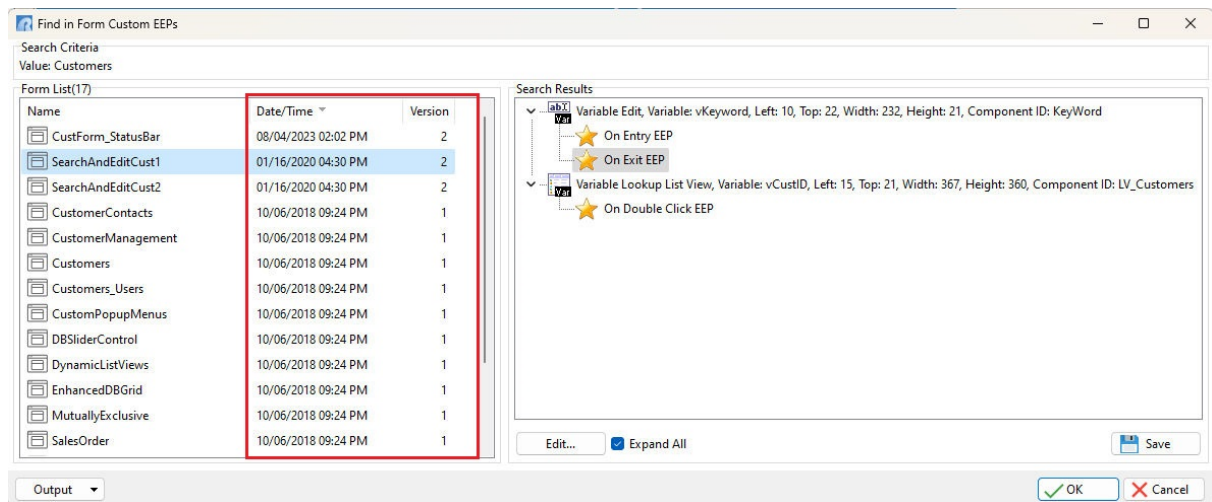
- Added display for the current INSERT/OVERWRITE status in the R:BASE status bar



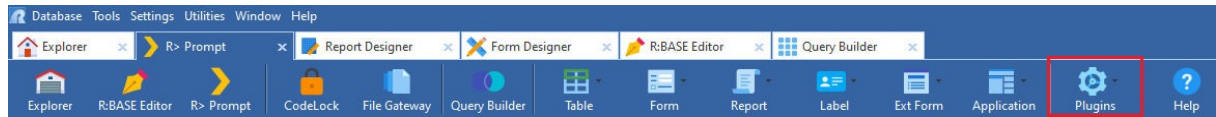
- Added "Expand Selection" and "Shrink Selection" menu options to the Command Files group, where a custom file mask (file name and/or extension) can be specified to include or limit file selections



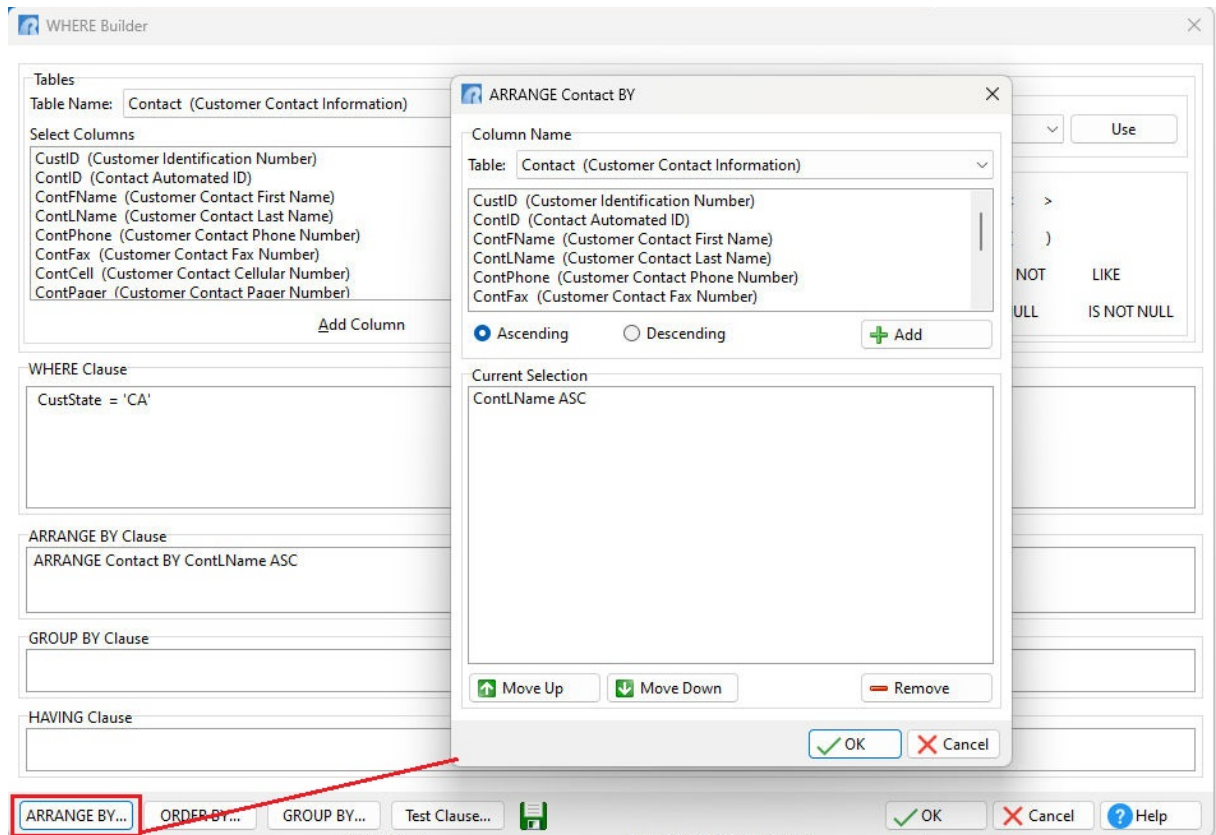
- Enhanced results when searching for text in EEPs, object properties, and expressions, where the date and time stamp and version are displayed next to the object name



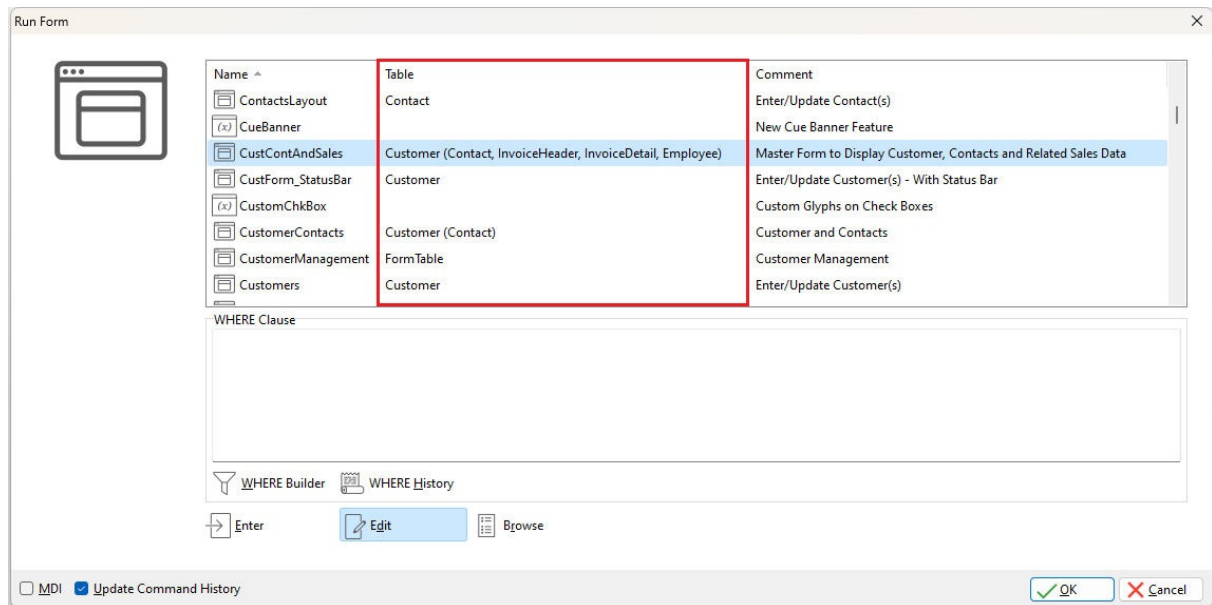
- Added Plugins button to the main toolbar



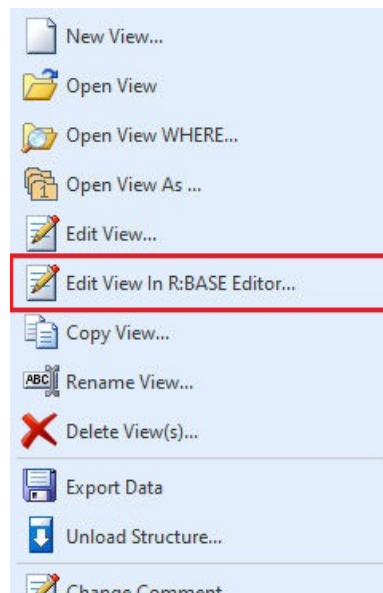
- Enhanced WHERE Builder when running a form or printing a report/label which contains slave tables, where "ARRANGE TableName BY ColumnName" parameters can be specified. After a slave table is selected from the table list in the WHERE Builder, the "ARRANGE BY" button is enabled to define the column(s) to arrange the slave table data.



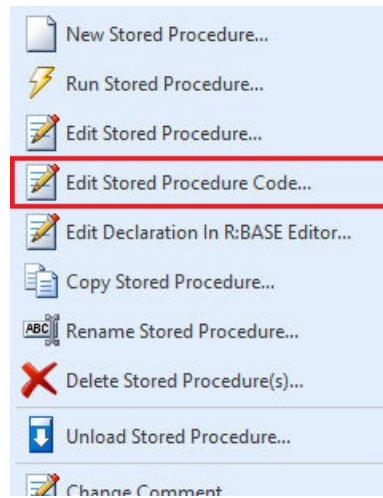
- Added display of slave tables when selecting to run a form or print a report/label from the main toolbar



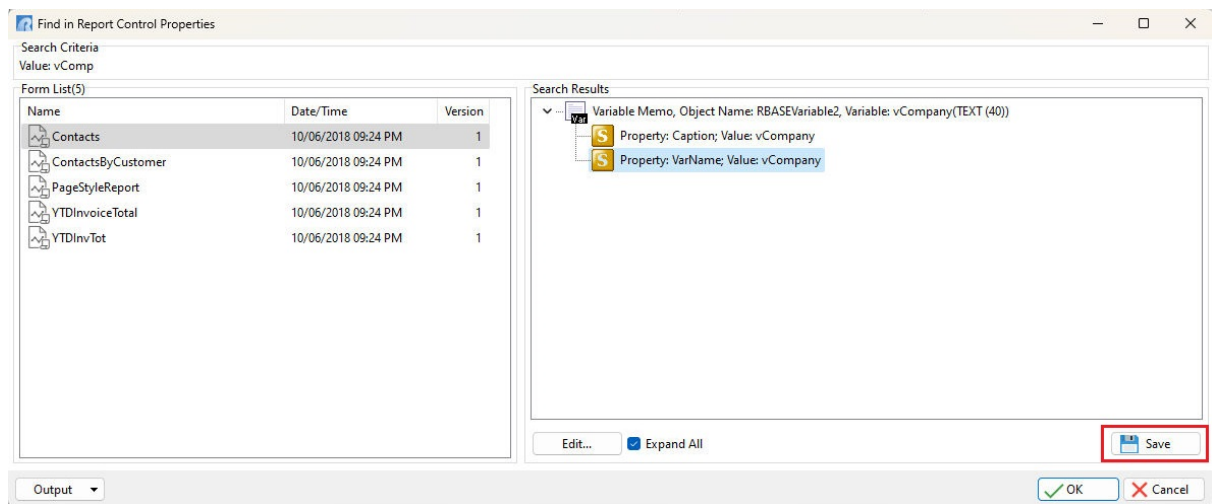
- Added support to edit a view in R:BASE Editor from the Database Explorer, where a tab opens in R:BASE Editor for any changes to be implemented by running the .vie command file



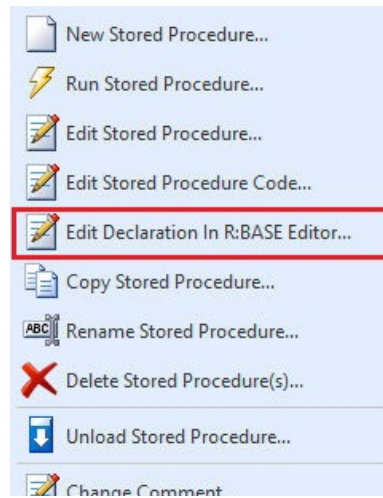
- Support to directly edit a stored procedure's code from the Database Explorer



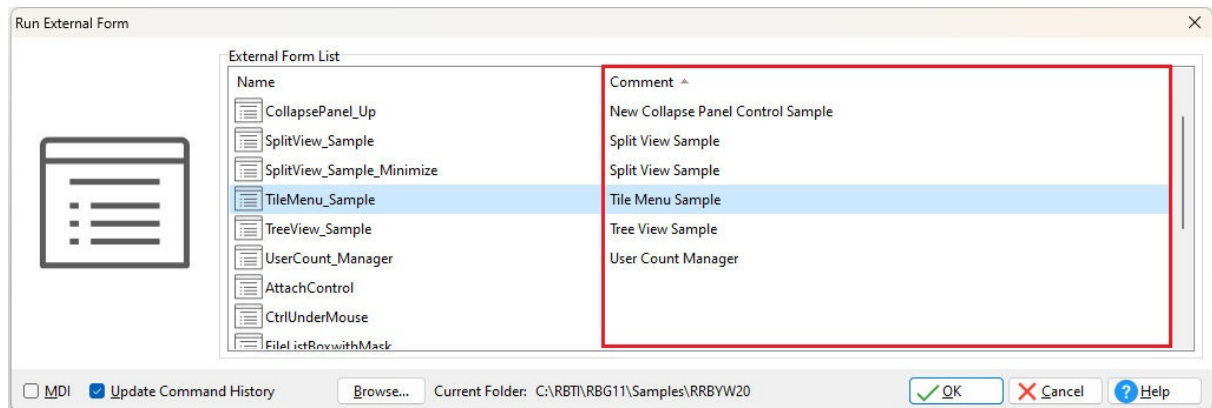
- Added "Save" button when searching for text in EEPs, object properties, and expressions, where each module may be saved individually



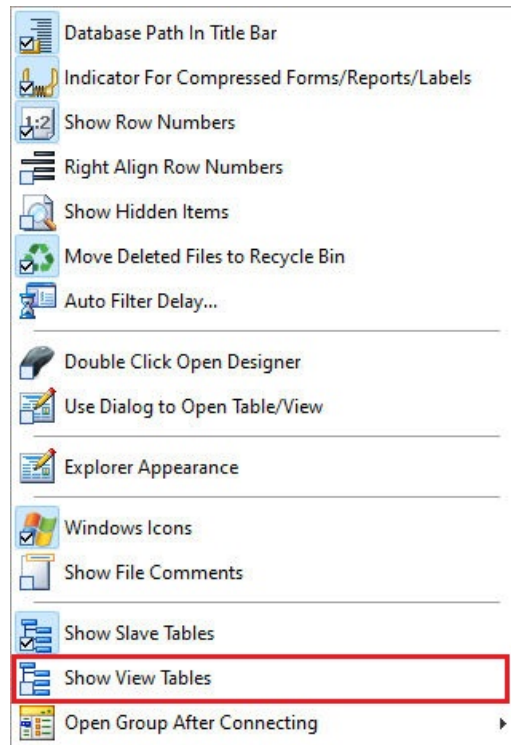
- Added support to edit a stored procedure declaration in R:BASE Editor, with the source in a .PRO file and the declaration to a .RMD file



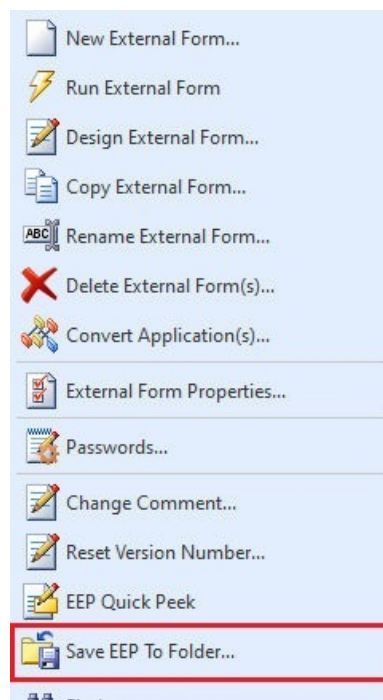
- Added display of comments when running an external form from the main toolbar when no external form is selected



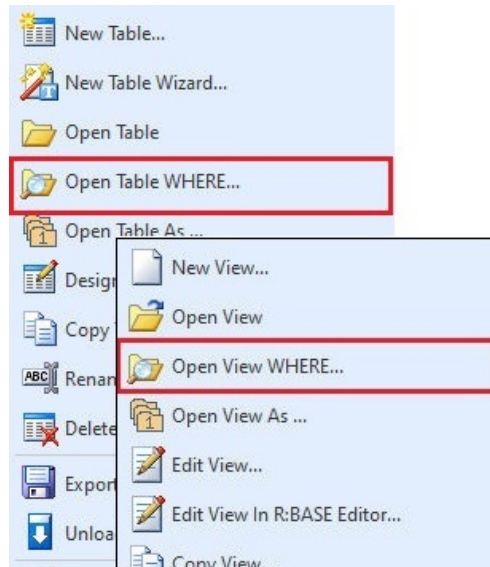
- Added setting to toggle the display of tables/views for the Views area. When enabled, the setting can slow down response times when many/complicated views are present.



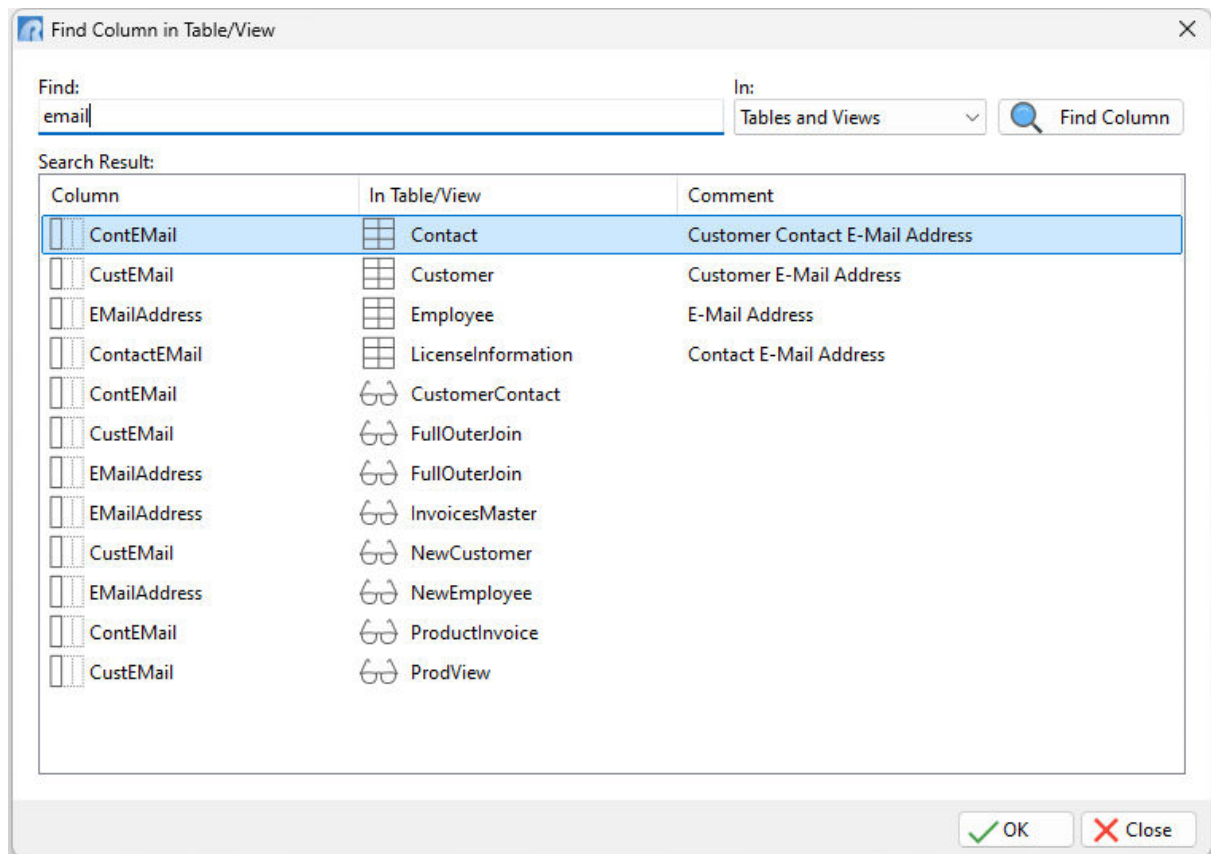
- Added "Save EEP To Folder" menu option for Forms, Reports, Labels, and External Forms where the EEP code for the selected objects may be saved to a folder



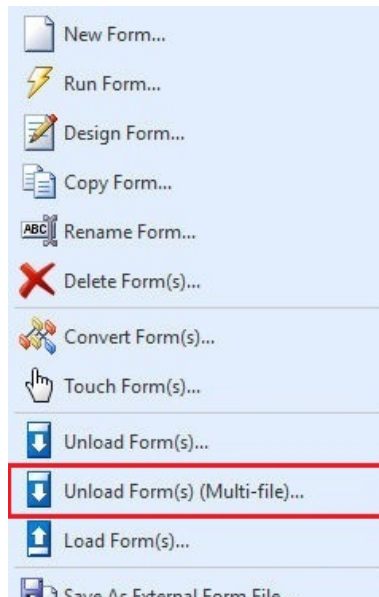
- New "Open Table WHERE..." and "Open View WHERE..." options added to the group bar



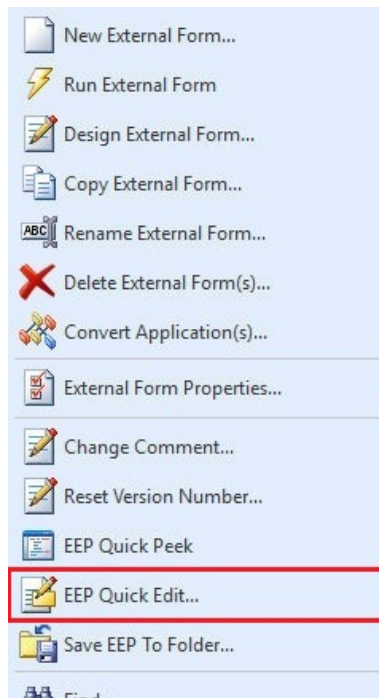
- New Find Column in Table/View group bar options include a search utility to locate column names in tables and views



- Added "Unload ... Multi-file" menu option for Views, Stored Procedures, Forms, Reports, and Labels where several selected items are unloaded into separate files



- Added "EEP Quick Edit" menu option for Forms, Reports, Labels, and External Forms where the object's EEPs may be reviewed and modified from the EEP Map utility, without having to open the object in the designer



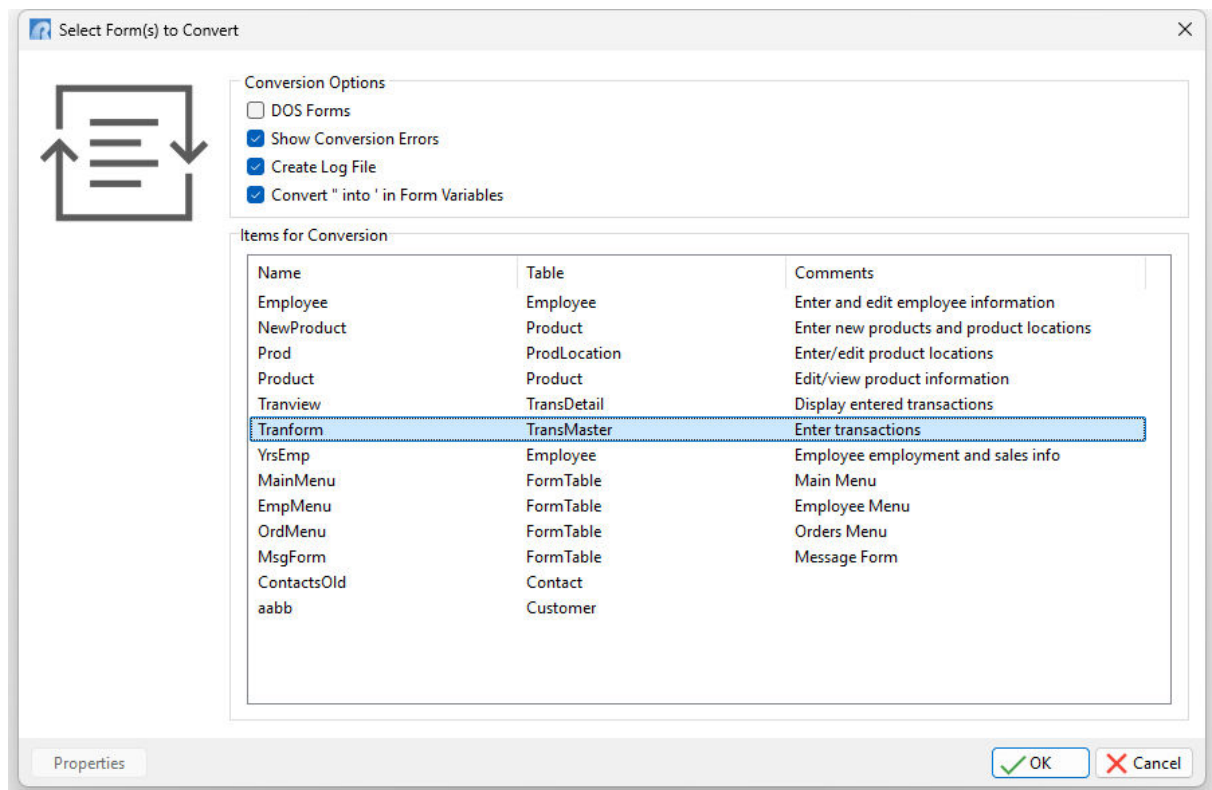
- Enhanced Property Bar with an additional panel where the number of selected/highlighted objects is displayed



- Added Soft Touch Objects setting where the Touch function will only update the date/time stamp of the form/report/label without opening/saving it (and is therefore much faster). The default is unchecked.



