# R:Compiler for R:BASE 11



# Help Manual

The innovative solution for distributing your R:BASE 11 applications!



# **R:Compiler for R:BASE 11**

**Help Manual** 

by R:BASE Technologies, Inc.

Welcome to R:Compiler for R:BASE 11!

R:Compiler for R:BASE is a program that converts R:BASE applications into stand-alone executable files. The executable file is created from a startup file, which can be an application file (.rba), an external form file (.rff), or a command file. The R:Compiler for R:BASE functionality eliminates the need for the R:BASE program on client work stations, and allows for easier custom application distribution.

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# 1 Introduction

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# 1.1 Introduction to R:Compiler for R:BASE

R:Compiler for R:BASE is a program that converts R:BASE applications into stand-alone executable files. The executable file is created from a startup file, which can be an application file (.rba), an external form file (.rff), or a command file. The R:Compiler for R:BASE functionality eliminates the need for the R:BASE program on client workstations, and allows for easier custom application distribution.

Options for the distributed application include support to change the icon of the executable file and to include version information specific to a compiled executable. Developers can also create an evaluation version of an application, which will expire after a defined date.

Database resources can be added to compiled executable projects. Database resources can include R:BASE forms, reports, labels, and external form files. By storing these objects in the compiled executable, and storing the executable locally on a workstation, the network speed for the application will improve due to the decreased amount of data required to be transferred when a form, report, or label is opened. Adding an external form to the compiled executable resources will further decrease the amount of files need for distributing the custom application.

File resources can be added to compiled executable projects as well. File resources can include R:BASE Plugins included with Runtime License purchases, the R:BASE Engine DLL file, R:BASE command files that can be used with the RUN command, themes, R:Charts chart files, R:BASE Gateway Import/Export specification files, and R:Mail Editor Template files. Themes that can be added to the compiled executables include any theme within the R:BASE Theme Library (RBThemes11.dll) and any individual theme files with one of the following file extensions:

- msstyles
- theme
- uskn
- kskn
- xskn
- mskn

As external resource files change over time, an option to update the resource is available for external form files, plugins, command files, chart files, specification files, and template files.

Several settings for compiled executables can be enabled and disabled including:

- embedding the R:BASE engine DLL within the executable
- allowing only one instance of the compiled executable to be launched
- compress executables, with varying levels
- partial compression for code, leaving resources uncompressed
- theme support, to optionally make native executables

A customized load window can to be displayed while application is launching. Options include a multi-line message with background color and font settings and custom image and animation support. A preview is available to experiment with different load windows.

R:Compiler for R:BASE also has the ability to specify an external text editor for command files, and R:BASE as the editor for external form files and application files. This allows developers to launch the external editor from R:Compiler to make modifications on-the-fly!

When including custom fonts within applications, R:Compiler can include font files (.tff) as part of the Misc. Files resources. When the compiled application is executed, it will install the font files if not already installed.

R:Compiler allows developers to save application projects (.rcp). The project files can be used to make changes to existing projects, save files as other projects, and easily recompile applications. A batch compile can also be performed to rebuild all projects at once.

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First Edition

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#### **30 DAY LIMITED COMPLIMENTARY TECHNICAL SUPPORT**

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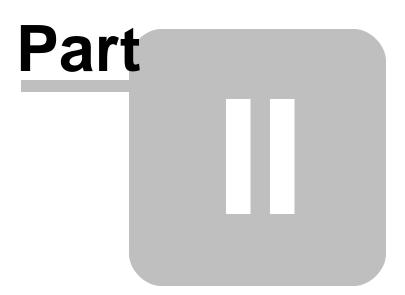
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- 2. To have operating system, workstations, and local network installed and functional. R:BASE Technologies will NOT be responsible for resolving issues not pertaining to the software product.
- 3. Our support staff deals with advanced issues, therefore the person contacting R:BASE Technologies for assistance should be the system administrator or have other R:BASE/SQL experience and be able to understand and implement the advice given.
- 4. To have the database, application, and command files being reviewed, safely backed-up before attempting assistance. R:BASE Technologies will NOT be held responsible for lost data or corruption as a result of advice given.

#### **B. R:BASE TECHNOLOGIES, INC. RESPONSIBILITIES.**

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- 2. To provide a reasonable solution for any solvable issue. Not all issues may be solved, and therefore we will acknowledge the existence of known issues, or bugs, which we are presently aware of, that have no reasonable work-around.

R:BASE Technologies reserves the right to limit the amount of support time allotted to a maximum of 2 HOURS during the 30-Day Complimentary Technical Support period. We also reserve the right to limit the quantity of calls from a particular licensee to 30 MINUTES in a single day. Issues are dealt with on a case-by-case basis, and are handled at the discretion of the support agent assigned to the case. Complimentary Support is limited to INSTALLATION and ELEMENTARY CONVERSION related issues ONLY. Our support hours are Monday through Friday, from 10:00 AM to 6:00 PM (EST).

For application, design, or advanced conversion assistance, R:BASE Technologies offers Technical Support Plans of various types to meet your needs. Please visit the Support page at <a href="https://www.rbase.com/support">https://www.rbase.com/support</a> for details and pricing.



# 2 Installation

## 2.1 System Requirements

The following system specifications are recommended for the optimal use of R:BASE and R:BASE-related software.

#### **Workstation Hardware**

- 2-Core 2GHz+ CPU
- 2 GB of available RAM (4 GB recommended)
- 2 GB of available hard disk space
- 1024x768 or higher resolution video adapter and display
- Standard mouse or compatible pointing device
- Standard keyboard

#### Server Hardware

- 2-Core 2GHz+ CPU
- 6 GB of available RAM (8 GB recommended)

#### **Operating System**

- Microsoft Windows 11 (Professional)
- Microsoft Windows 10 (Professional)
- Microsoft Windows Server 2022
- Microsoft Windows Server 2019
- Microsoft Windows Server 2016
- Microsoft Windows Server 2012, 2012 R2

#### Network

- Ethernet infrastructure (Gigabyte recommended)
- Internet connection recommended, but not required, for license activation, software updates, and support
- Anti-virus programs should exclude the R:BASE program, and any add-on product, executable and database files

# 2.2 Things You Will Need

License Key

Before launching the installer, it is recommended that you have your 32-character License Key readily available. The License Key is provided in a document, with the email message, when the software was originally purchased. If you have lost or misplaced your License Key, please contact our Support Staff by email at <a href="mailto:support@rbase.com">support@rbase.com</a>.

• Internet Access

The computer where the software will be launched should have access to the Internet for activation. The Internet access is used to visit the R:BASE Technologies Web site to provide your required Activation Key.

In instances where the software will be installed on a computer that is not connected to the Internet, you must then contact R:BASE Technologies to provide information displayed on the computer screen. Please contact our Product Activation Staff by email at <u>activationkey@rbase.com</u>. The Registration Number must be provided. The Registration Number is displayed on the invoice/order slip, and within the email, when the software was originally purchased.

# 2.3 Software Installation

The installation of R:Compiler for R:BASE 11 is fully automated and does not require user intervention for the initial configuration.

Run the installer ".exe", provided by download, while physically sitting at the workstation to begin the installation process.

#### **Installation Directory**

C:\RBTI\RBG11\_Compiler

#### **Files Installed**

RCompiler11.exe RBENGINE11.dll RBThemes11.dll TabPrint.dll WebView2Loader.dll RBENGINE11.CFG RCompiler11.pdf RCompiler11.chm RCompiler11.SizeCfg License.rtf ReadMe.txt

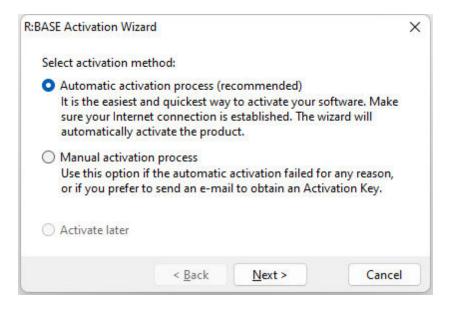
## 2.4 Activation

When starting R:Compiler for R:BASE for Windows for the first time, you will be prompted for your product License Key, followed by the activation process.