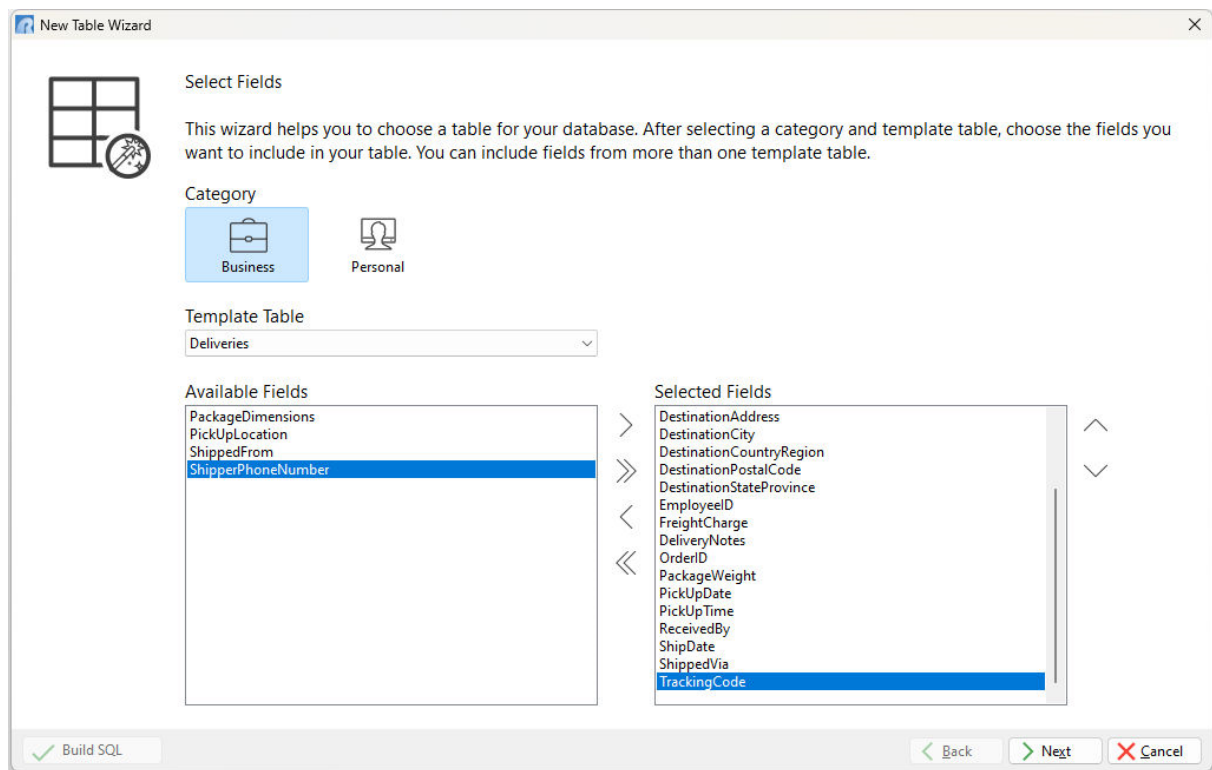
- Enhanced Form/Report/Label conversion dialogs with an improved user interface and added table name and comment



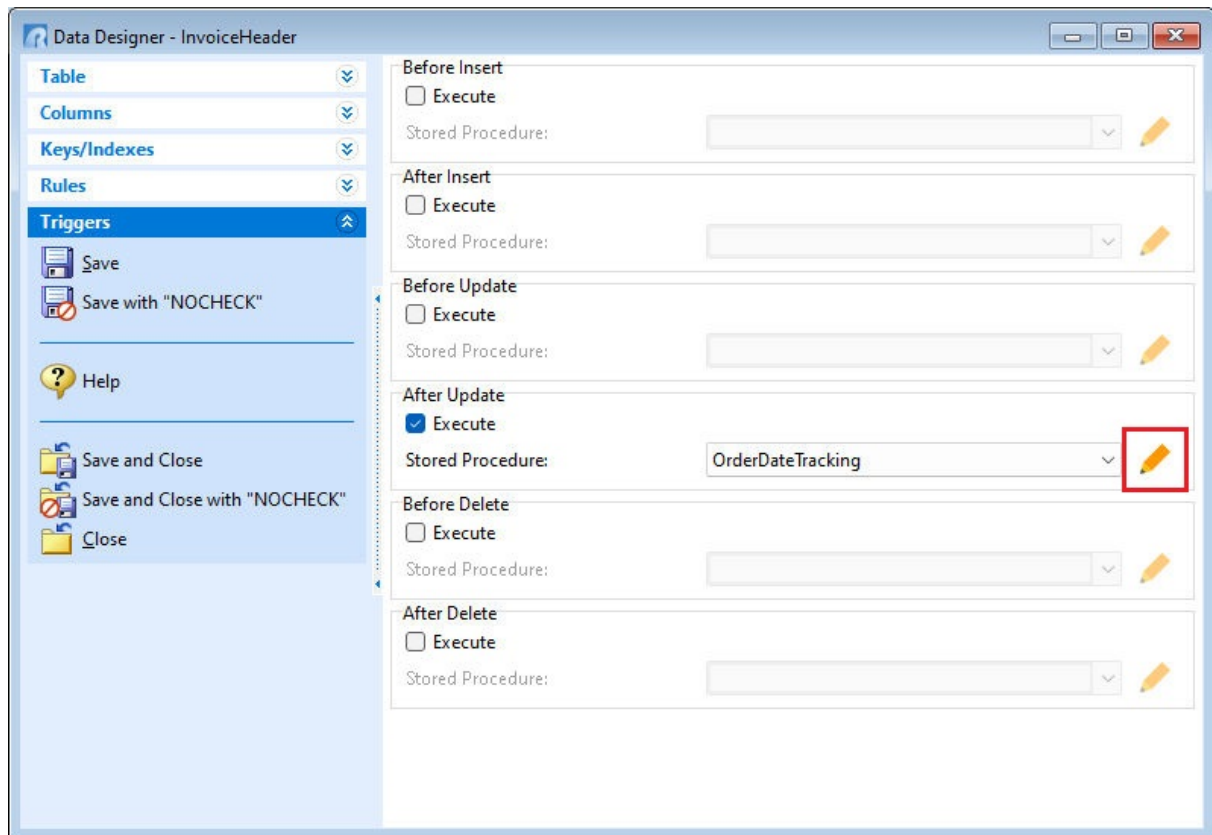
6 Data Designer

The R:BASE 11 Data Designer allows for table design to be easy and efficient. The newest features include:

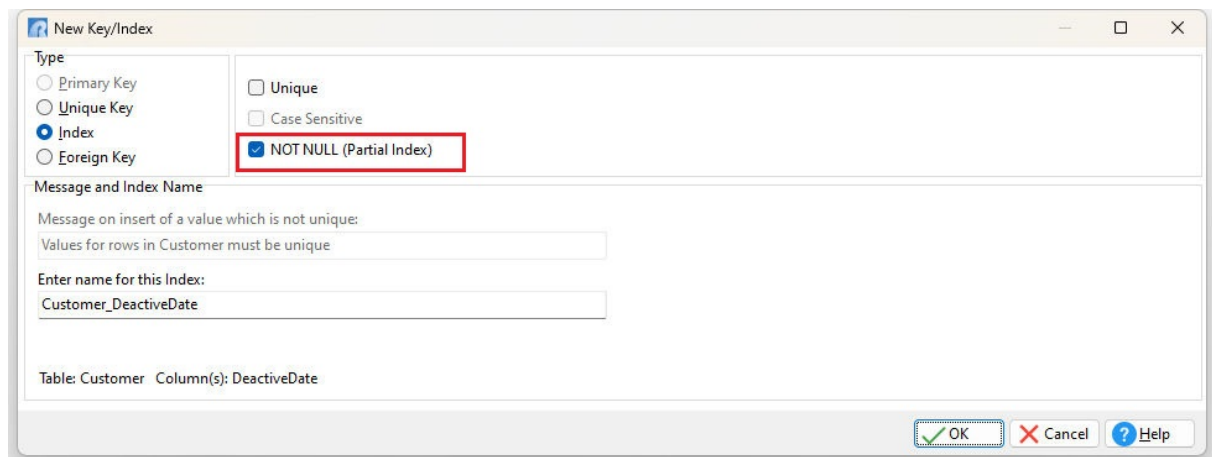
- New Table Wizard
 - 32 available templates (Business/Personal)
 - Custom column definition (data type, not NULL) and ordering
 - Primary key definition (single/multiple fields), auto incrementing value
 - Table comment/description
 - Available SQL syntax



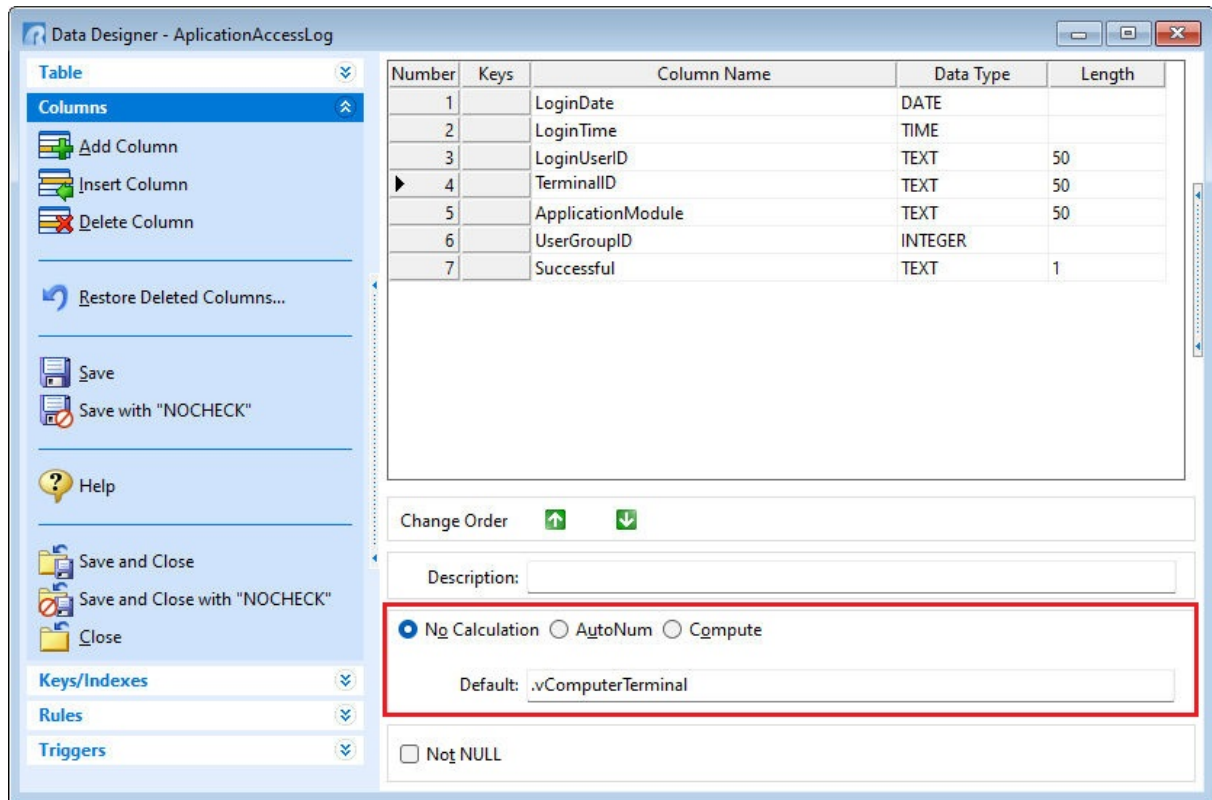
- Added support to directly edit stored procedure code from the Triggers area



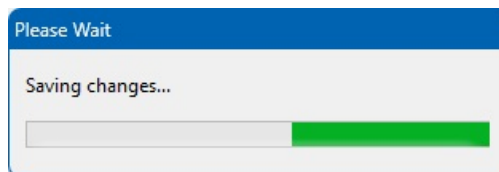
- New menu options to create NOT Null Index definitions



- Enhanced default column value capabilities, where static and global variable can be used (value must be dotted) , which works well in combination with static variables



- Added progress dialog for the table save process to keep the user informed



- Added "In-memory Table" option to saves the table as a temporary in-memory table

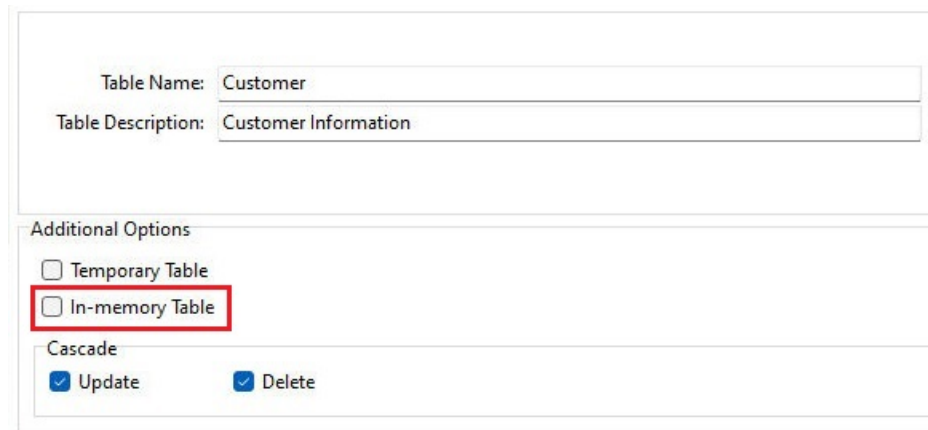


Table Name: Customer

Table Description: Customer Information

Additional Options

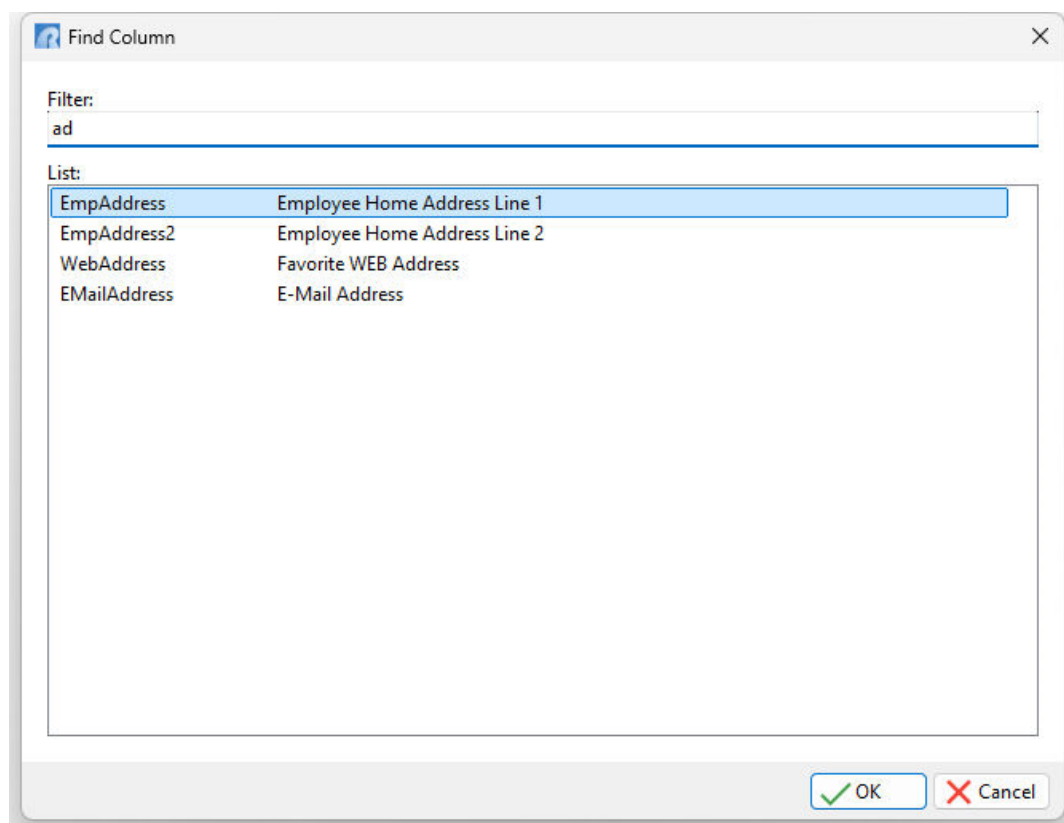
☐ Temporary Table

☒ In-memory Table

Cascade

☒ Update ☒ Delete

- Added Find Column search utility (Ctrl+F8) within the Columns area where a specific column may be located quickly in a large list of column names



Find Column

Filter:
ad

List:

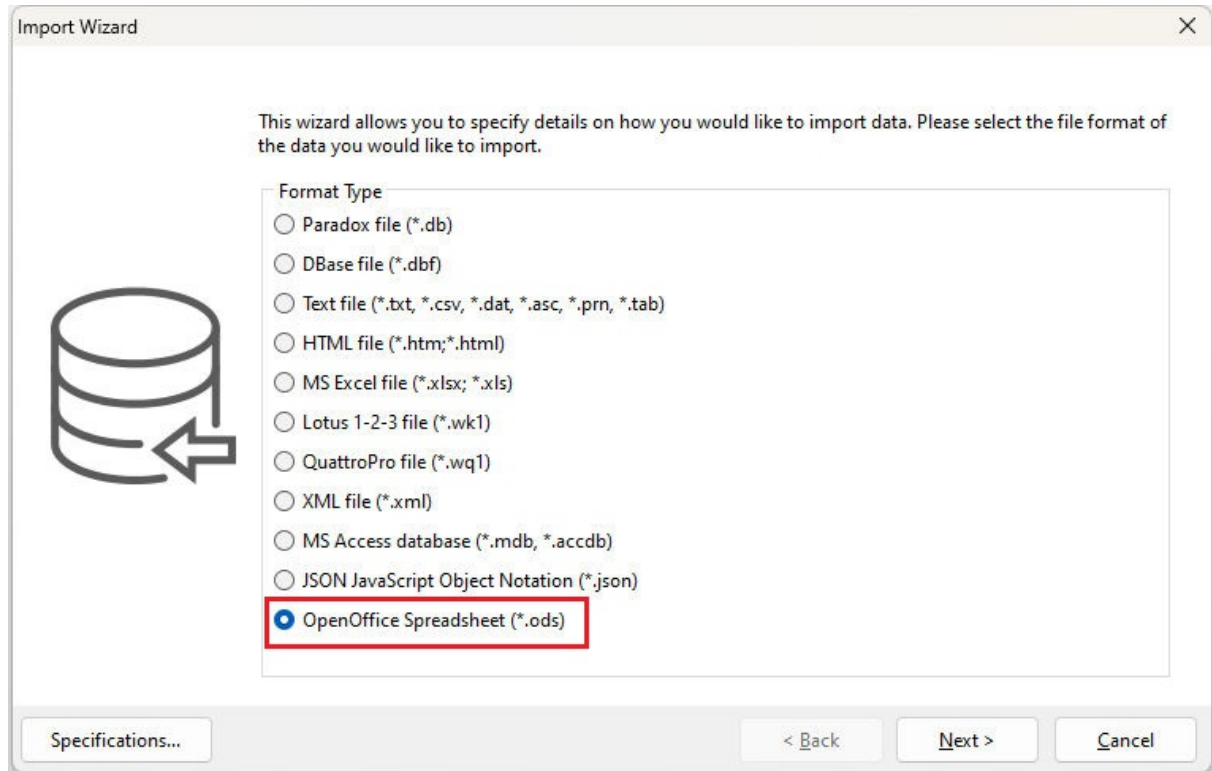
EmpAddress	Employee Home Address Line 1
EmpAddress2	Employee Home Address Line 2
WebAddress	Favorite WEB Address
EMailAddress	E-Mail Address

OK Cancel

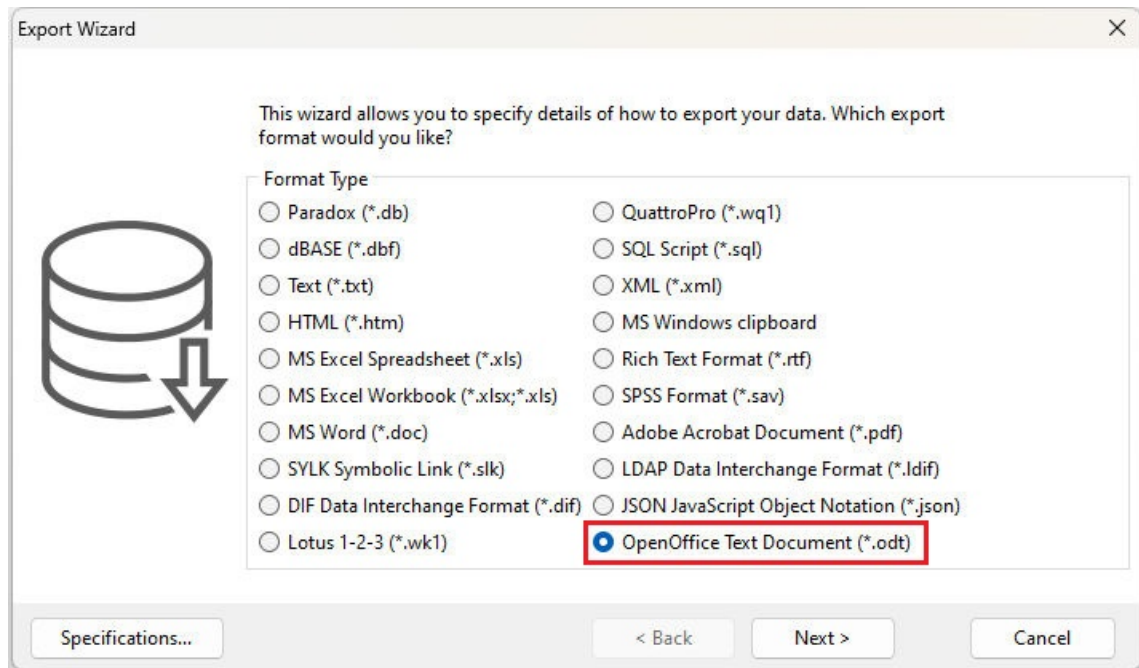
7 File Gateway

The File Gateway utility contains many powerful features to allow the importing and exporting of data. New features include:

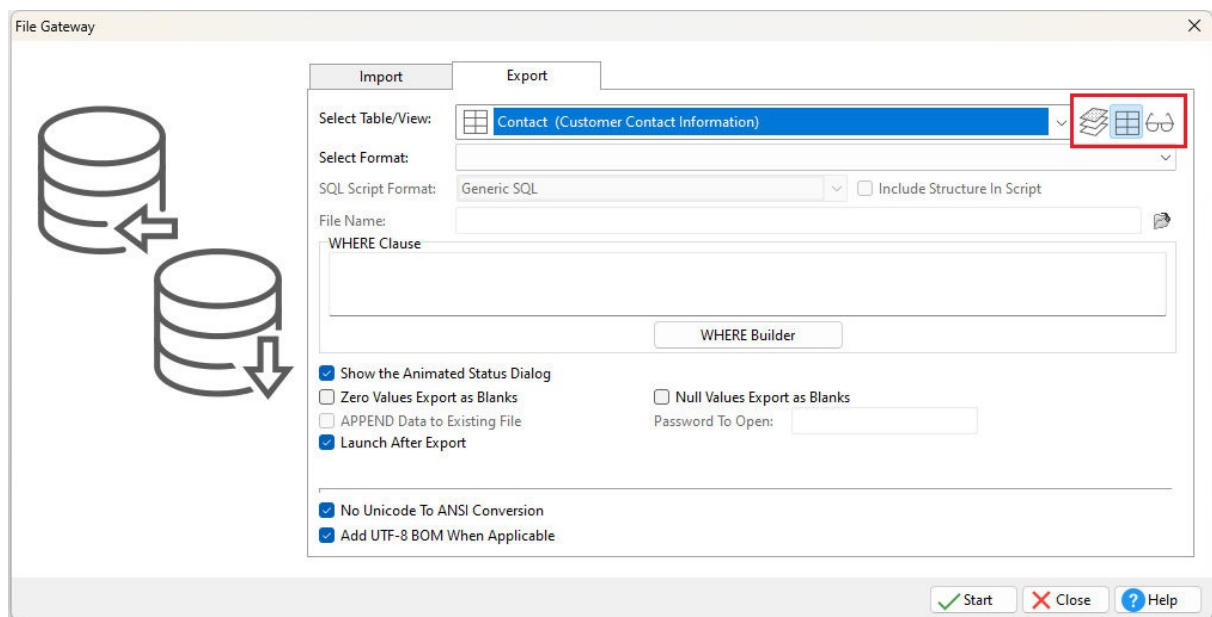
- Added support to import OpenOffice spreadsheet (.ods) files



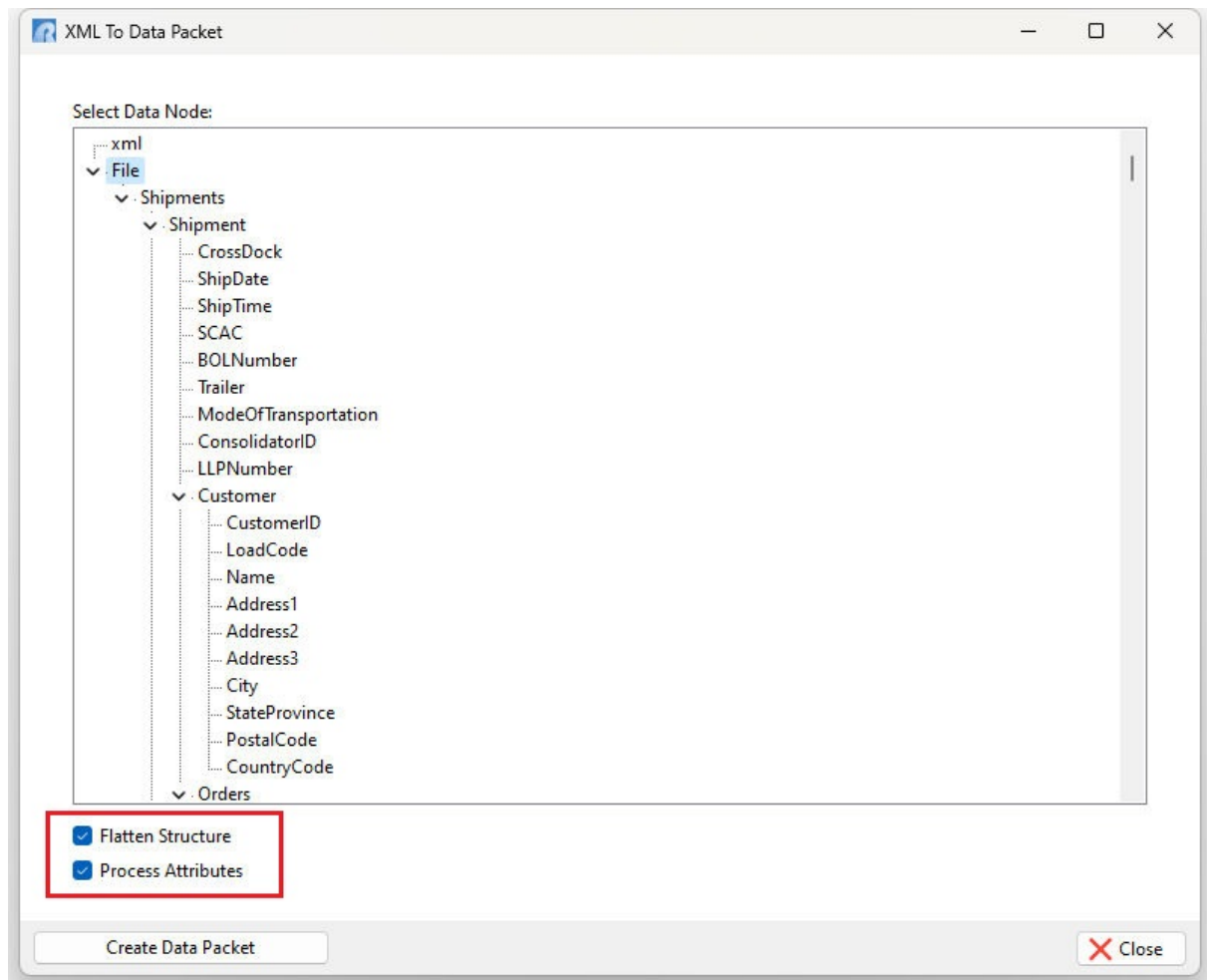
- Added support to export data to OpenOffice Text Document (.odt) files



- Enhanced Export tab, where the Tables/Views combo box can be limited to tables, views, or both



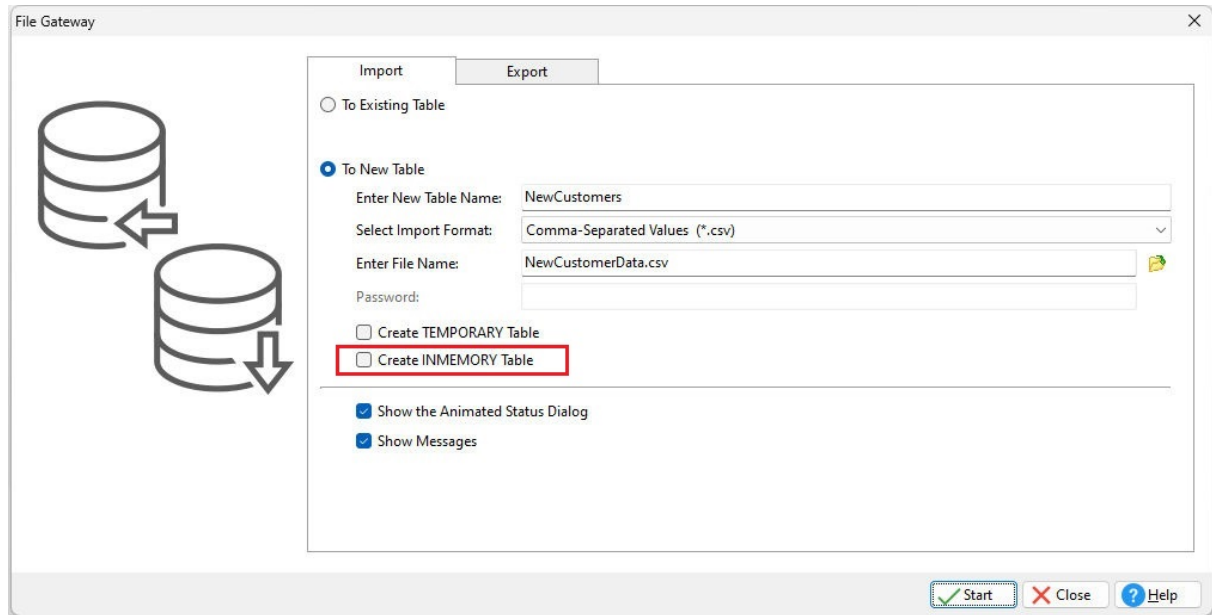
- Enhanced XML import support to flatten the structure and process attribute options for improved loading of data nodes



- Added EXTRA_SHEETS parameter for the GATEWAY EXPORT XLSW option, which specifies whether blank sheets (Sheet2, Sheet3) are automatically included in the exported workbook

```
GATEWAY EXPORT XLSW CustomerList.xlsx +  
SELECT * FROM Customer ORDER by Company +  
OPTION COL_NAMES ON +  
|TAB_NAME Customer List +  
|EXTRA_SHEETS OFF
```

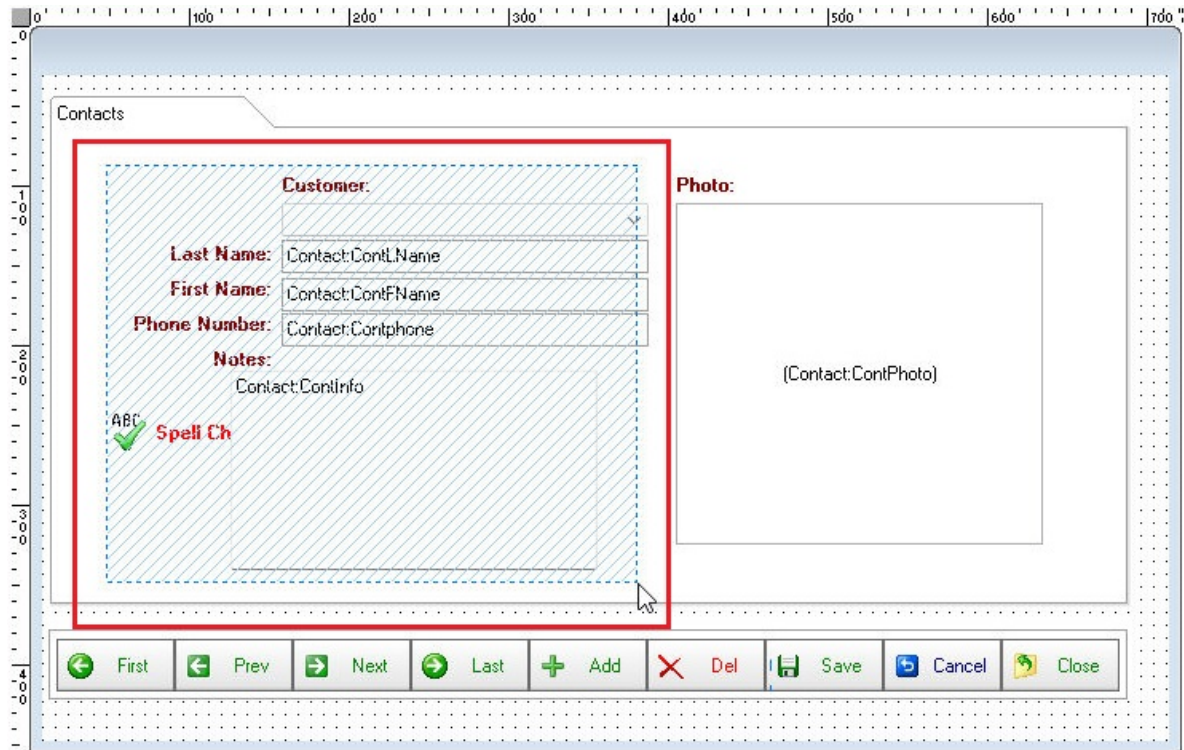
- Added "Create INMEMORY Table" option to create a temporary in-memory table



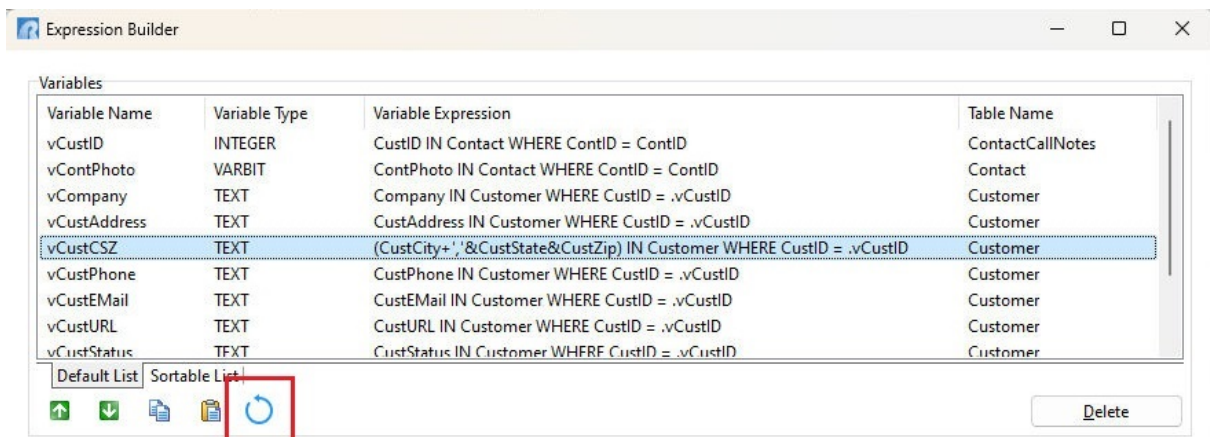
8 Forms

The R:BASE 11 Form Designer has been enhanced to provide more powerful data-driven form controls for increased productivity!

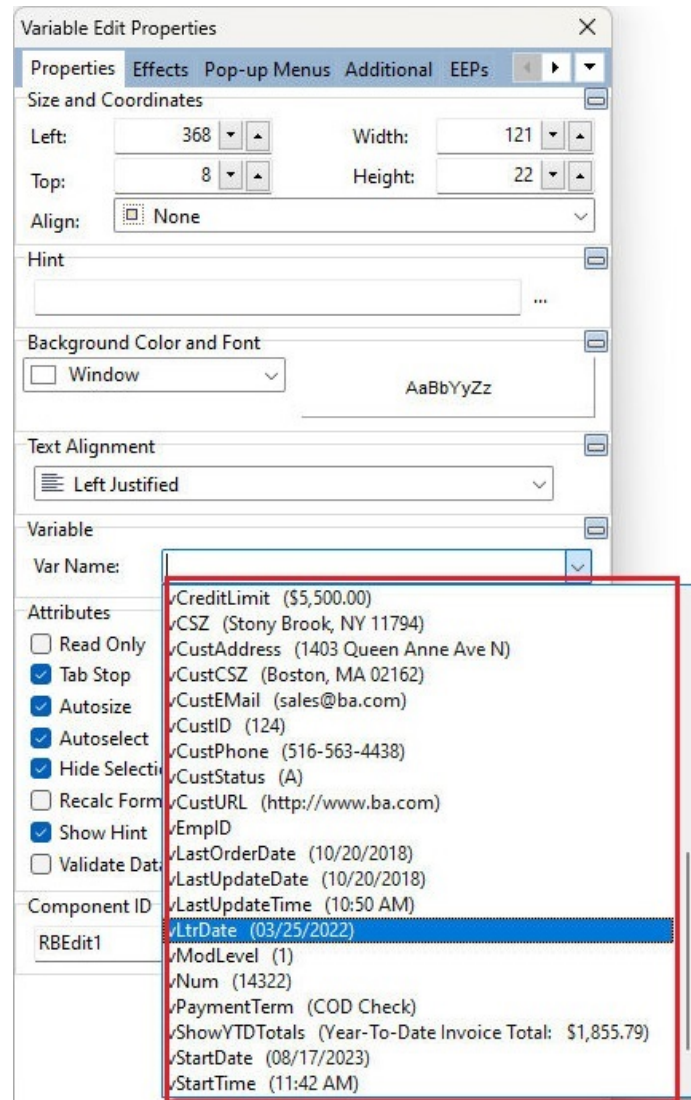
- Enhanced lasso frame for highlighting and selecting multiple objects easier



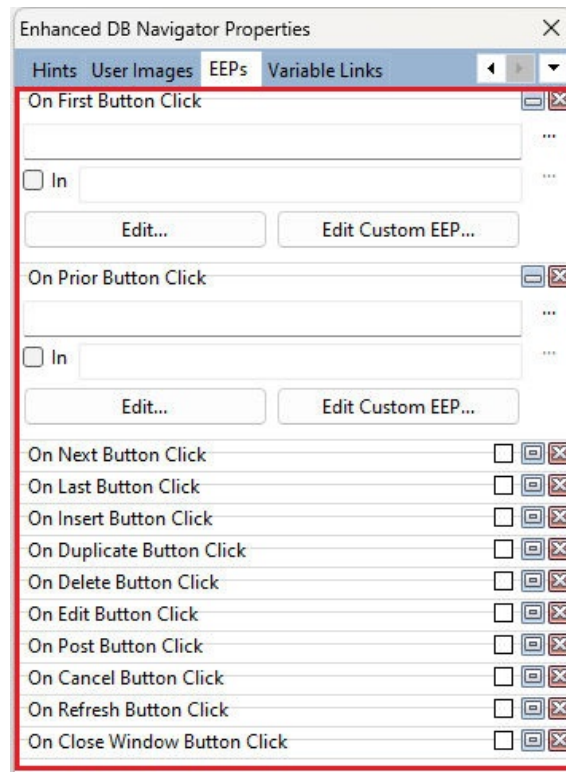
- Added ability to roll back unwanted changes to variable definitions (one variable at a time) in the Expression Builder



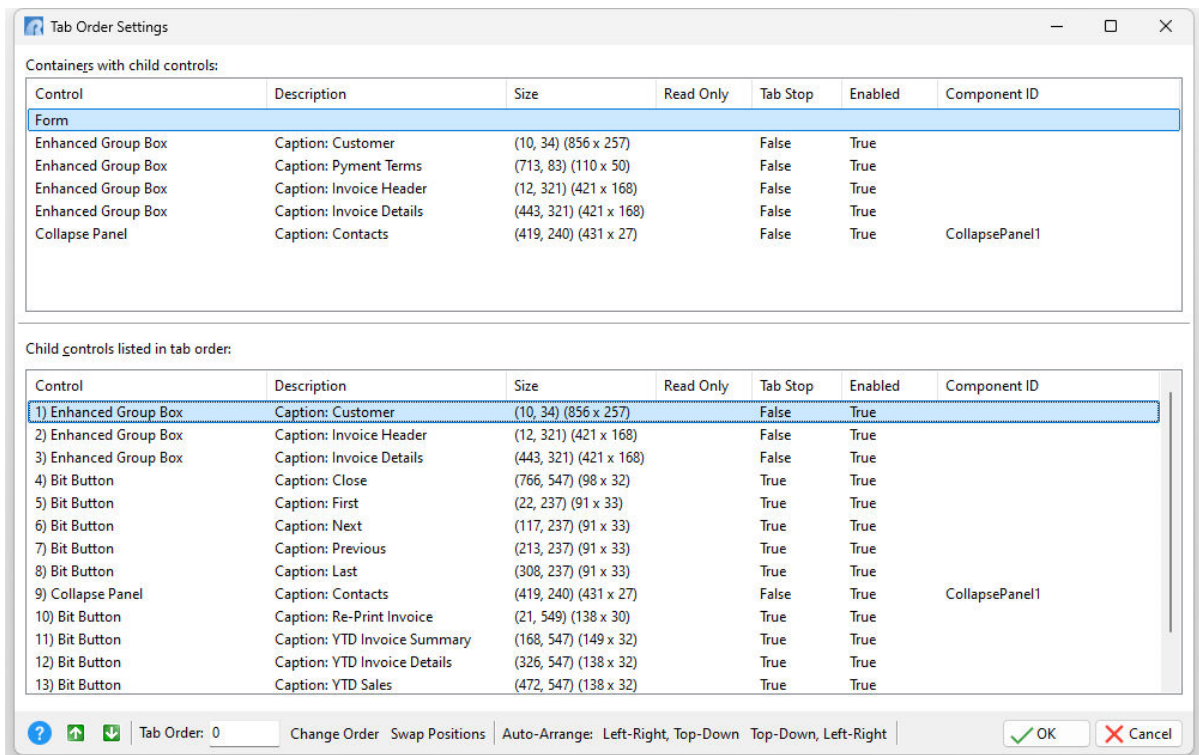
- Enhanced display of variable values within property editors and other areas for variable based controls, to help differentiate between variables



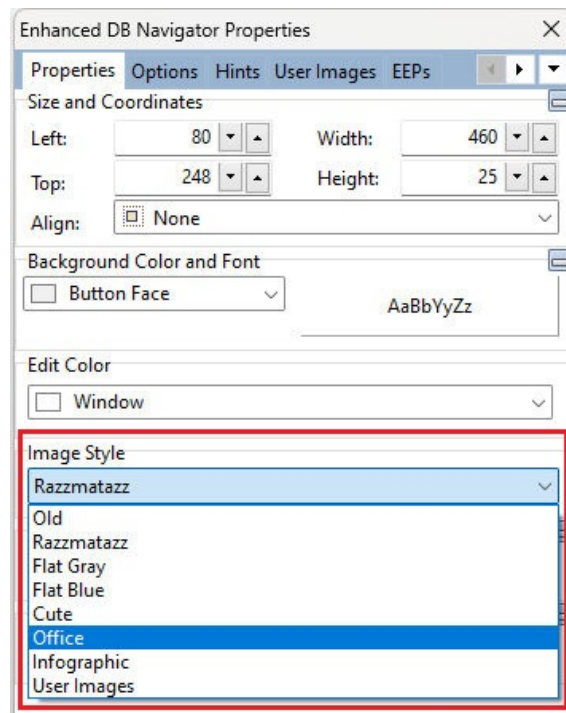
- Added ability to assign an EEP or command file to an Enhanced DB Navigator button



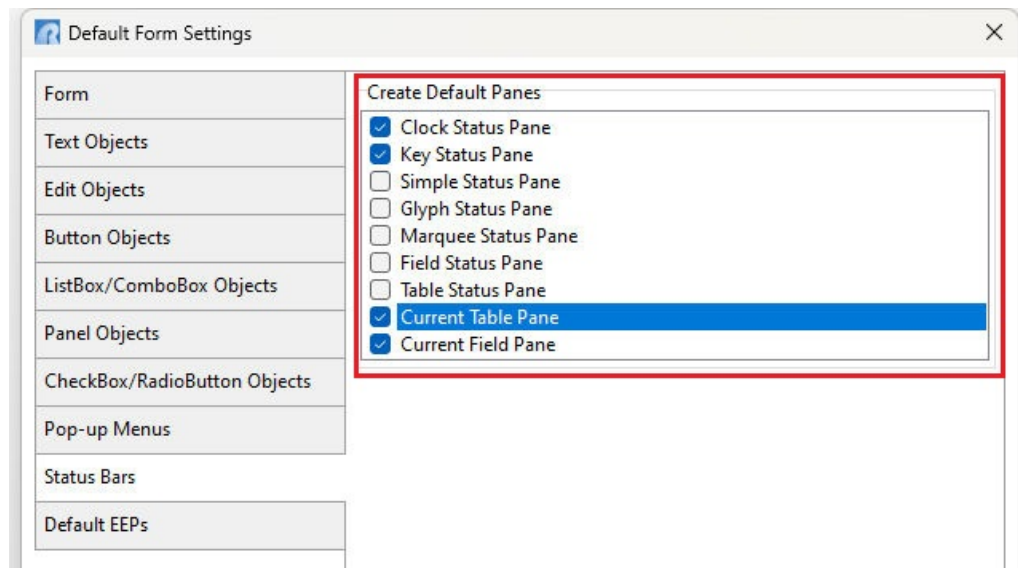
- Improved Tab Order settings window in tabular format