After launching R:BASE, you will be prompted to enter your 32-character License Key, which is provided with your product and is located on a label above the installation CD on the inside of the protective product case.

License Informat	tion			×
Enter License	Key:			
Paste			V 0k	X Cancel

After entering the License Key, you will see a dialog to prompt for your activation method. The software can be activated automatically over the Internet, or manually by retrieving an Activation Key from R:BASE Technologies by email or over the phone. If you select "Later", you will be reminded each time R:BASE starts to activate your copy.



When activating the software manually, you select the e-mail link to launch your email client and send a pre-formatted message to R:BASE Technologies that will contain your License Key and the displayed Computer ID. You will need to provide your R:BASE Registration Number and Computer ID.

R:BASE Activation Wiza	rd	>
	vation Key, please select the e-m ng Computer ID, which is unique	
Com	puter ID: 944C4	593
E-mail: activationke	v@rbase.com	
Activation Key:		Paste
	< Back Next >	Cancel

At any time, you can review your product information by starting R:Compiler for R:BASE and clicking on the "Activation" button. Your Registration Number is displayed on the window. You can also enter additional License Keys for add-on products.

Product Name	Registration Number	Number of Seats
R:BASE 11	1100007	5
R:BASE Plugin Power Pack 11	1100007	5
R:PDF Works 11	1100007	5
R:Spell Checker 11	1100007	5
	Activation Key:	

Please be advised that if you are activating multiple workstations, it is highly recommended that you keep records of the computer name, Computer ID and Activation Key for future reference. Access to this information will prove convenient in the event of a hardware failure or license transfer when uninstalling R:BASE.

Please see: <u>Uninstall/Reinstall</u>

# 2.5 Uninstall

If a computer is no longer using R:Compiler for R:BASE, through license transfer or hardware failure, the Activation Key that was used on that computer must be submitted to R:BASE Technologies so we can then remove the Activation Key from our log. We will disable the Key, which will then free up that used activation. Once a key is reported to us as no longer in use and deactivated, it can no longer be used on that computer.

Product deactivation can be performed automatically from within R:Compiler for R:BASE. To review your product information select "Help" > "Product Activation" from the Menu Bar. Here, the License Key and Activation Key for a selected product is available for review.

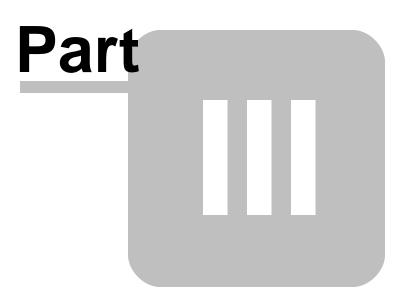
Product Name	Registration Number	Number of Seats	
R:BASE 11	1100007	5 5 5	
R:BASE Plugin Power Pack 11	1100007		
R:PDF Works 11	1100007		
R:Spell Checker 11	1100007	5	
		-	

If the License Key for your product is not readily available for the license transfer, select the "Copy License Key" button to send your License Key to the clipboard.

To deactivate a listed product, select it and press the "Deactivate" button. The below confirmation dialog will appear. After selecting "Yes", the product will be removed from the list.

Confirm	1	×
0	Product deactivation should ONLY be performed if you wish to permanently remove the software, and it will not be re-installed on this specific computer.	
	Please be aware that you will no longer be able to run this software on this computer.	
	This action will require internet access.	
	Do you really want to deactivate R:Spell Checker 11?	
	Yes No	

After completing the deactivation of the product, it can be successfully reinstalled and activated.