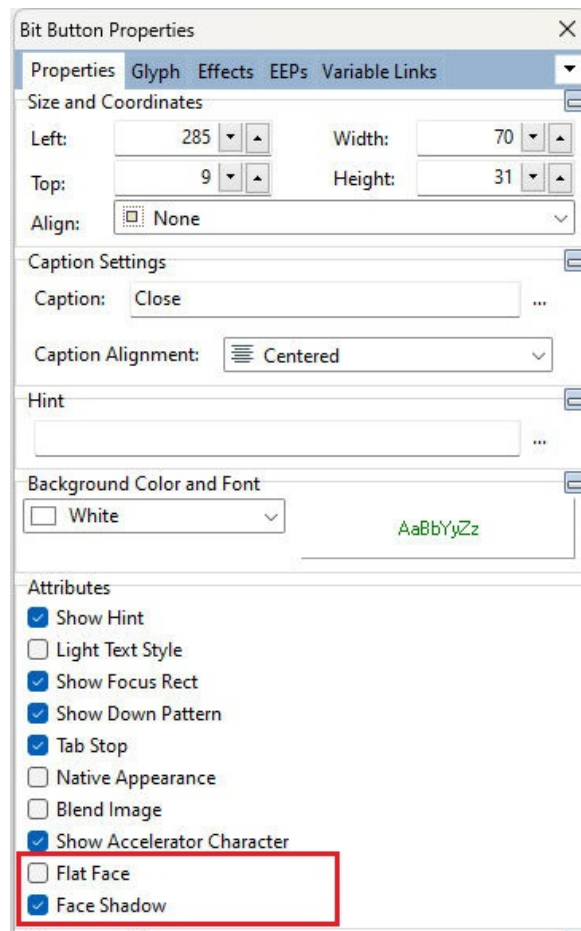
- New Enhanced DB Navigator "Image Style" sets (Flat Gray, Flat Blue, Cute, Office, and Infographic) for use with new operating systems



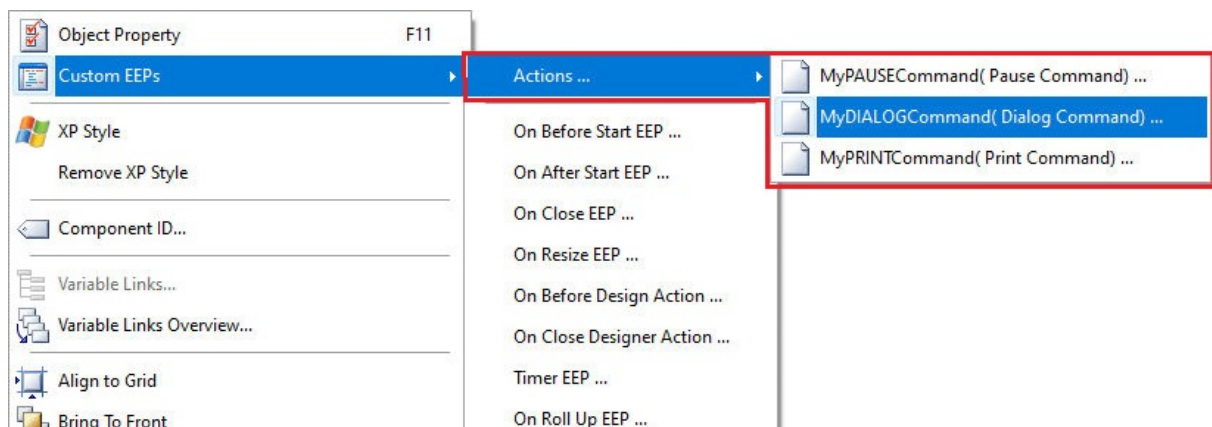
- New Default Form Settings tab to assign the default panes for Status Bar controls



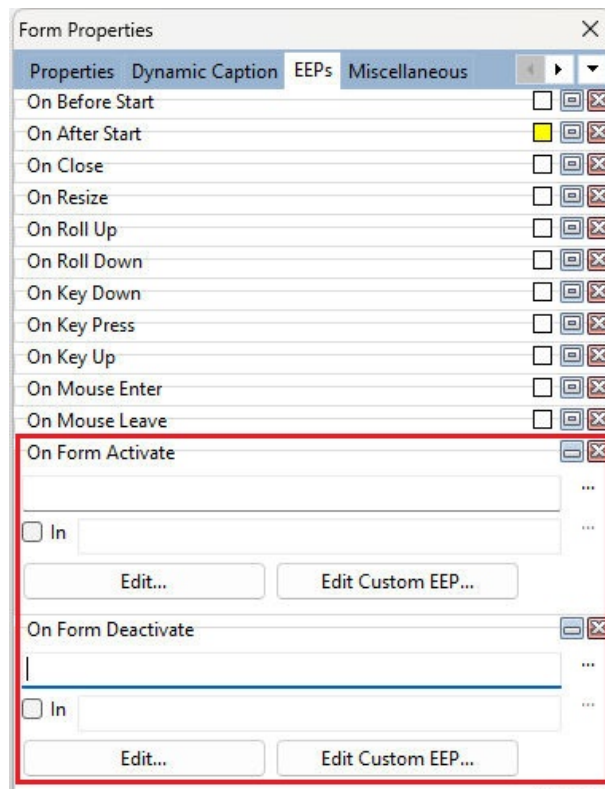
- Enhanced Bit Button and Push Button objects with Flat Face and Flat Shadow properties, for improved display in forms with backgrounds using darker colors



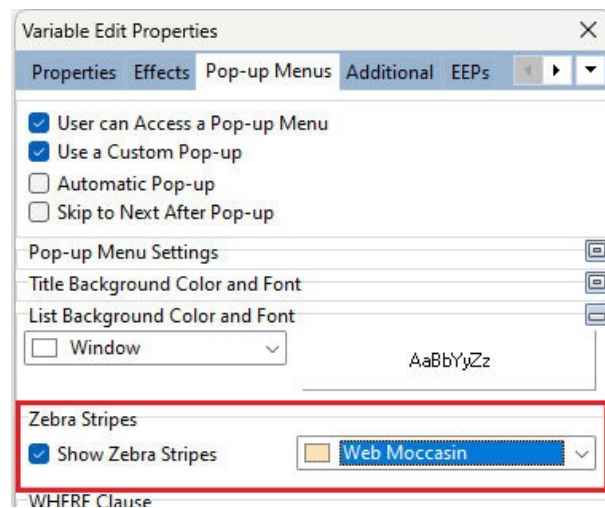
- Enhanced right click context menu for the Custom Form Actions, Static Text, Image, Drop-Down Menu Button, Tree View, Group Bar, List View, Split View, and Tile Menu objects to include the underlying Custom EEP options



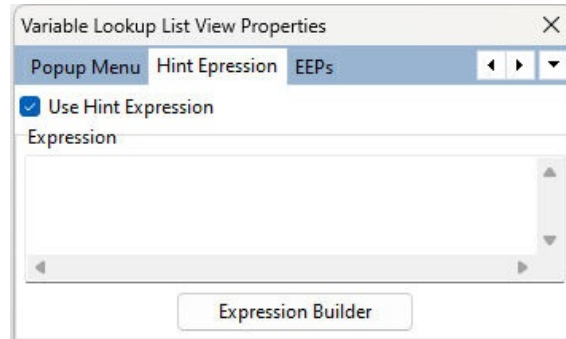
- Added "On Form Activate" and "On Form Deactivate" EEPs, which fire when the form receives focus, and when focus is moved to another form



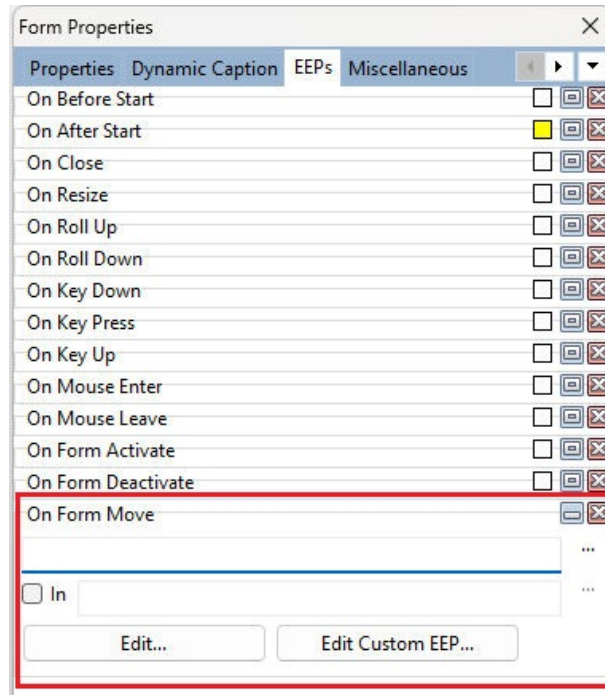
- Enhanced display for Pop-up Menus where zebra stripes can be enabled. The feature is supported the DB Edit, DB Memo, Variable Edit, Variable Memo, Enhanced DB Grid, DB Tree Grid, and DB Grid controls.



- Added Hint Expressions to List View and List Box controls to display a hint for the current mouse hovered row, based on a lookup from another table. The List View controls include the List View, Variable Lookup List View, and DB Lookup List View. List Box controls include the Variable Lookup List Box, Variable User Defined List Box, DB Lookup List Box, and DB User Defined List Box.



- Added "On Form Move" EEP, which fires when the form is moved



- Added right click menu on the Tab Order listed items to allow quick editing of attributes or to show the property editor

Child controls listed in tab order:

Control	Description	Size	Read
1) DB Edit	Table: Customer, Field: Company	(497, 14) (189 x 21)	False
2) DB Edit	Table: Customer, Field: CustAddr...	(497, 36) (189 x 21)	False
3) Variable Edit	Variable: vCustCSZ	(497, 58) (189 x 21)	True
4) DB Edit	Table: Customer, Field: CustPhone	(497, 123) (189 x 21)	False
5) DB Edit	Table: Customer, Field: CustURL	(497, 80) (189 x 21)	False
6) DB Edit	Table: Customer, Field: CustEmail	(497, 101) (189 x 21)	False
7) DB Edit	Table: Customer, Field: LastUpdat...	(497, 145) (189 x 21)	False
8) DB Edit	Table: Customer, Field: LastOrder...	(497, 167) (189 x 21)	False
9) DB Radio Group	Table: Customer, Field: CustStatus	(713, 15) (110 x 63)	False
10) Enhanced Group Box	Caption: Pyment Terms	(713, 83) (110 x 50)	False
11) Enhanced Group Box	Caption: Credit Limit	(721, 158) (92 x 21)	False
12) DB Edit	Table: Customer, Field: CreditLimit	(721, 158) (92 x 21)	False
13) DB Grid	Table: Customer	(9, 18) (381 x 163)	False

☒

☒

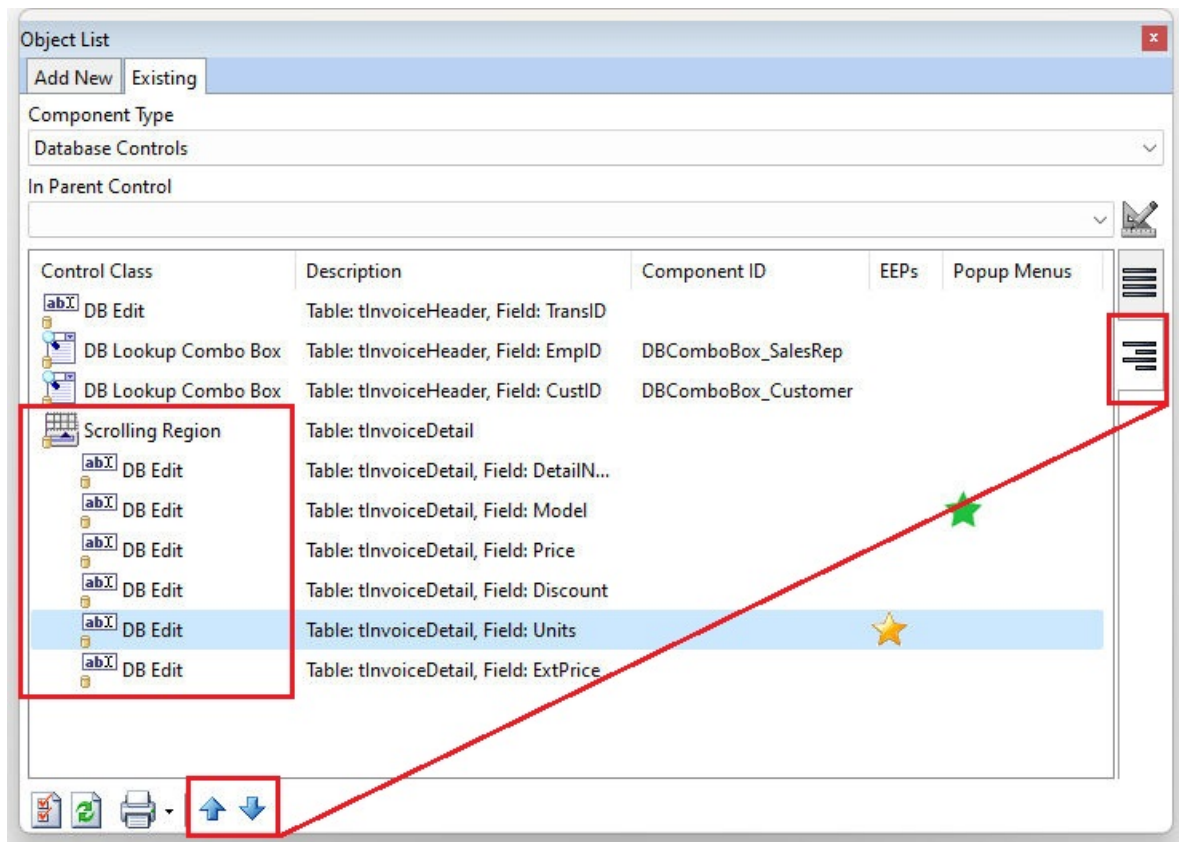
☒

- Added right click menu on the Tab Order child items to filter the results by Read Only, Tab Stop, Enabled, and Component ID values

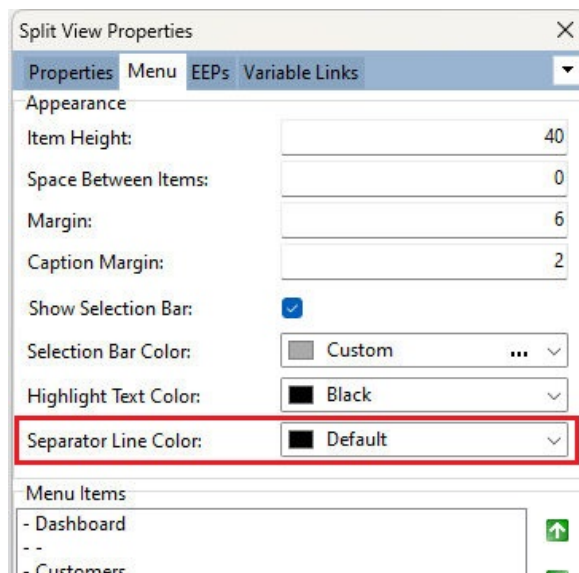
Child controls listed in tab order:

Control	Description	Size	Read Only	Tab Stop	Enabled	Component ID
1) DB Edit	Table: Customer, Field: Company	(497, 14) (189 x 21)			True	
2) DB Edit	Table: Customer, Field: CustAddr...	(497, 36) (189 x 21)			True	
3) Variable Edit	Variable: vCustCSZ	(497, 58) (189 x 21)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	True	
4) DB Edit	Table: Customer, Field: CustPhone	(497, 123) (189 x 21)			True	
5) DB Edit	Table: Customer, Field: CustURL	(497, 80) (189 x 21)			True	
6) DB Edit	Table: Customer, Field: CustEmail	(497, 101) (189 x 21)			True	
7) DB Edit	Table: Customer, Field: LastUpdat...	(497, 145) (189 x 21)			True	
8) DB Edit	Table: Customer, Field: LastOrder...	(497, 167) (189 x 21)			True	
9) DB Radio Group	Table: Customer, Field: CustStatus	(713, 15) (110 x 63)	False	False		
10) Enhanced Group Box	Caption: Pyment Terms	(713, 83) (110 x 50)	False	False		

- Enhanced Existing tab of the Object List toolbar to list the control hierarchy according to the tab order, with two buttons added at the bottom to control the tab order of the selected control



- Added Split View property to alter the separator line color



- When using the Character Case property in form Edit/Memo controls, the Title Case option does not capitalize the second value in a hyphenated string. An application PROPERTY was implemented to alter the behavior of Title casing, where the first letter in the second value of a hyphenated string is made upper case. The default value is OFF.

```
PROPERTY APPLICATION HYPHEN_AS_WORD_SEPARATOR ON
```

- Added "Show Check Box" setting to the Enhanced Group Box control, which specifies if the group box content is enabled/disabled. The check box appears on the control's border. The check box may be displayed/hidden, and also checked/unchecked in EEPs:

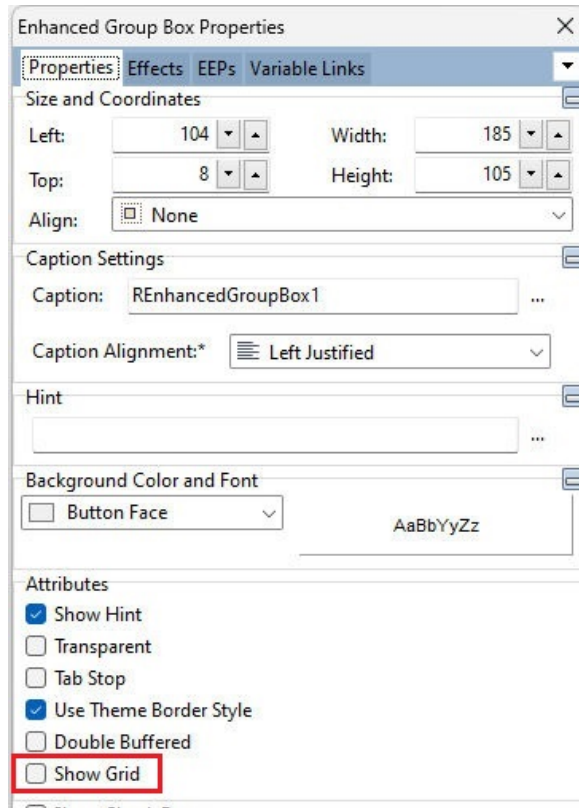
```
PROPERTY EGroupBox1 SHOWCHECKBOX TRUE/FALSE
```

```
PROPERTY EGroupBox1 CHECKED TRUE/FALSE
```

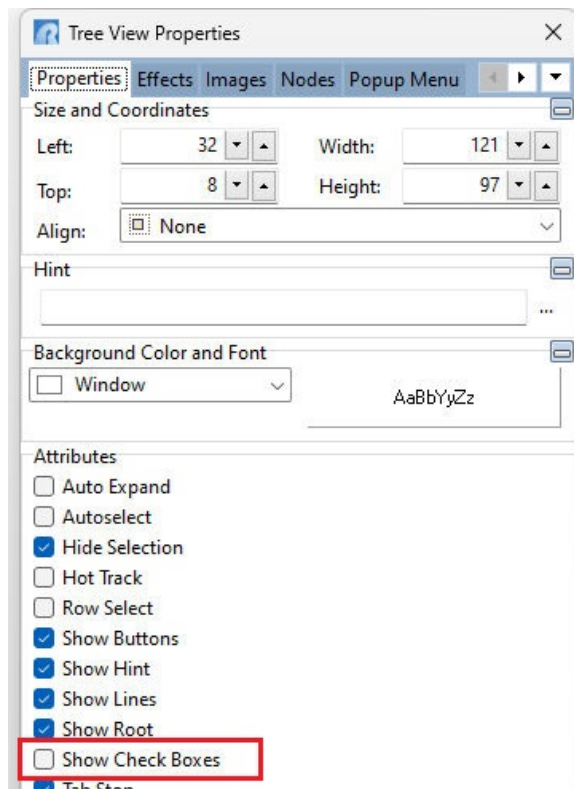
The screenshot shows the 'Enhanced Group Box Properties' dialog box with the 'Attributes' section expanded. The 'Show Check Box' and 'Checked' properties are checked and highlighted with a red rectangle.

Property	Value
Size and Coordinates	
Left	421
Width	229
Top	15
Height	203
Align	None
Caption Settings	
Caption	REnhancedGroupBox1
Caption Alignment*	Left Justified
Hint	
Background Color and Font	
Button Face	<input type="checkbox"/>
Font	AaBbYyZz
Attributes	
Show Hint	<input checked="" type="checkbox"/>
Transparent	<input type="checkbox"/>
Tab Stop	<input type="checkbox"/>
Use Theme Border Style	<input checked="" type="checkbox"/>
Double Buffered	<input type="checkbox"/>
Show Grid	<input type="checkbox"/>
Show Check Box	<input checked="" type="checkbox"/>
Checked	<input checked="" type="checkbox"/>
Component ID	

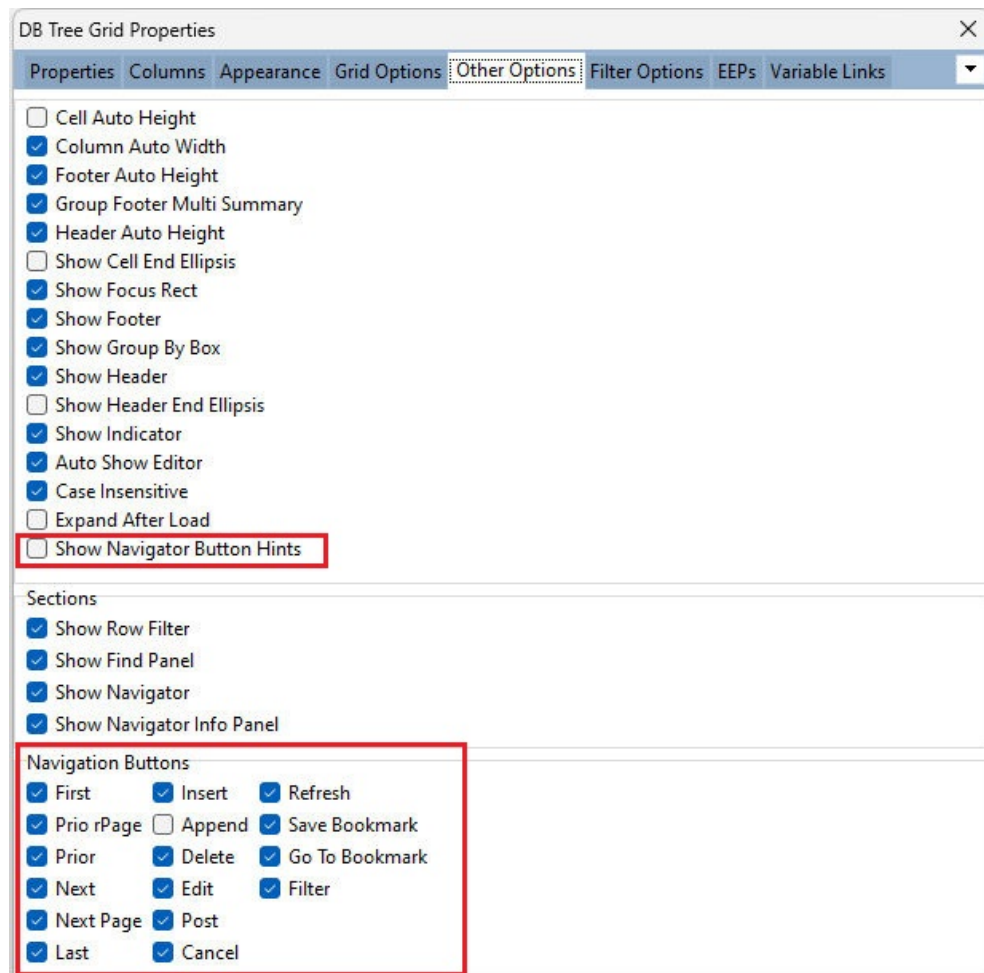
- Added "Show Grid" property for the Enhanced Group Box to display a grid pattern on the box



- Check box support implemented for the Tree View and DB Tree View controls, where a check box column is displayed at the far left of the list



- Enhanced DB Tree Grid properties to toggle what buttons may be displayed on the Navigator, including whether to display the button hints



- Enhanced DB Tree List control with additional properties for selecting a specific node. The TOPNODE property sets the topmost node passing the node's key value. If the value is empty, the very first node in the tree is used. The SELECTNODEBYID property sets the selected node by an ID value.

```
PROPERTY DBTreeList TOPNODE ' '
PROPERTY DBTreeList SELECTNODEBYID 'Value'
```

- Enhanced File List Box control to optionally include the file Size, Creation Time, Last Access Time, and Last Write Time values

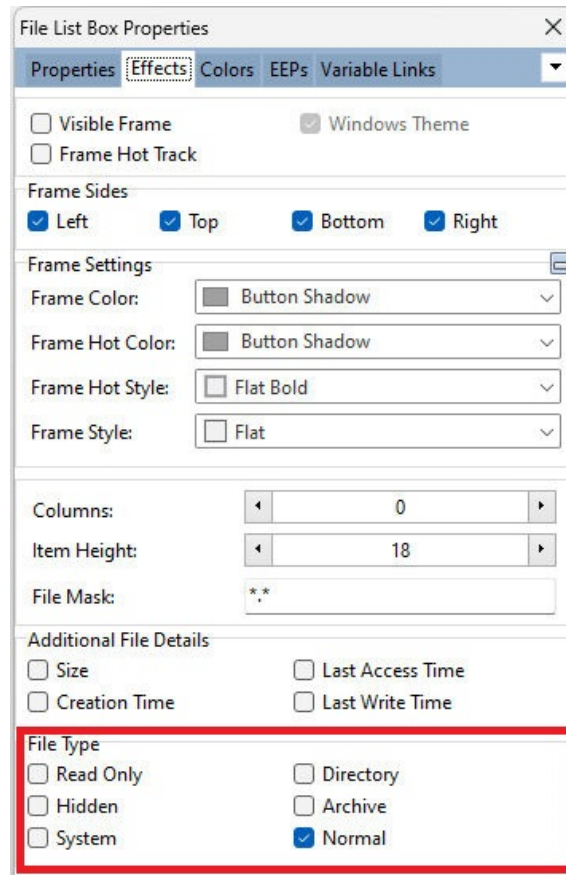
The screenshot shows the 'File List Box Properties' dialog box with the 'Effects' tab selected. The 'Additional File Details' section is highlighted with a red box. It contains four checkboxes: 'Size', 'Creation Time', 'Last Access Time', and 'Last Write Time'. The 'Columns' property is set to 0, and the 'Item Height' is set to 18. The 'File Mask' is set to *.*.

- Added form-level ENABLEDATASETSCROLL property to disable processing when the dataset is scrolled. An example is when a dataset is loaded in a grid, where partial or all rows in the dataset are traversed. During the traversal, there are processes performed for each dataset row to synchronize things (e.g. variables, control states, etc.). If ENABLEDATASETSCROLL is FALSE, these processes are not performed, making faster response times. The feature is particularly useful in grid-like controls where multiple rows are loaded. The default value is TRUE.

```
PROPERTY RBASE_FORM ENABLEDATASETSCROLL 'FALSE'
```


- Enhanced File List Box providing File Type options for file attributes to include/exclude from the list box: Read Only, Hidden, System, Directory, Archive, Normal. The below FILETYPE properties may also be added/removed within the property set using the following syntax:

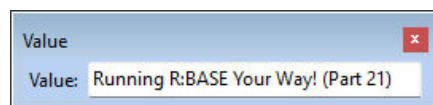
```
PROPERTY RBFileBox1 FILETYPE '+DIRECTORY'
PROPERTY RBFileBox1 FILETYPE '+NORMAL'
PROPERTY RBFileBox1 FILETYPE '+READONLY'
PROPERTY RBFileBox1 FILETYPE '-HIDDEN'
PROPERTY RBFileBox1 FILETYPE '-ARCHIVE'
PROPERTY RBFileBox1 FILETYPE '-SYSTEM'
```



- Added column-level SHOWEDITOR property to launch the BLOB Editor for a specific column within forms

```
PROPERTY TABLE_COLUMN[ContactCallNotes->CallNotes] SHOWEDITOR ' '
```

- New Value toolbar where a control's caption/text can be edited directly from the toolbar



- Enhanced Tab Order Settings with added Auto-Arrange buttons which offer a quick and simple method to arrange the tab order for a group of controls in a container, where the controls' X and Y pixel coordinates ("Top" and "Left" properties) dictates the tab order. The controls' locations would only need to be placed in the desired coordinates needed for the tab focus movement, and the single button would assign the tab order to either the "Left-Right, Top-Down" or "Top-Down, Left-Right" order.

Tab Order Settings

Containers with child controls:

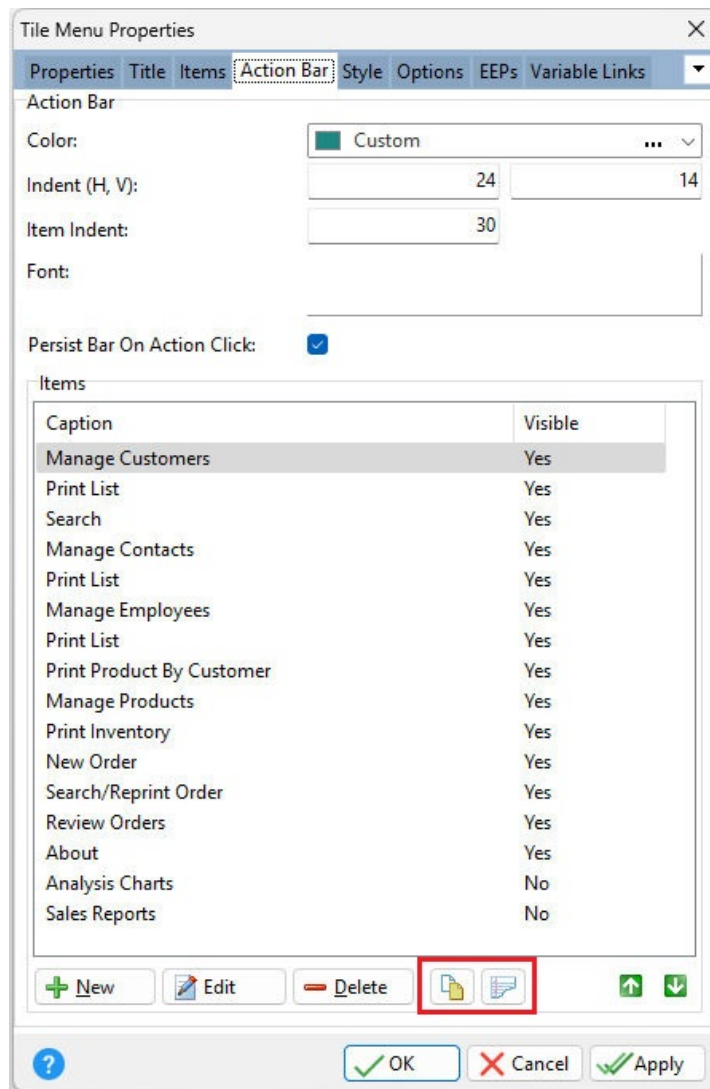
Control	Description	Size	Read Only	Tab Stop	Enabled	Component ID
Form						
Enhanced Tab Page	Index: 0, Caption: Customer and ...	(1, 20) (679 x 283)				EnhancedTab_Page0
Enhanced Group Box	Caption:	(4, 319) (684 x 50)		False	True	EnhancedGroupBox

Child controls listed in tab order:

Control	Description	Size	Read Only	Tab Stop	Enabled	Component ID
1) Bit Button	Caption: First	(8, 11) (74 x 33)		True	True	EGB_First
2) Bit Button	Caption: Prev	(82, 11) (74 x 33)		True	True	EGB_Prev
3) Bit Button	Caption: Next	(156, 11) (74 x 33)		True	True	EGB_Next
4) Bit Button	Caption: Last	(230, 11) (74 x 33)		True	True	EGB_Last
5) Bit Button	Caption: Add	(304, 11) (74 x 33)		True	True	EGB_Add
6) Bit Button	Caption: Del	(378, 11) (74 x 33)		True	True	EGB_Del
7) Bit Button	Caption: Save	(452, 11) (74 x 33)		True	True	EGB_Save
8) Bit Button	Caption: Cancel	(526, 11) (74 x 33)		True	True	EGB_Cancel
9) Bit Button	Caption: Refresh	(600, 11) (74 x 33)		True	True	EGB_Refresh

Tab Order: 0 Change Order Swap Positions Auto-Arrange: Left-Right, Top-Down Top-Down, Left-Right OK Cancel

- Enhanced Tile Menu control's Action Bar with "Duplicate" and "Edit Custom EEP" buttons to easily reuse and modify Action Bar items



- Enhanced Value toolbar to expand automatically when a selected item's characters do not fit/display completely in the toolbar
- Added support for checking multiple items for List View, Variable Lookup List View, and DB Lookup List View controls where pressing the [Space] key will update the check box state of the selection when there are multiple highlighted items

9 Functions

The following enhancements have been made to the R:BASE 11 functions:

- New **CVAL('LAST_MOD')** function to return the date and time stamp (text) for the last modification made to the database data

```
SET VAR vLastMod TEXT = (CVAL('LAST_MOD'))
```

- New **CVAL('LAST_SCHEMA_MOD')** function to return the date and time stamp (text) for the last modification made to the database schema

```
SET VAR vLastSchemaMod TEXT = (CVAL('LAST_SCHEMA_MOD'))
```

- New **FISHER** statistical function to return the Fisher transformation. This transformation produces a function that is normally distributed rather than skewed.

```
SET VAR vFisherResult DOUBLE = (FISHER(0.063))
```

- New **RANKAVG** statistical function to return the statistical rank of a given value, within a supplied array of values

```
SET VAR vRankAvg DOUBLE = (RANKAVG('1534','Score','TestScores',1))
```

- New **RANKEQ** statistical function to return the statistical rank of a given value, within a supplied array of values

```
SET VAR vRankEQ DOUBLE = (RANKEQ('80,000','InvoicePrice','CarSales',1))
```

- Enhanced **SELECT... LISTOF(ColName)** function to support up to 10,000 characters
- New **CVAL('QUALKEY TABLES')** function to return tables which contain a QualKey column

```
SET VAR vQualkeyTables TEXT = (CVAL('QUALKEY TABLES'))
```

- New **CVAL('QUALKEYS')** function to return columns assigned as a QualKeys

```
SET VAR vQualkeyColumns TEXT = (CVAL('QUALKEYS'))
```

- New **CVAL('DBCCOMMENT')** function to retrieve the comments for a connected database

```
SET VAR vDBComment TEXT = (CVAL('DBCCOMMENT'))
```

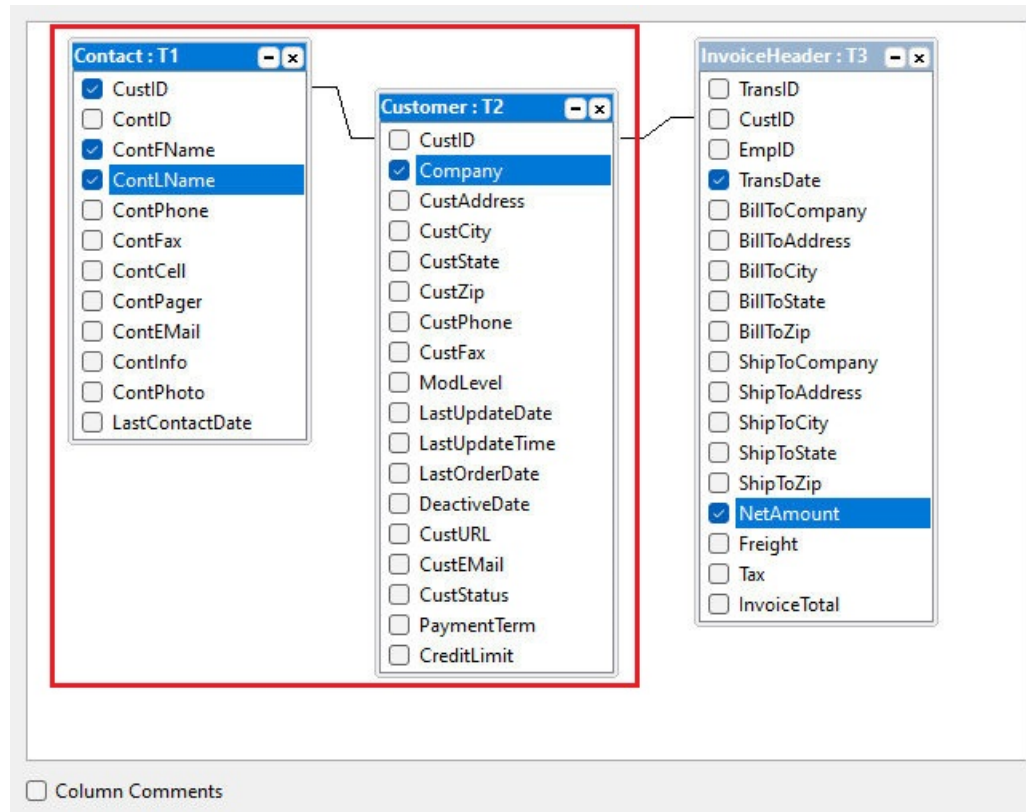
- Enhanced **CTXT** function to support capturing VARCHAR data to a TEXT string
- Enhanced **SFIL** function which can fill a NOTE data type value to the maximum size limit of 10,000 characters (was 4,092)
- Enhanced **TINFO** function to specify a USER name for the first parameter to return those permissions

```
SET VAR vUserPermission = (TINFO('Mary',41,-1))
```

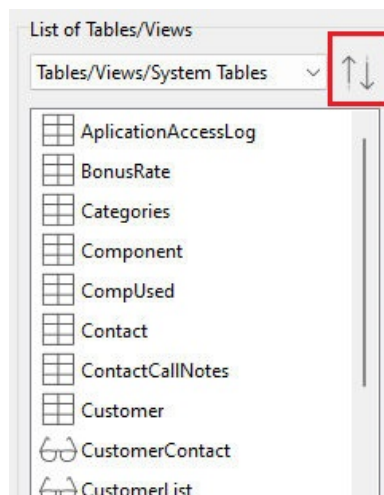
10 Query Builder/Query Wizard

The R:BASE 11 Query Builder and Query Wizard have been modernized for efficient query building. The utilities offer following new features:

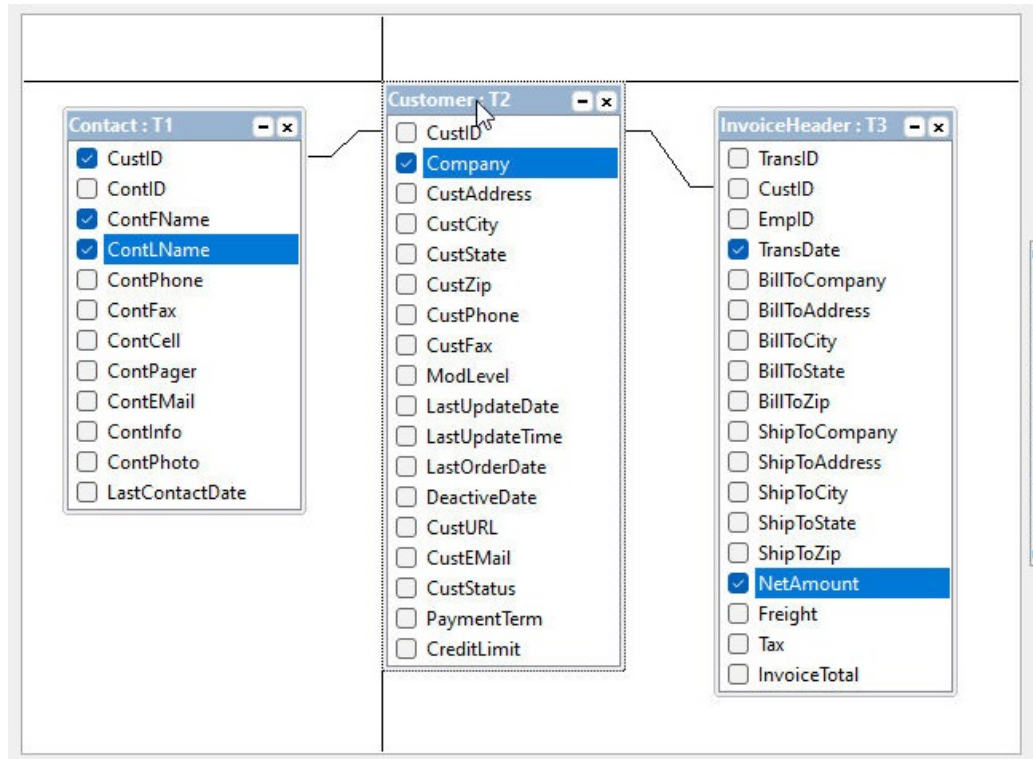
- Added multi-selection (click and drag lassoing) with group moving of tables/views in the Query Wizard



- Added ability to sort the list of table/view objects

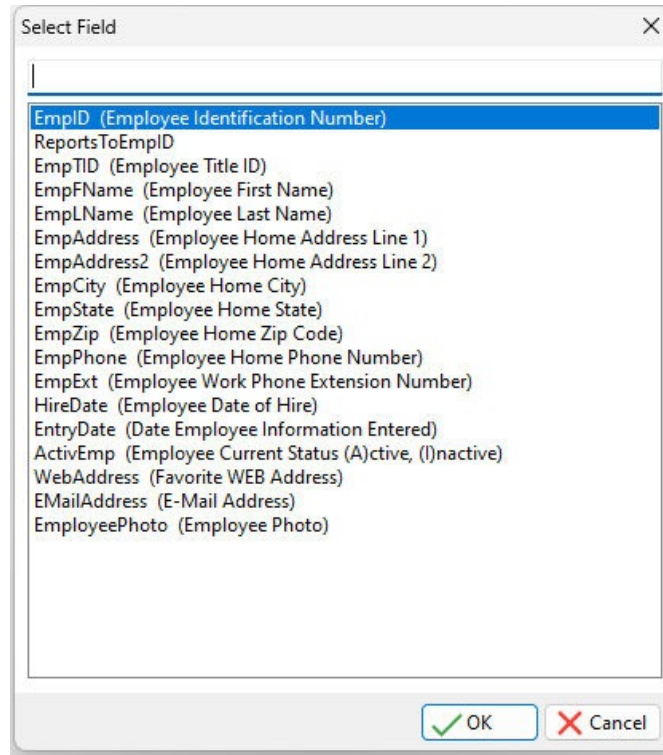


- Improved ability to arrange tables/views with [Shift]+Drag functionality to move objects along 0, 90, 180, 270 degree drag paths in the Query Wizard. When Shift+Drag is at play, the drag can only move in a cross direction. The reference point is the current mouse cursor when the Shift+Drag was initiated.

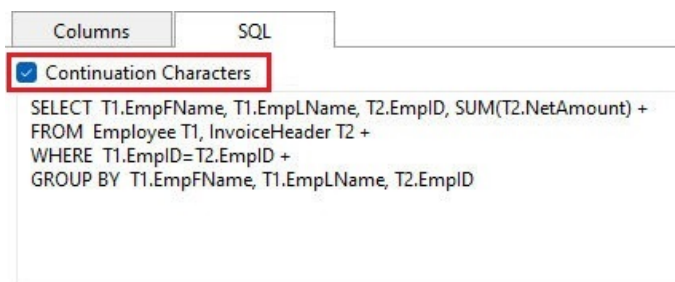
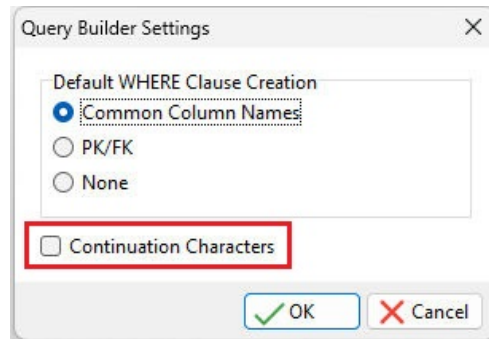


- Enhanced table/view alignment with snap to grid in the Query Wizard

- Added field selection dialog, with filter, for tables with many columns (drag field to the table name)



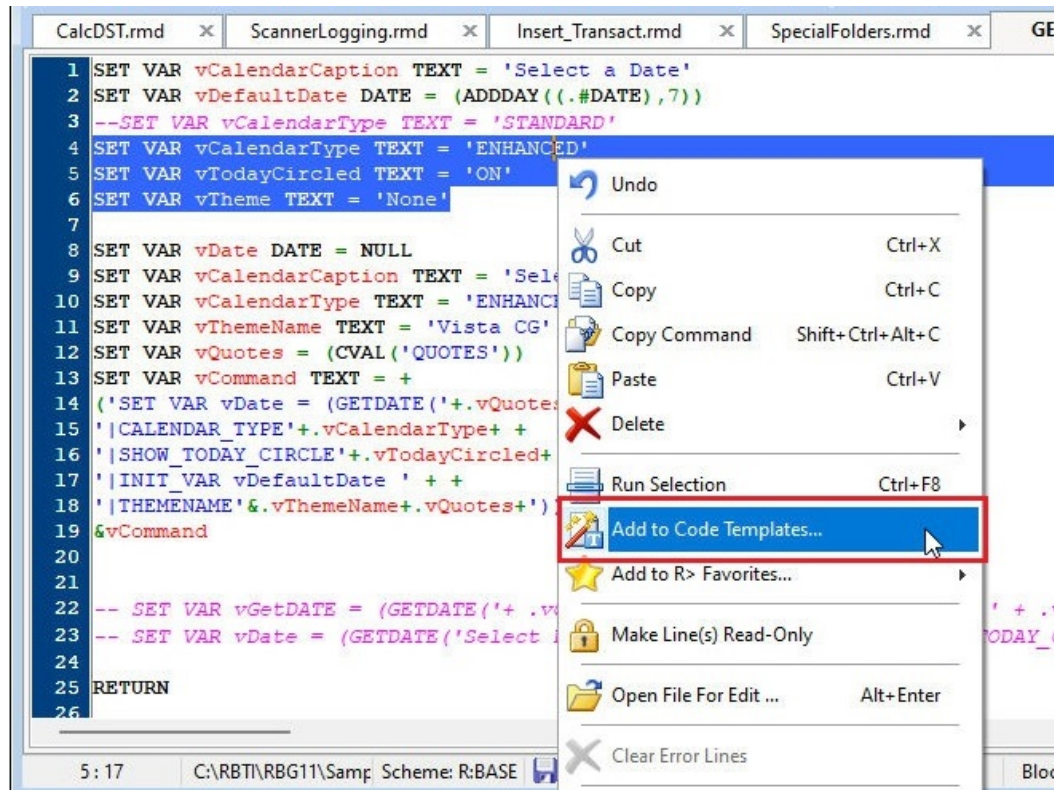
- Added Query Builder/Wizard option to insert the continuation character (+) at the end of each line to easily recycle SQL code