# 3 Using R:Compiler

# 3.1 User Interface

The R:Compiler user interface has been enhanced into a tabular design for easier manipulation of application projects.

Adjustments made to the visual display of the R:Compiler interface (form size/position, list view controls, column sizes, etc.) are persistent between sessions. The settings are stored in the RCompiler11.SizeCfg configuration file, which is created and stored in the R:Compiler for R:BASE program folder. The file may be deleted to reset the sizes/location settings.

R:Compiler for R:BASI	E 11 - [F:\RBG11_De	mo\RRBYW20	Scripts\RRBY	W20_Demo.r	cp]							7.07		×
General Information	n 🚼 Execut	table lcon	i v	ersion Inforn	nation 🧧	Additional R	esources							
📔 🧰 📲 New Load Save	Save As Cor	npile Batch	D Test	Colors Se	🤹 🤋	슗 R:Compiler	<b>7</b> Activation	Check	i About		] it			
R:BASE Startup File Nam														
F:\RBG11_Demo\RRBYW	V20\Original\RRBY\	N20.dat												
Output File Name (.EXE) F:\RBG11_Demo\RRBYV														1
Themes Support	Create Compac	t Executable:	🗌 Partial C	Compression	Compressio	n Level: Norm	al		~					
Allow Only One Insta	nce of Compiled A	pplication												
Make Evaluation Versi Expiration Date:	ion													
3/15/2023														
Information Message:														
Expiration Message:														
The Demo Version has e	expired.													
Update Resources External Forms	-	Divertee			Misc. Files									
		Plugins			viisc. riies									
Show Loading Windo			1		Background	Color and Font:		1	Dimencio	on (W x H):	Show A	nimation	-	
Loading R:BASE 11 (Ver	rsion 11.0) Demo		Load Image	Clear Image	3D Light			ont		x 80	Load GIF	Clear GIF	Prev (Esc to	
			maye	maye	SU Light			on	400	^ OV	LOAD GIF	Clear GIF	1	

### 3.1.1 Tool Bar

Button	Description
	Clears the options to create a new project
	Opens an existing project
	Save the current project
	Saves the current project as another name
•	<u>Compiles</u> the project to an executable file
	Performs a <u>batch compile</u>
	Launches the compiled executable file for testing

r	
۲	Saves and loads custom colors from other development environments, and between R:BASE Technologies products
4	Settings
?	Launches the R:Compiler Help
\$	Launches the R:Compiler Home Page
-	Displays software information, such as registration number, license key, seat count, and activation key
tt	Launches the R:Compiler Updates Page
•	Launches version information about the product
*	Exits R:Compiler

#### 3.1.2 Settings

#### File Editor

*Path To Executable* - specifies the path to an external editor to modify the compiled executable startup file. The R:BASE Editor can be used to modify command files. R:BASE would be specified to alter external form files and application files.

Command Line Parameters - specifies command line parameters for the file editor executable

File Editor			
Path To Executable:			
C:\RBTI\RBG11\RBG11.es	xe		B
Command Line Paramet	er (%f is a plac	eholder for the actual file name):	
"-E %f" -X			
Sample Command Line	e Parameters:		
Using R:BASE	: "-E %f"	- Edit text, RBA, and RFF files in R:BASE	
Using R:BASE	: "-E %f" -X	- Edit text, RBA, and RFF files in R:BASE and bypass Startup Options (recommended)	
Using R:BASE Editor	: %f	- Edit text files in R:BASE Editor (Stand-Alone)	
Using Notepad	: %f	- Edit text files in Notepad	
Using Notepad++	: %f	- Edit text files in Notepad++	

#### 3.1.3 General Properties

#### **R:BASE Startup File Name**

The R:BASE startup file to specify is the initial file to launch for the custom R:BASE application. The startup file can be an R:BASE application file, an external form file, or a command file. A "Browse..." button is available to browse for the location of the R:BASE startup file. After specifying the startup file, the path and file name will appear.