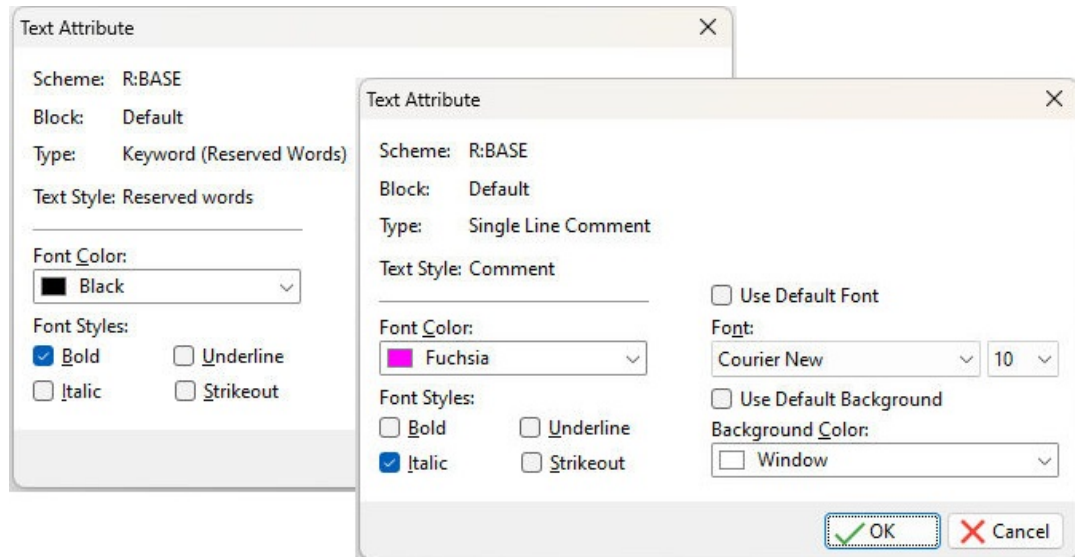
11 R:BASE Editor

The R:BASE Editor provides enhanced functionality for working with R:BASE command files. The updated editor offers these special features:

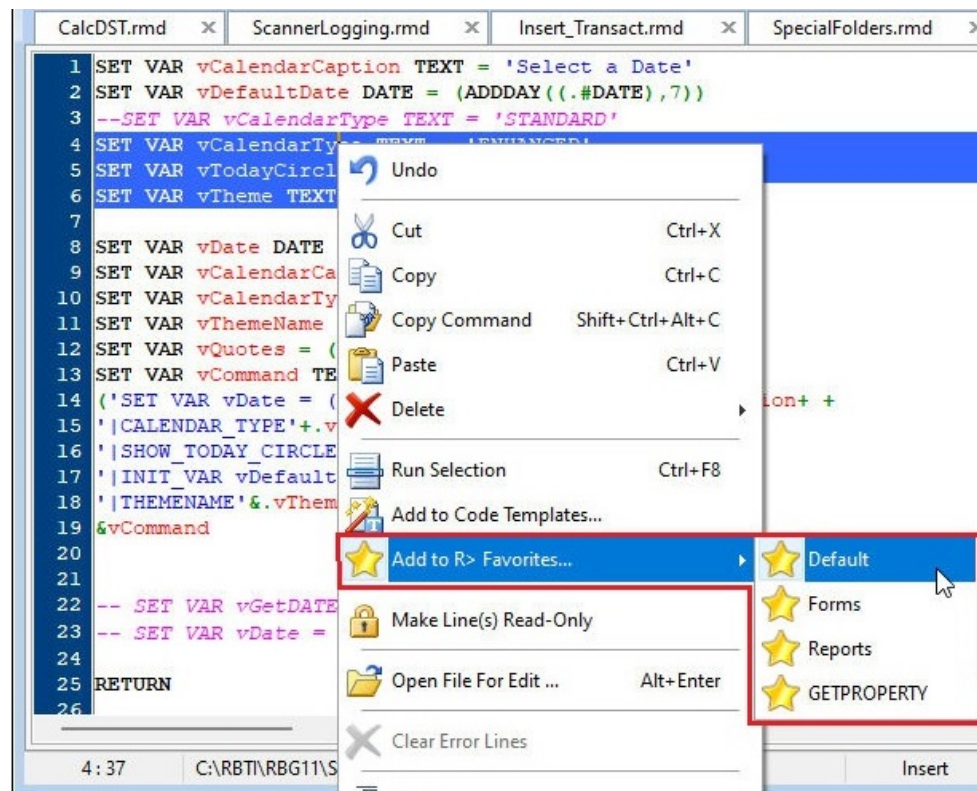
- Added right click "Add to Code Templates" context menu for highlighted text, where a command, or command block, is easily added to the Code Templates utility. The "Code Templates" dialog will appear with the Name and Description fields blank, and the selected code already in the "Code Template" field.



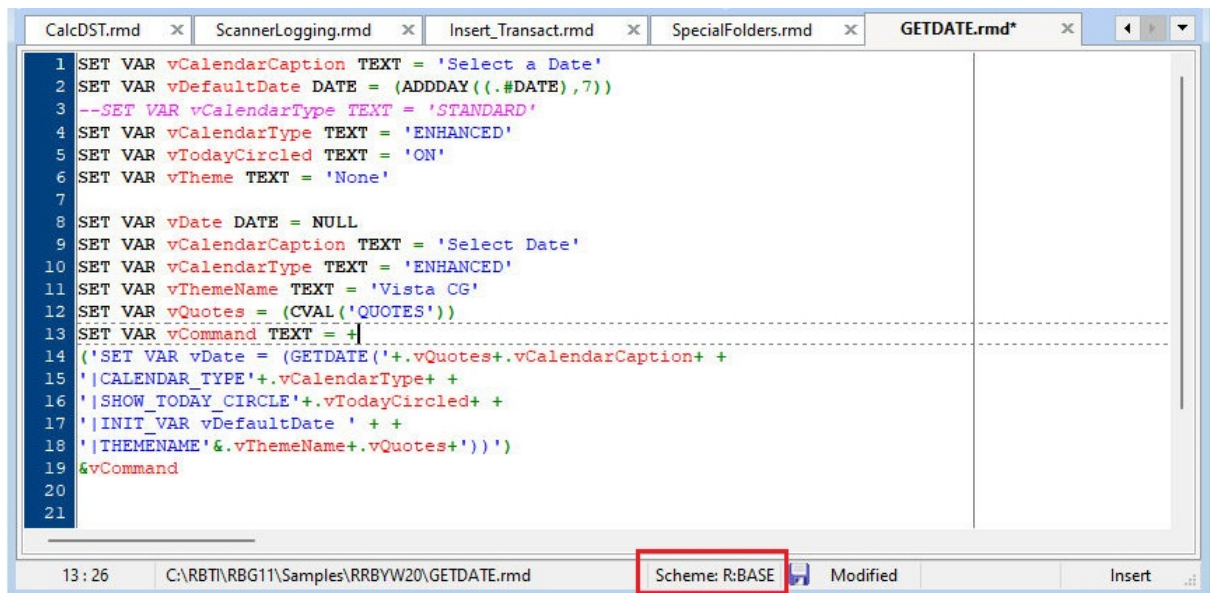
- Ability to review and edit the text attributes for the Syntax Scheme in use (based upon the cursor position), when the [F6] hot key is pressed



- Added right click "Add to R> Favorites" context menu for highlighted text in the R:BASE Editor where a single command is easily added to the R> Prompt Favorite Commands utility. The context menu includes sub-menu options where the added command may be directed to a desired Favorites tab. A confirmation dialog is displayed where continuation characters are removed for multi-line commands, and the syntax may be adjusted.



- Added status bar pane showing the Syntax Scheme (R:BASE, Java, MS-DOS, etc.) in use. If the pane is double clicked, the "Scheme Editor" dialog is opened.

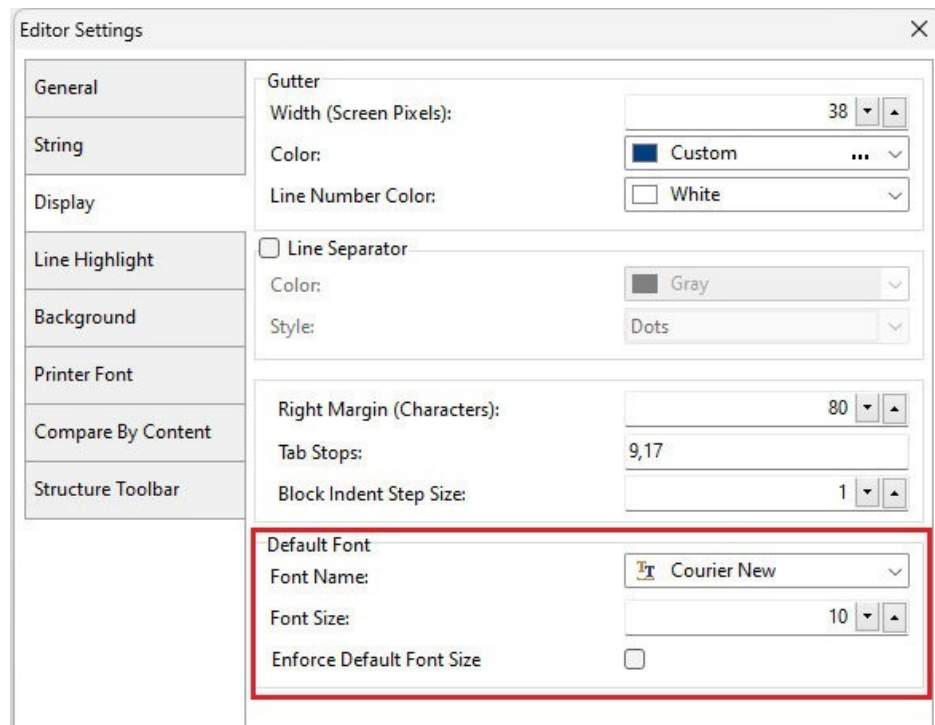


```
1 SET VAR vCalendarCaption TEXT = 'Select a Date'
2 SET VAR vDefaultDate DATE = (ADDDAY((.#DATE),7))
3 --SET VAR vCalendarType TEXT = 'STANDARD'
4 SET VAR vCalendarType TEXT = 'ENHANCED'
5 SET VAR vTodayCircled TEXT = 'ON'
6 SET VAR vTheme TEXT = 'None'
7
8 SET VAR vDate DATE = NULL
9 SET VAR vCalendarCaption TEXT = 'Select Date'
10 SET VAR vCalendarType TEXT = 'ENHANCED'
11 SET VAR vThemeName TEXT = 'Vista CG'
12 SET VAR vQuotes = (CVAL('QUOTES'))
13 SET VAR vCommand TEXT = +
14 ('SET VAR vDate = (GETDATE('+.vQuotes+.vCalendarCaption+ +
15 '|CALENDAR_TYPE'+.vCalendarType+ +
16 '|SHOW TODAY_CIRCLE'+.vTodayCircled+ +
17 '|INIT_VAR vDefaultDate ' + +
18 '|THEMENAME'&.vThemeName+.vQuotes+'))')
19 &vCommand
20
21
```

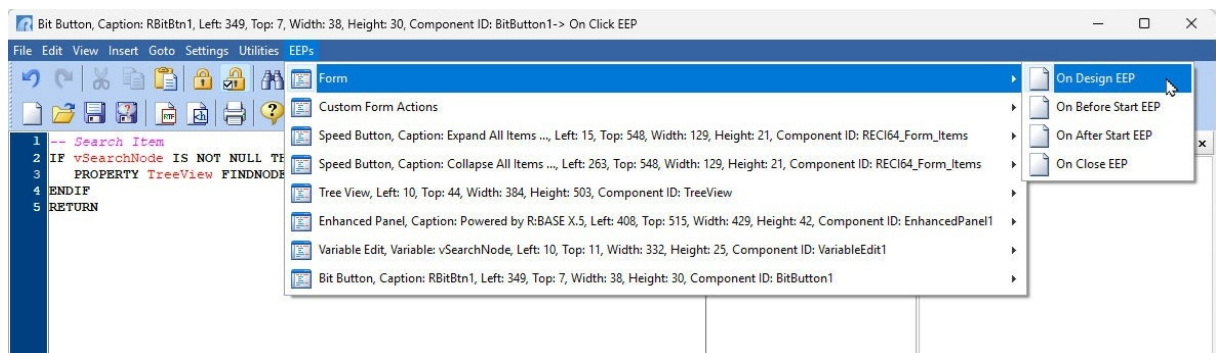
13 : 26 C:\RBT\RBG11\Samples\RRBYW20\GETDATE.rmd **Scheme: R:BASE** Modified Insert

- Enhanced file launch capability within the Compare by Content utility by double clicking the file content

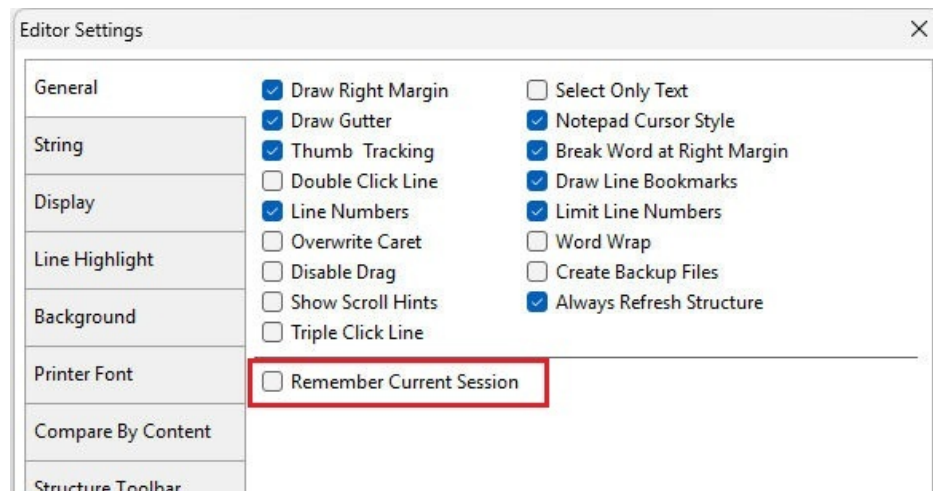
- Added "Default Font" menu to the R:BASE Editor Display settings to assign a font type and size to all word types (comments, strings, numbers, identifiers, keywords)



- Added nesting support for R:BASE Editor, editor for Custom EEPs, stored procedures, and actions (Custom Form Actions, On Before Design Action, etc.), allowing editing/browsing of other EEPs without leaving the current editor session



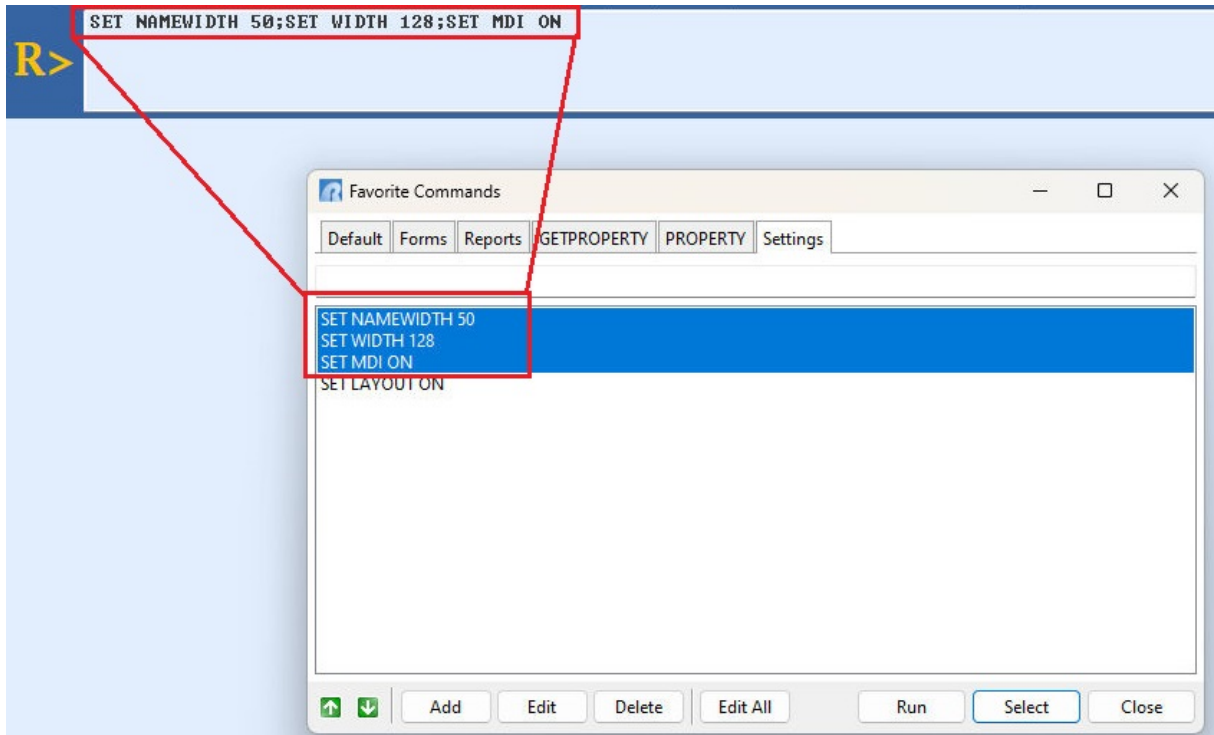
- New ability to save/load an R:BASE Editor Session File (*.rsf) where a list of command files are opened from a prior session. The Save Session and Load Session options are available from File menu bar option.
- Added "Remember Current Session" setting to restore a group of commands that were opened in the prior session



12 R> Prompt

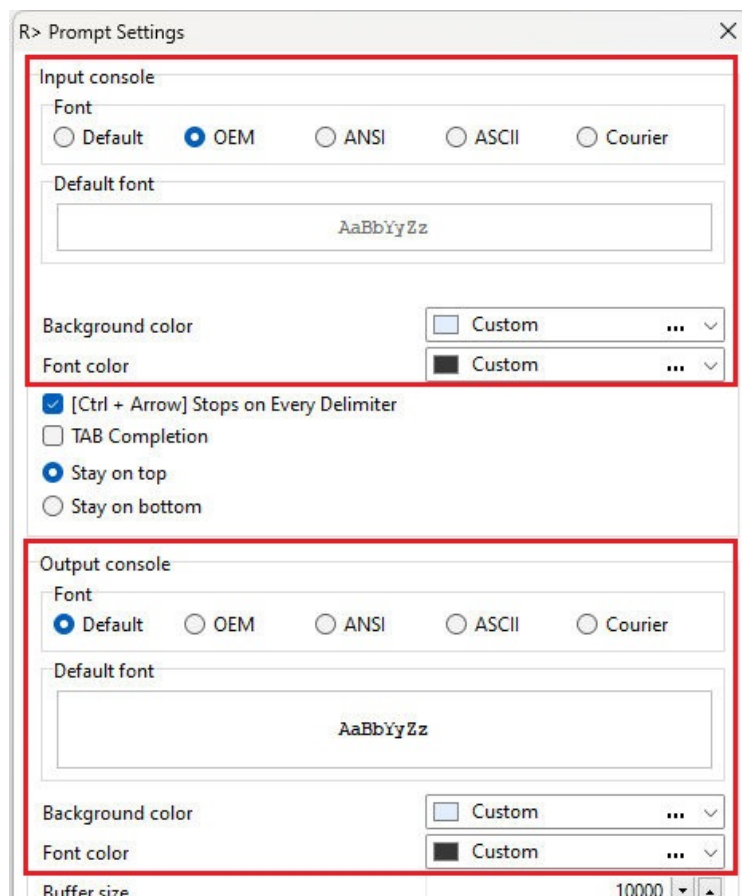
While maintaining the powerful R:BASE 11 R> Prompt, several useful features have been added:

- Enhanced Favorite Commands selection of multiple commands, where the result is concatenated for execution as a group

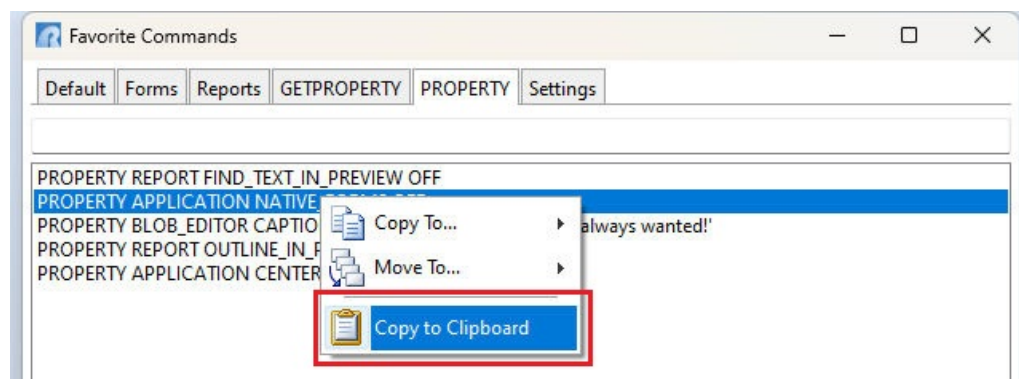


- Added [Ctrl+Page Down] and [Ctrl+Page Up] Command History key combinations to place the focus to the bottom or top of the list

- Enhanced console fonts, where the font name, style, and size are independent for the input console and output console



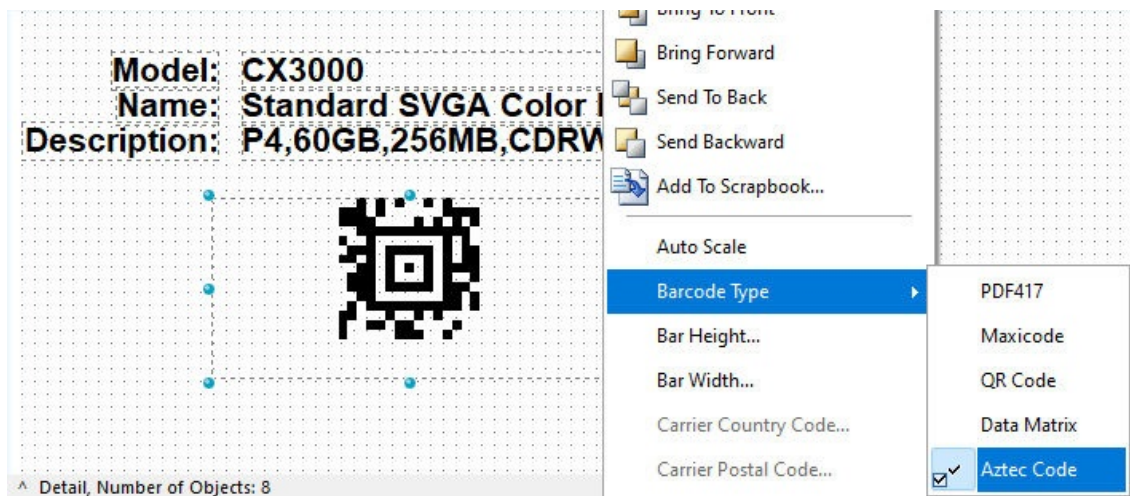
- Enhanced Favorite Commands which interpret a double-click (equivalent to Run button), to efficiently run several commands in sequence
- Added Favorite Commands right click option to copy the selected command to the clipboard



13 Reports and Labels

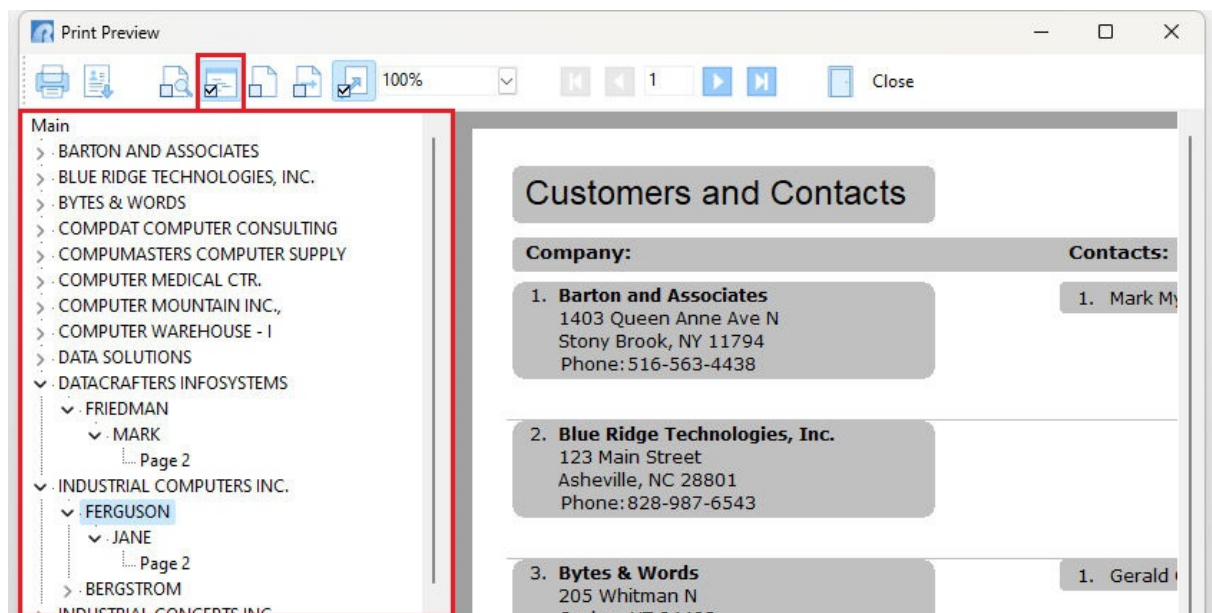
The R:BASE 11 Report and Label Designer is one of the most powerful object oriented report designers available. New features include:

- New Aztec Code 2-Dimensional Barcode type added. Aztec Code is a new 2-Dimensional barcode which uses less space than other matrix barcodes due to its lack of a quiet zone. With a unique finder pattern that resembles an Aztec pyramid in the middle of the symbol, Aztec Code are easily recognizable.