An "Edit file" button is also available to easily modify the startup file. Prior to editing the file, the R:Compiler for R:BASE <u>Settings</u> must be configured to specify the program that will alter the startup file. For example, the R:BASE Editor can be used to modify text command files. R:BASE would be specified to alter external form files and application files.

Any additional files that must be added to an R:Compiler for R:BASE project, can be loaded within the <u>Additional Resources</u> menu.

#### Output File Name (.EXE)

A "Browse..." button is available to browse and define a destination location for the compiled executable. A different file name can be created for the compiled executable, other than the value provided, which is based upon your specified startup file.

*Themes Support* - specifies if the executable supports R:BASE form skinning (skins/themes). When unchecked, R:BASE forms are native. The advantage to being a native form is the program does not have the possible quirks/encounters that can be introduced when manual drawing forms, compared to the operating system drawing the forms and controls. The default value is checked.

*Create Compact Executable* - specifies if the executable is compressed. To create an uncompressed executable, uncheck this option and recompile the project. To see if the setting suits an application, try comparing the memory used of the compiled application when this setting is checked and unchecked, as a compressed executable will allocate more memory. The default value is checked.

*Partial Compression* - specifies if the executable is partially compressed. When checked, only the "code" portion of the executable is compressed. The "resources" are not compressed. When unchecked, both "code" and "resources" are compressed. The default value is unchecked. The option only works if "Create Compact Executable" is checked.

*Compression Level* - specifies the executable compression level to improve the compile time. Options include: Fastest, Fast, Normal, Good, Best (slow). The fast options provide minimum compression.

**Tip:** For compiled applications that do not contain or require decorative subject matter, it is recommended to uncheck the settings, so the result is a native application without compression.

#### Allow Only One Instance of Compiled Application

When enabled, the number of instances that the compiled executable can be launched is limited to one. If the executable is launched while it is already running, the existing instance will take focus on the screen.

	YW20\Original\RRBYW20.dat					
Output File Name (.E)	(E)					
F:\RBG11_Demo\RRB	YW20\RRBYW20.exe					
Themes Support	Create Compact Executable	Partial Compression	Compression Level: Normal	$\sim$		
Allow Only One In	stance of Compiled Application					
Make Evaluation V	ersion					
Expiration Date:						
3/15/2023						
Information Message						
Expiration Message:						
The Demo Version ha	as expired.					
Update Resources						
External Forms	🕑 Plugins	🖂 M	lisc. Files			
Show Loading Win	dow	1		Totala and concerns		
Loading R:BASE 11 (	Version 11.0) Demo	Load Clear	Background Color and Font:	Dimension (W x H):	Show Animation	Preview
			☐ 3D Light ∨ Font	400 x 80		[Esc to Close]

#### Make Evaluation Version

The available "Make Evaluation Version" check box permits the ability to incorporate an expiration date for a custom program.

*Expiration Date* - specifies the date in which the program will no longer launch *Info Message* - specifies the message displayed every time the evaluation version of the program is launched

*Expiration Message* - specifies the message displayed once the expiration date has been reached by the computer's system clock

#### **Update Resources**

External Form Files - enables the ability to automatically update defined external form files

*Plugins* - enables the ability to automatically update defined plugins *Misc. Files* - enables the ability to automatically update defined misc. files

#### **Show Loading Window**

The available "Show Loading Window" check box allows a load window to be displayed while the program is launching. The available field is used to enter a custom message for the window. Multiple lines can be entered for the message.

Load Image/Clear Image - specifies to display or clear an image for the load window Background and Font - specifies the background color and text font Dimension - specifies the width and height Show Animation - specifies if an animation is displayed Load GIF/Clear GIF - specifies to display or clear an animated GIF for the load window Preview - displays a preview of the load window

With the Loading Window feature, several PROPERTY command parameters can also be implemented:

PROPERTY LOADWINDOW TITLE 'Your Message Here' PROPERTY LOADWINDOW PROGRESS nnn (0-100) PROPERTY LOADWINDOW CAPTION 'Your Caption' PROPERTY LOADWINDOW SHOWINDICATOR 'TRUE' PROPERTY LOADWINDOW CLOSE 'TRUE'

#### Notes

- The SHOWINDICATOR parameter is used to display a moving gif image.
- The CLOSE parameter is used to close the progress window when the application launches. This command would be placed in a form within the "On After Start" EEP.
- These PROPERTY commands are supported for R:Compiler ONLY.