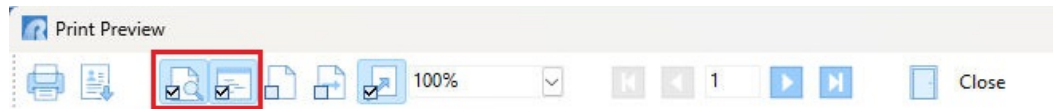


- The Print Preview includes an optional Report Outline for quickly referencing data in large reports. The outline is a helpful extension of the "Find Text" toolbar functionality, where both may be displayed together and are contained within the same panel. The Report Outline may be toggled with the button click or the Ctrl+O key combination. The below PROPERTY command toggles the outline as needed.

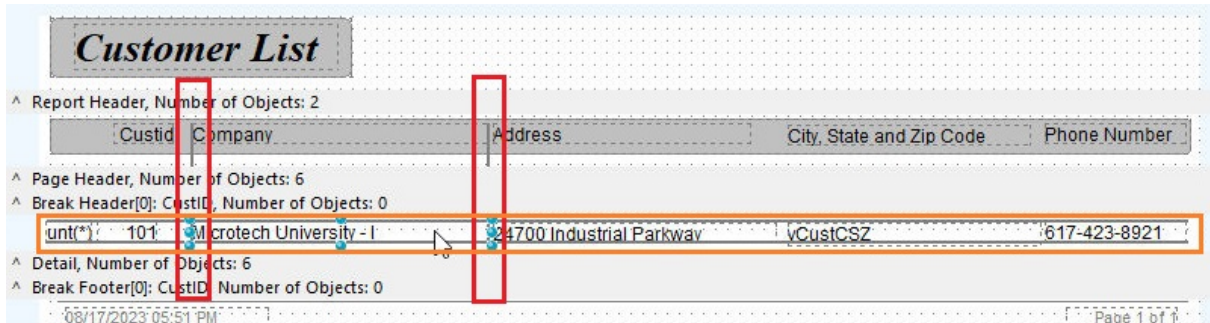
PROPERTY REPORT OUTLINE_IN_PREVIEW 'ON|OFF'



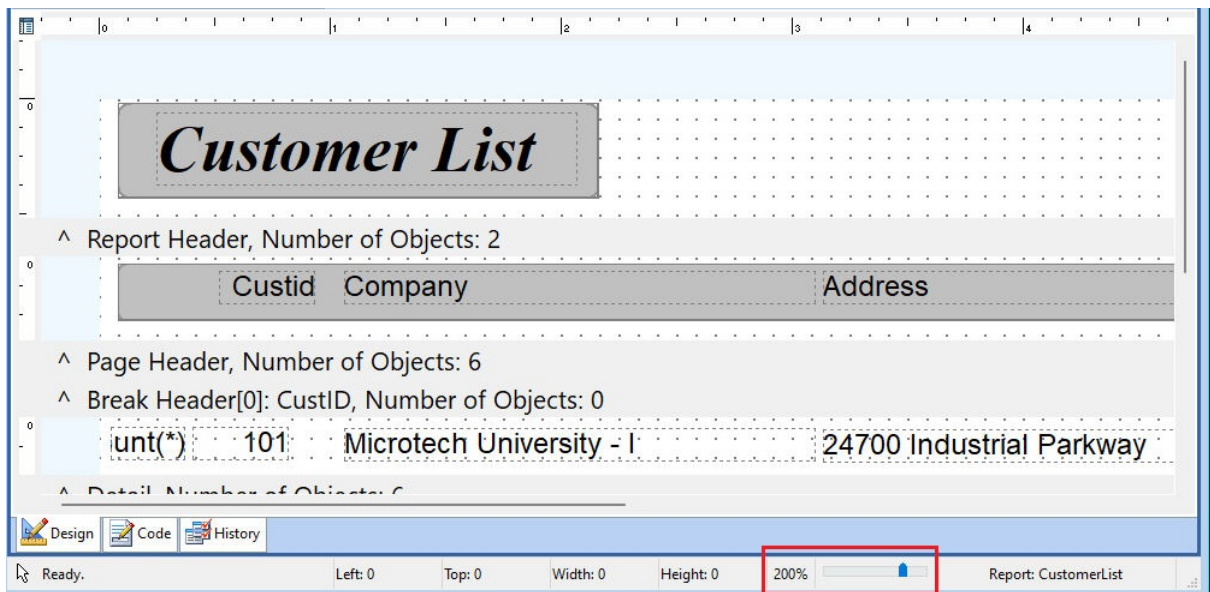
- The Print Preview window includes the "Report Outline" and "Find Text" buttons by default. The buttons may be disabled with the PROPERTY command.



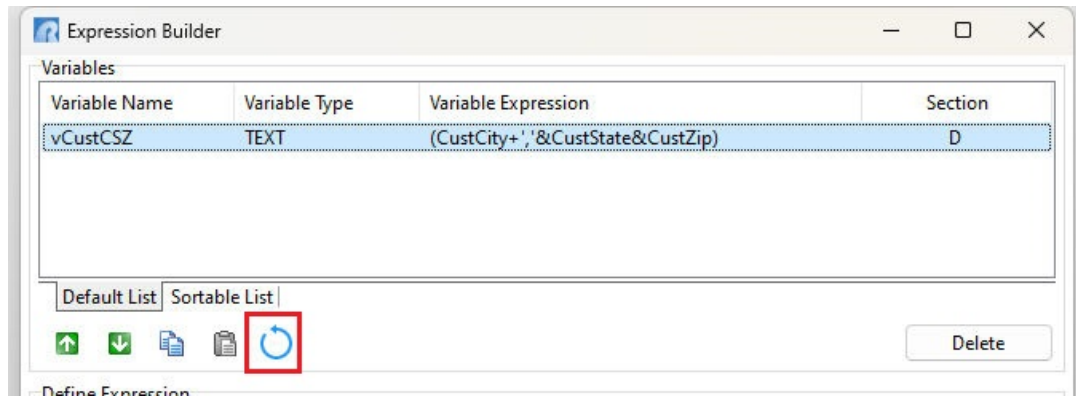
- Added guidelines to assist users when placing/moving report objects



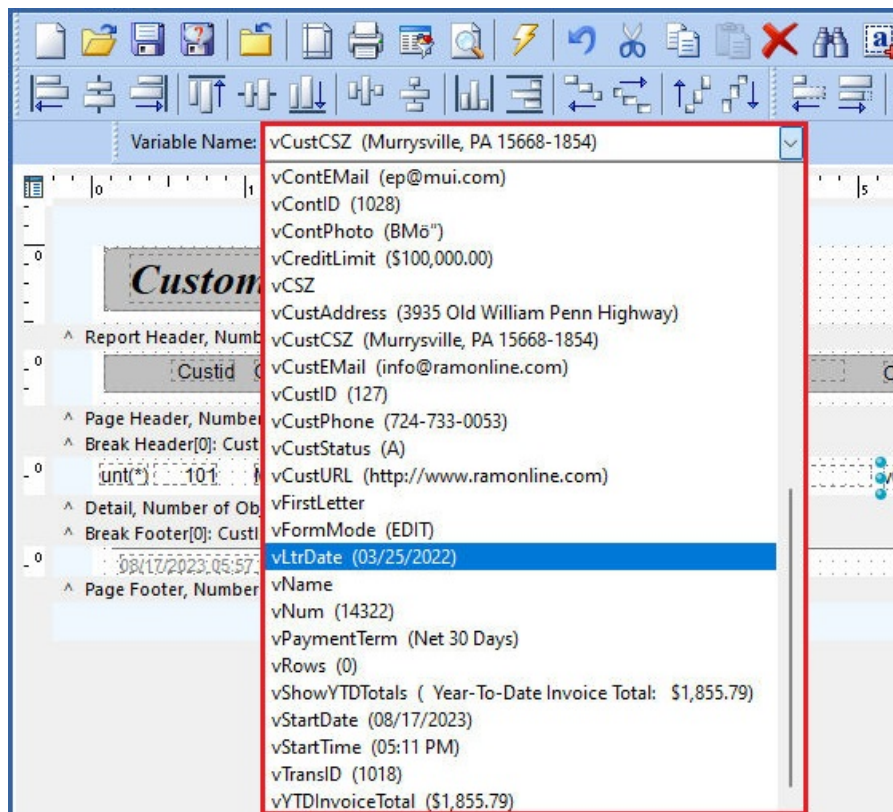
- New zoom capability with a slider object (drag the pointer object across track, or click on the slider track to adjust the zoom percent; 10% per click)



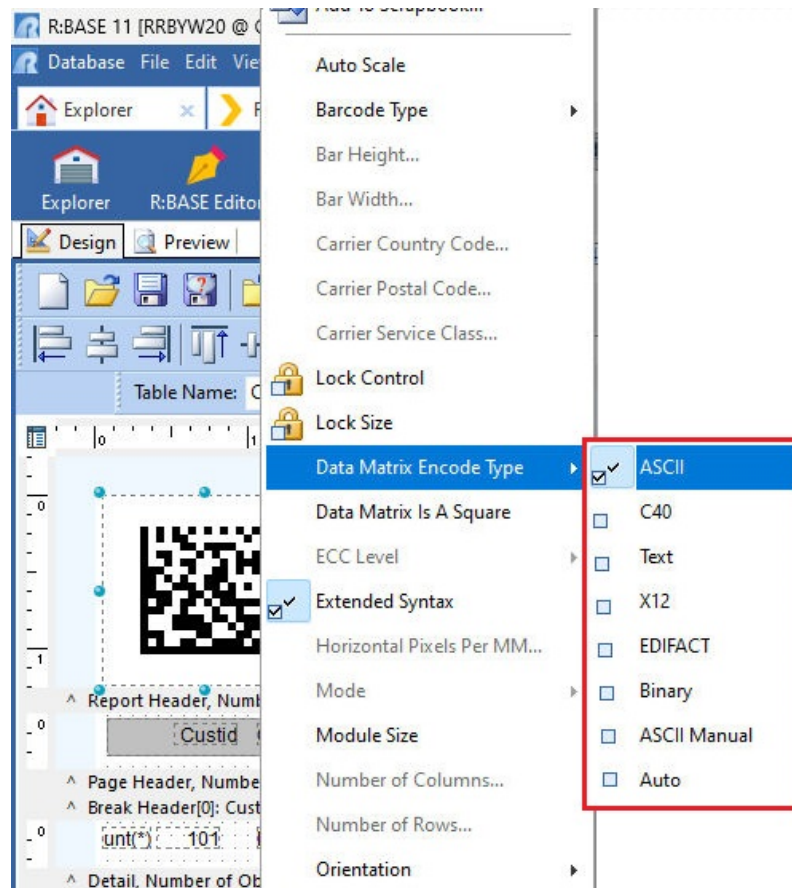
- Added ability to roll back unwanted changes to variable definitions (one variable at a time) in the Expression Builder



- Enhanced Edit toolbar with the display of variable values within the variable list, to help differentiate between variables



- Added encoding types (ASCII, C40, Text, X12, EDIFACT, Binary, ASCII Manual, Auto) for 2D Barcode Data Matrix labels



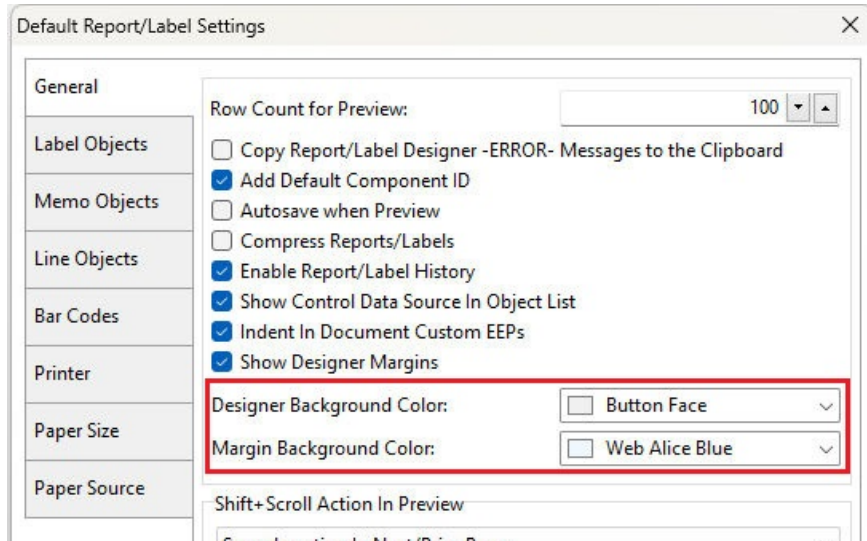
- Enhanced "Border" option in the Format toolbar, providing added functionality with optional sides (left, right, top, bottom), customized color, thickness, and line style of the border lines (from Draw toolbar options)



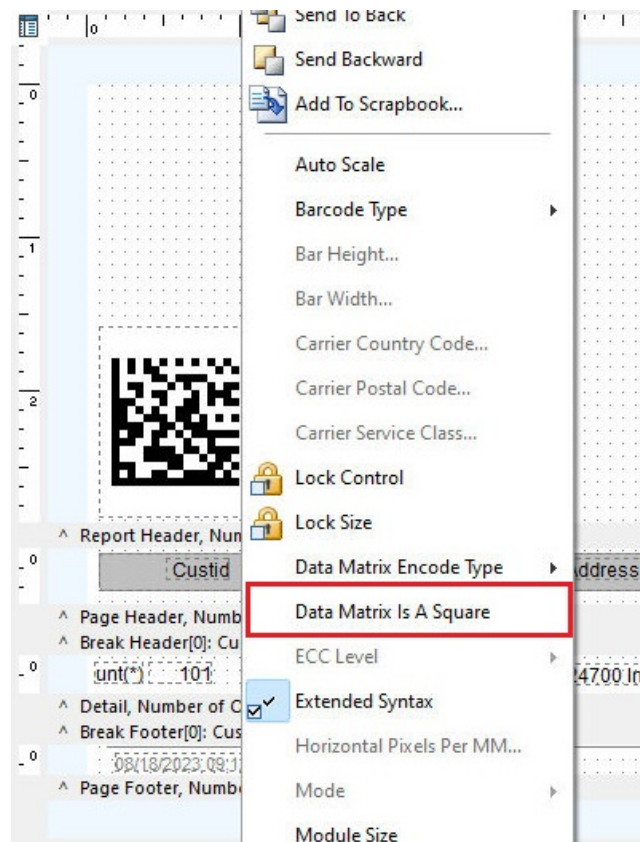
- New "Grow to Height" and "Grow to Width" Options for Size toolbar. The Size toolbar includes new "Grow to Height" and "Grow to Width" option to specify the height and width of the selected object(s) by pixel. When in use, the Report/Label Designer ruler should be set to Screen Pixels for proper review of the assigned values.



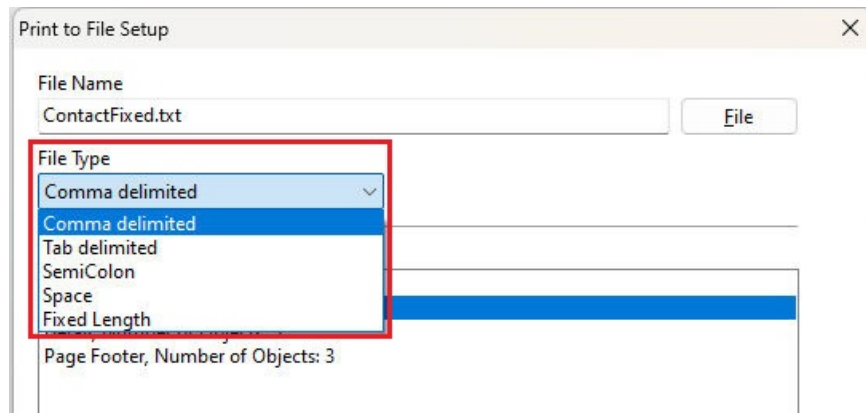
- New display setting to show the Report/Label Designer margins with a custom color. Visible margins for the Report/Label Designer allows users the ability to differentiate between the report/label area and margin area (where objects cannot be placed). The margin display may be turned on/off within the settings. The margin area background color may be customized.



- Added 2D Barcode Data Matrix label settings to specify the size of each Data Matrix module and to force the barcode to be rendered as a square



- Added File Delimiter options for "Print to Text File Setup" utility; SemiColon and Space



- Added "Bring Forward" and "Send Backward" options to the Format toolbar and context menu, to move objects forward or back one layer at a time, if an object is part of multiple layers. The options are similar to Bring to Front and Send to Back, which set a selected object to the foreground or background.



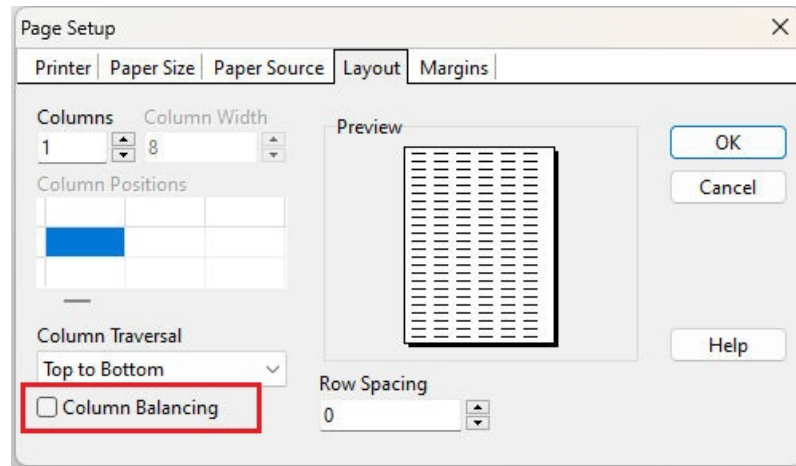
- New Gradient button on the Draw toolbar to define gradient coloring for shape objects



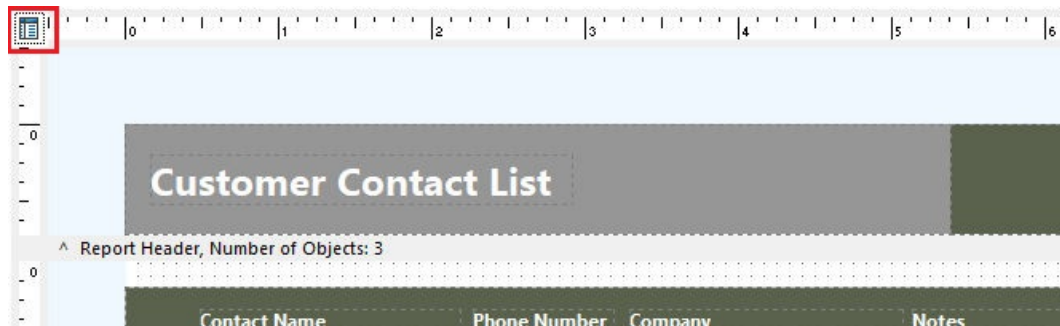
- Additional "align text within borders" options added to the Format toolbar; Align Text Left, Align Text Middle, Align Text Right. The functionality provides text alignment within the confines of the selected objects's borders.



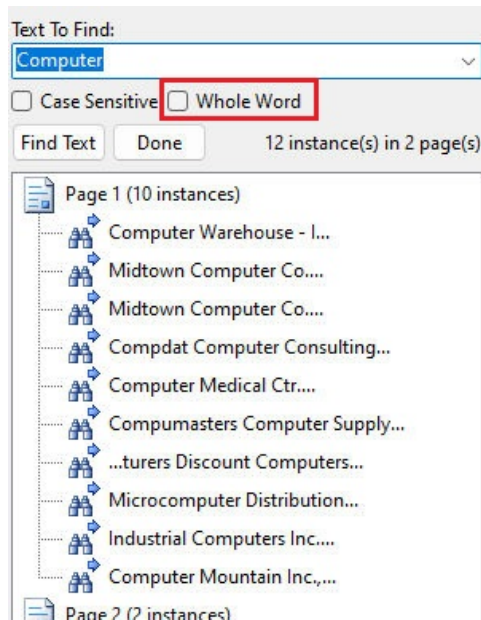
- New "Column Balancing" setting added to the Page Setup > Layout tab, to minimize the number of rows displayed on the report



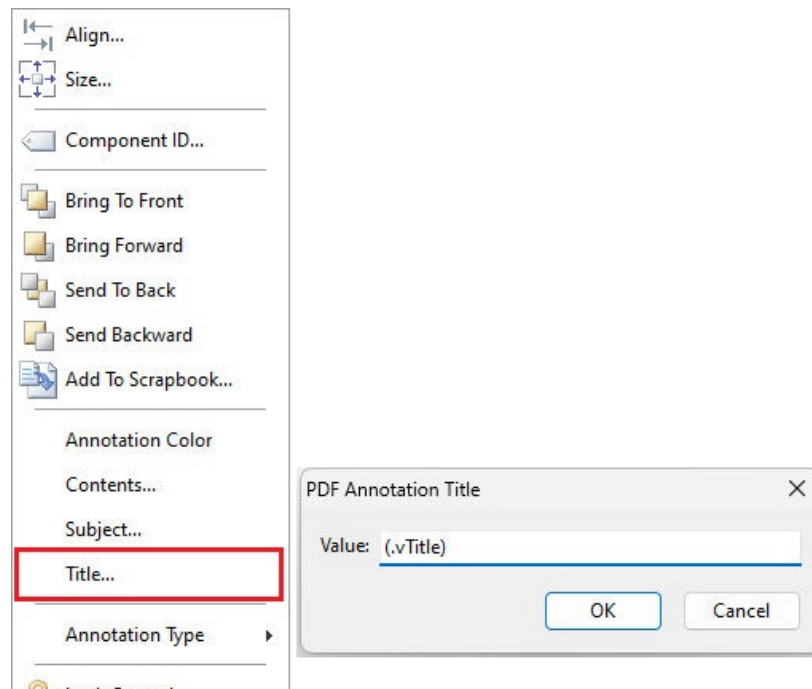
- Enhanced navigation in the Print Preview with zoom and scrolling with the mouse wheel; [Ctrl]+Wheel = Zoom in/out, [Ctrl]+[Shift]+Wheel = Scroll left/right within page
- Added Clear Selection button in the top left corner of the rulers to deselect any object, which is helpful on reports where many shapes and layers exist



- Enhanced Find in Print Preview search with a "Whole Word" option to locate text that is contained within a whole word

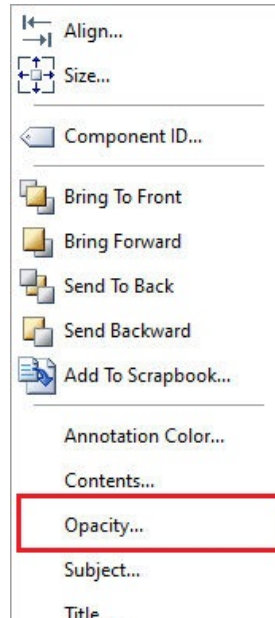


- Enhanced PDF Annotation object to accept a variable in (.VariableName) format for the Title and Contents properties

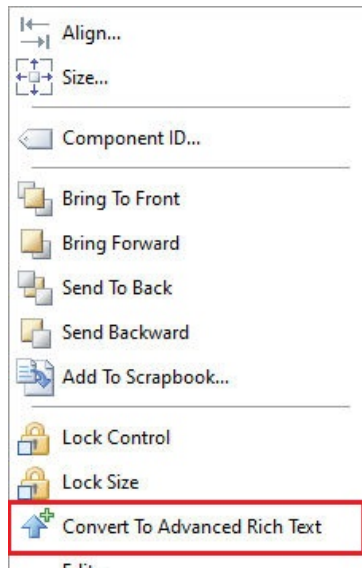


- Added annotation types (Check, Checkmark, Circle, Cross, Cross Hairs, Right Arrow, Right Pointer, Star, Up Arrow, Up Left Arrow) to the PDF Annotation object

- New Opacity setting for PDF Annotation labels to specify the amount of visibility for the annotation. An opacity of 0 would allow for text or an image to be placed behind the PDF Annotation, to utilize a custom annotation object.



- Added right click context menu options to easily convert rich text objects to "advanced" rich text objects (Advanced Rich Text, Advanced DB Rich Text, Advanced Variable Rich Text)



- New Prevent Orphans breakpoint setting which specifies whether group headers/footers can print alone at the bottom/top of the page

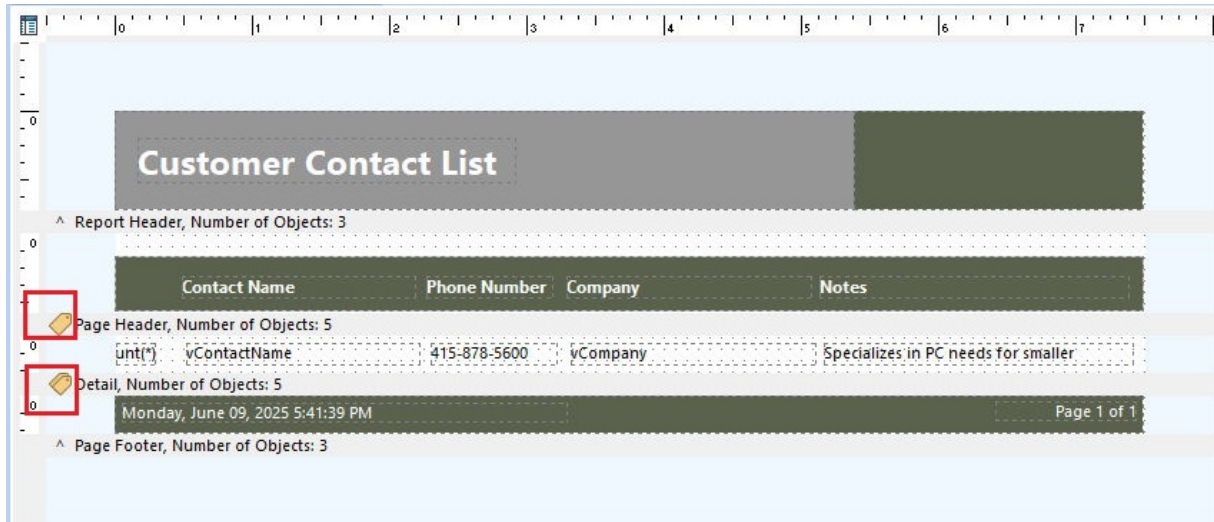
The screenshot shows the 'Breaks' dialog box. At the top, there's a 'Breaks' dropdown menu set to 'Transid' and an 'Add' button. Below this is a list of breaks: 'Break[0]:ProdAlias.Transid' (selected), 'Break[1]:ProdAlias.Custid', 'Break[2]:ProdAlias.Empid', and 'Break[3]:ProdAlias.Detailnum'. To the right of the list are 'Insert', 'Delete', and 'Reset Vars' buttons. Below the list, there are three sections: 'Break On' with radio buttons for 'Data Field' (selected), 'Custom Field', and 'Variable'; 'Sort Direction' with radio buttons for 'Ascending' (selected) and 'Descending'; and 'On Page Break' with a 'Reset Vars' button. Below these is the 'On Break Change' section with checkboxes for 'Start new page' (checked), 'Reset page number' (checked), 'Start on odd page' (unchecked), 'Don't print on single row Detail' (unchecked), and 'Create new file' (unchecked). There's also a 'New page when less than' field with the value '0'. At the bottom, there are two checkboxes: 'Keep break together' (unchecked) and 'Prevent orphans' (unchecked), which is highlighted with a red rectangle.

- Added image support for the Advanced Rich Text control's Mail Merge feature. With the enhancement, VARBIT fields/variables are automatically interpreted as images. For non-VARBIT fields/variables, the name must be appended with the 'IMAGEFILE' display format. The 'IMAGEFILE' display format is applicable to values containing the path of the image file.
- Added support for the classic report/label Print Preview, where output is located at the top left corner of the screen

PROPERTY REPORT CLASSIC_100PCT_PREVIEW ON

- Added "Copy Number" and "Copy Number Description" options to the System Variable control, which appear on the first and subsequent copies of the output:
 - Copy Number - current copy number (when printing multiple copies to the printer)
 - Copy Number Description - textual summary of the current copy number ("Copy 1")

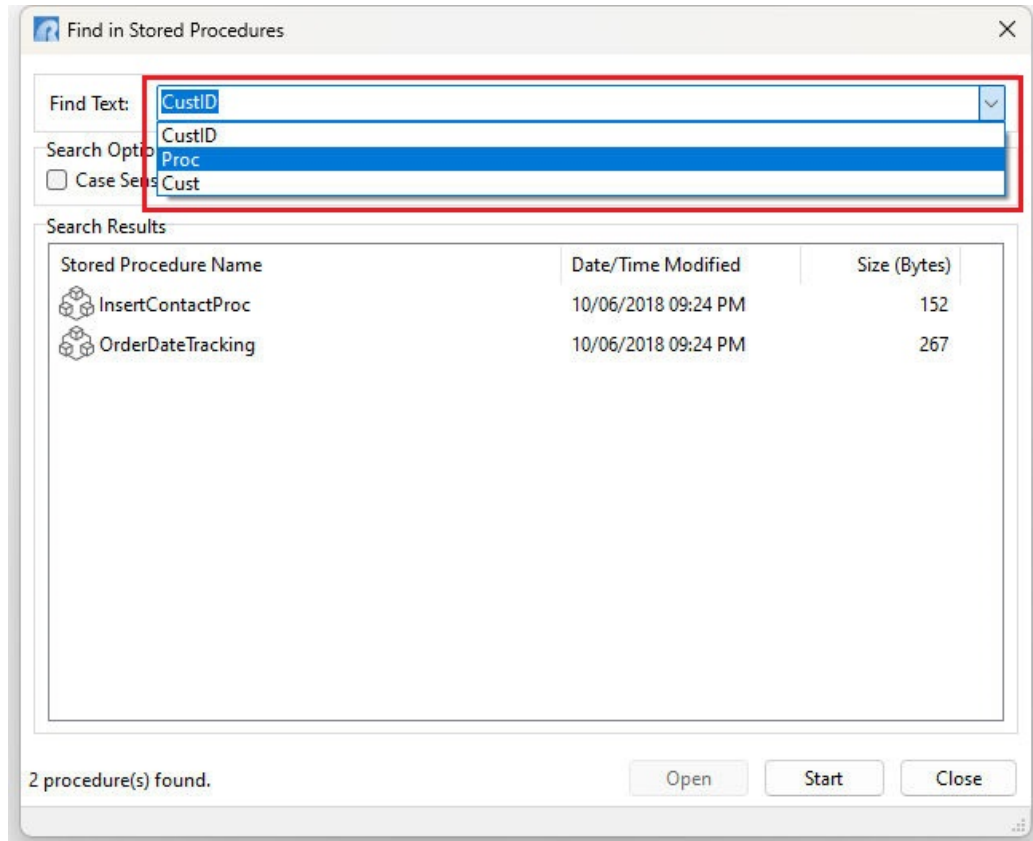
- Added notification icon to report/label bands to inform the user that code exists in the band. If one of the two available band EEPs (Before/After Generate Custom EEP) have code, then a single tag icon is shown. If both EEPs have code, then an icon with 2 tags is displayed.



14 Stored Procedures

The R:BASE 11 has been updated to make Stored Procedure definition easier. The newest features include:

- Added history for stored procedure searches



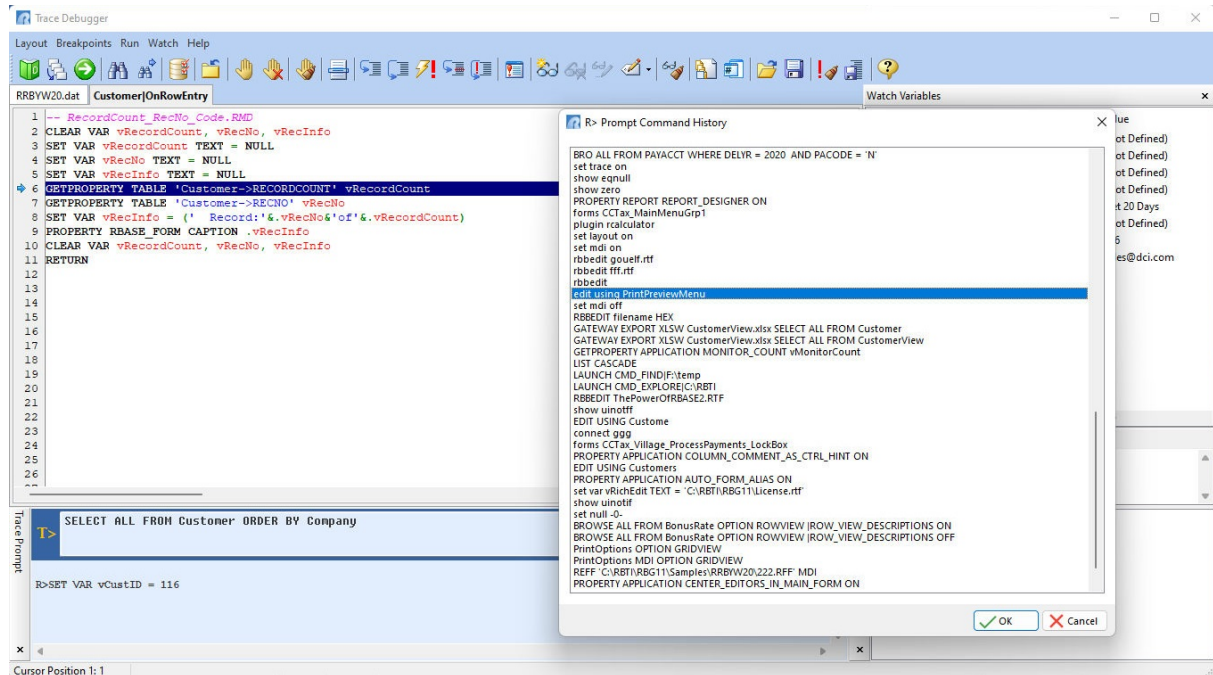
- Enhanced drop trigger flexibility, to optionally drop a before trigger, or after trigger, separately

```
ALTER TABLE tblname DROP TRIGGER [BEFORE/AFTER] INSERT/UPDATE/DELETE
```

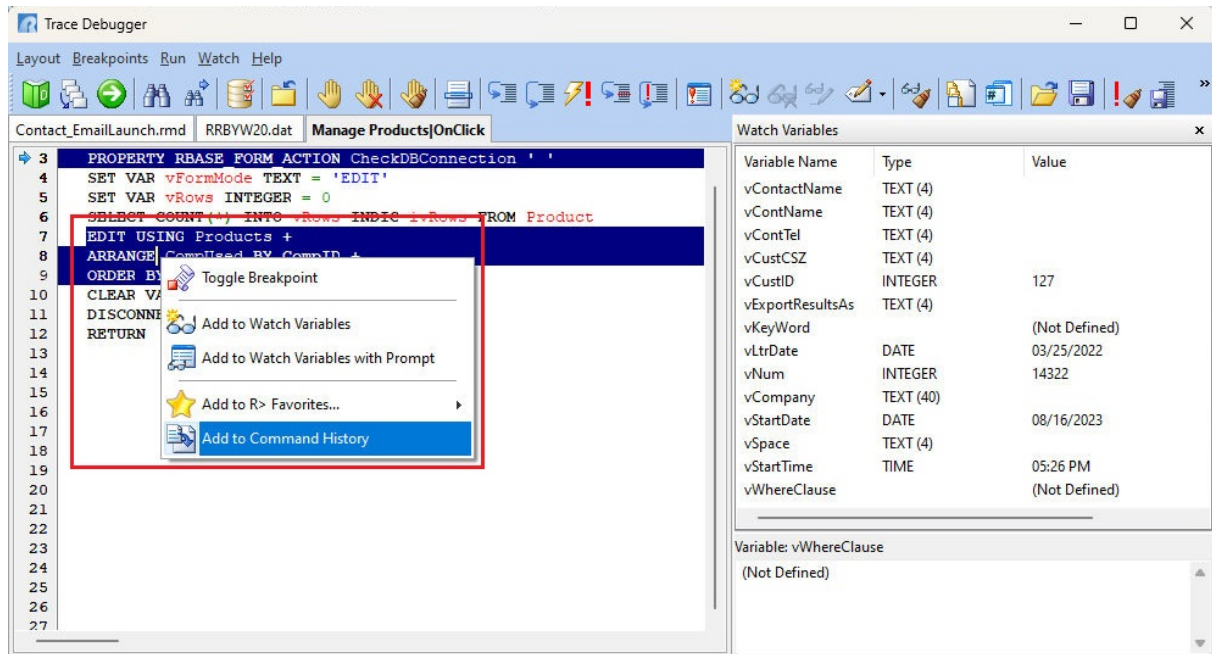
15 Trace Debugger

The Trace Debugger allows developers to debug applications and commands files to find programming errors and problems. The debugger has been updated with the following new features:

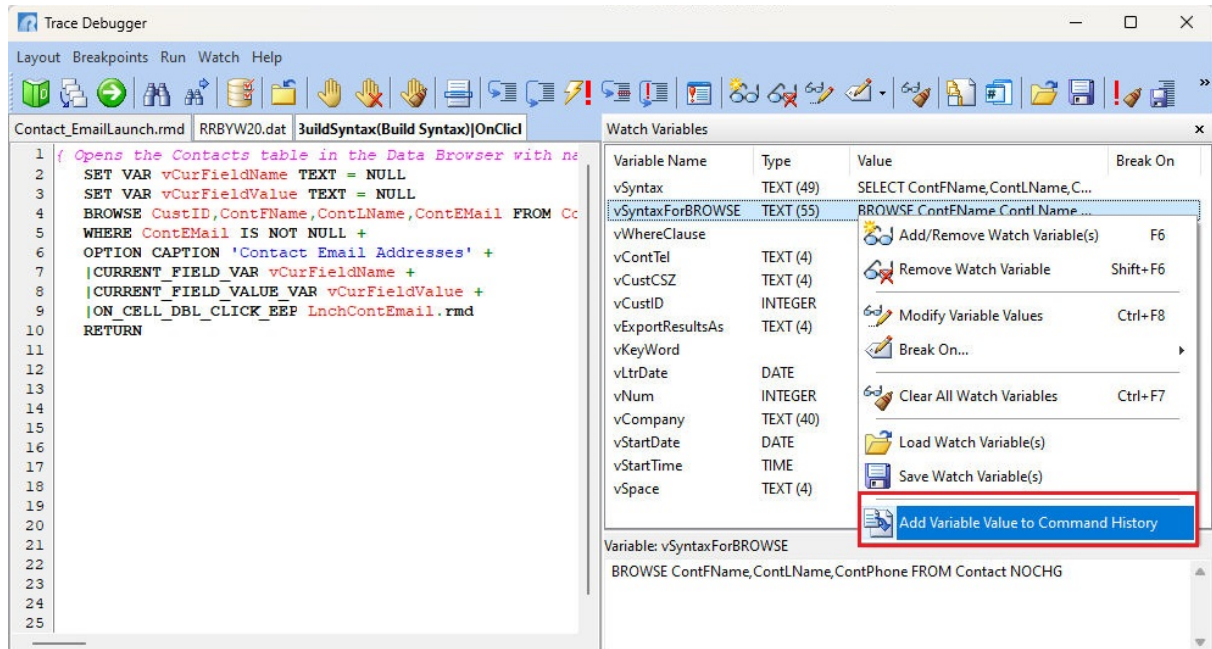
- Trace Prompt toolbar into which any R:BASE command may be manually entered and executed



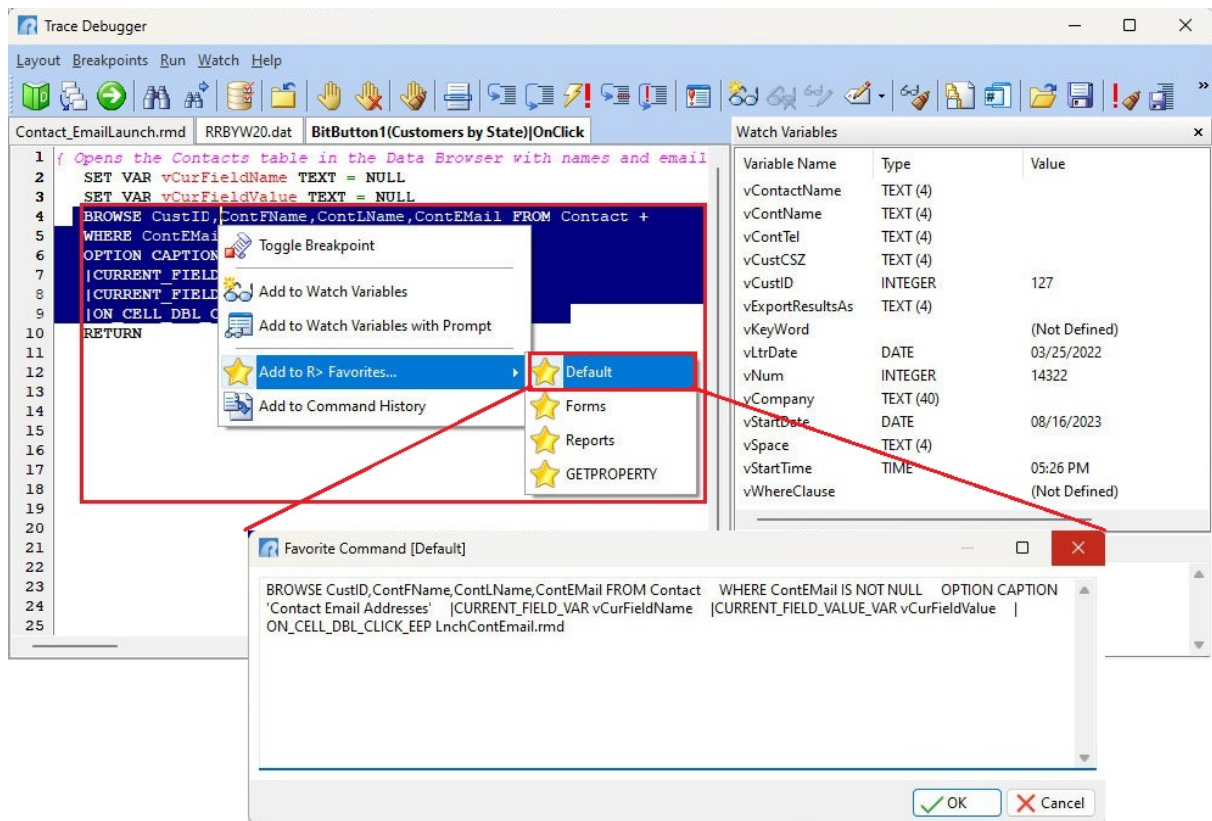
- Added right click menu option for when running a command file/EEP in the debugger, to insert a highlighted command into the R> Prompt Command History



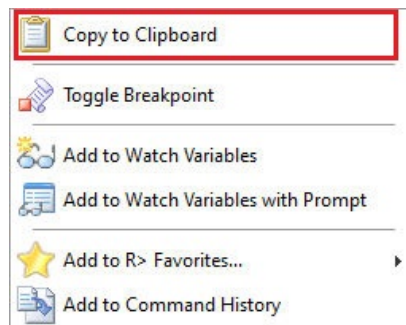
- New "Add Variable Value to Command History" menu option within the Watch Variable panel of the debugger to add dynamically constructed and complex ampersand-variable commands to the R> Prompt Command History. The functionality makes the complex command more accessible for re-execution (possibly with manual modifications)



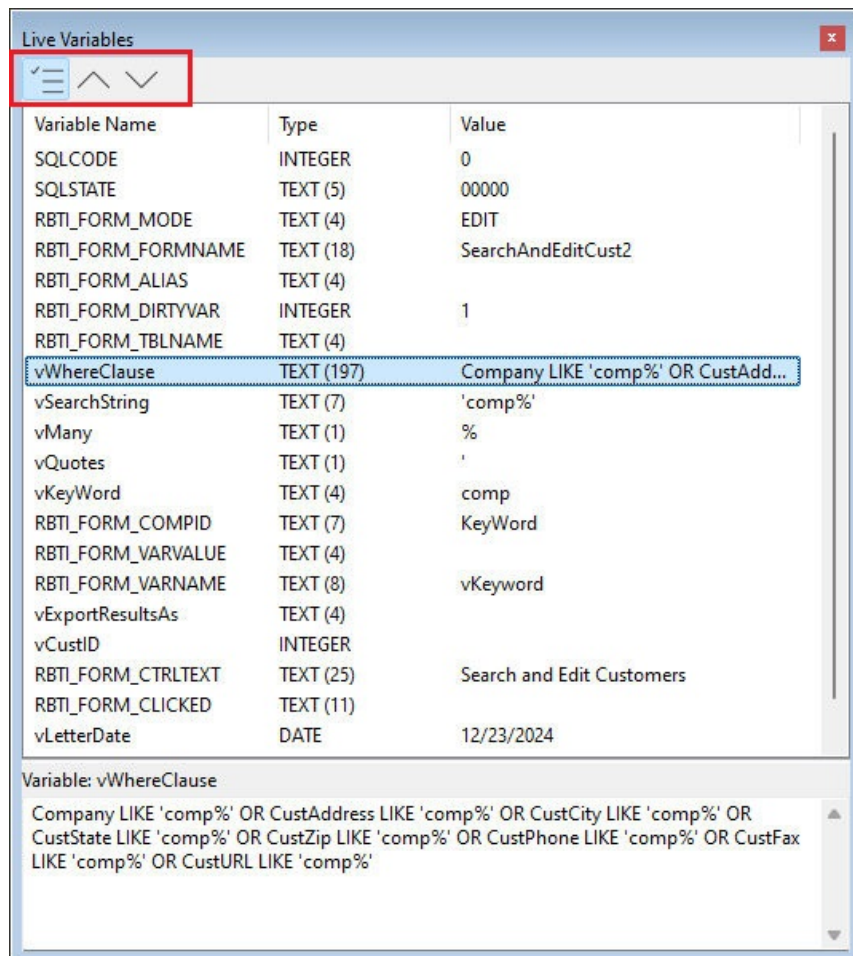
- Added right click menu option for when running a command file/EEP in the debugger, to insert a highlighted command into the R> Prompt Favorites



- Added right click menu option to copy highlighted text while debugging code



- Enhanced Live Variable list sorting with ability to toggle the dynamic list in ascending, descending, and most-recent order



16 User Privileges

The R:BASE 11 User Privileges interface has been enhanced to make supplying user permissions easier. The newest features include:

- Added ability to allow CREATE privileges on TEMPORARY TABLES to be separate from CREATE privileges on permanent tables