#### 3.1.4 Executable Icon

The available "Change Executable Icon" check box permits the ability to specify a custom icon. If the check box is disabled, the compiled executable will display the R:BASE 11 icon.

To specify an icon file, enable the check box and select the "Browse..." button to browse for an existing icon file. After browsing and selecting the icon file, the path and file name will appear. The compiled executable will then display the icon loaded from specified file. A preview of the icon is provided.



#### 3.1.5 Version Information

The available "Include Version Information" check box permits the ability to specify program version information based upon the current R:Compiler project. The entered criteria is displayed when viewing the properties for the compiled executable.

If check box is unchecked, no version information will be saved with compiled executable and the version information will be empty. In some look ups, the returned value may be 1.0.0.0.

**Note:** When capturing the version and build information from a compiled application using the **SHOW BUILD** and **SHOW VERSION** commands, as well as the **(CVAL('BUILD'))** and **(CVAL('VERSION'))** functions, the details returned will be based upon the values defined within the Version Information tab. The version and build, and all other fields, may also be captured using **GETPROPERTY** APPLICATION command syntax.

Include Version Info	rmation	
Major Minor Version: Version	Release: Build:	
	0 🔹 1 🔹 21217 🔹	
Auto-increment B	uild Number	
Company Name:	R:BASE Technologies Inc.	
File Description:	RRBYW20 Sample Compiled Application	
File Version:	11.0.1.21217	
Internal Name:	RRBYW20.exe	
Legal Copyrights:	Copyright © 1982-2022 R:BASE Technologies, Inc.	
Legal Trademarks:	R:BASE is a Registered Trademark of R:BASE Technologies, Inc.	
Original File Name:	RRBYW20.exe	
Product Name:	Running R:BASE Your Way (version 20) Sample Application	
Product Version:	11.0.1.21217	Append R:Compiler Build Number in Product Version
Comments:	The Industrial Answer to Building Relational Solutions!	

#### Version Information Fields:

Major Version - First parameter of version number Minor Version - Second parameter of version number Release - Third parameter of version number Build - Forth parameter of version number

For example if version number is 4.3.23.11523, then the following was specified:

```
Major Version: 4
Minor Version: 3
Release: 23
Build: 11523
```

#### **Auto-increment Build Number:**

Increases the compiled executable build number by 1 each time the project is compiled.

#### **Company Name:**

Specifies the company that produced the file, for example, "Microsoft Corporation" or "Standard Microsystems Corporation, Inc."

#### **File Description:**

Specifies a file description to be presented to users. This string may be displayed in a list box when the user is choosing files to install, for example, "Keyboard Driver for AT-Style Keyboards".

#### **File Version:**

Specifies the version number of the file, for example, "3.10.0.0". The file version is result of the built from Major Version, Minor Version, Release, and Build values.

#### **Internal Name:**

Specifies the internal name of the file, if one exists, for example, a module name if the file is a DLL. If the file has no internal name, this string should be the original file name, without extension.

#### Legal Copyright:

Specifies all copyright notices that apply to the file. This should include the full text of all notices, legal symbols, copyright dates. For Example: "Copyright © Civic Systems Corporation 1990–2012".

#### Legal Trademarks:

Specifies all trademarks and registered trademarks that apply to the file. This should include the full text of all notices, legal symbols, trademark numbers, etc.

#### **Original File Name:**

Specifies the original name of the file, not including a path. This information enables an application to determine whether a file has been renamed by a user. The format of the name depends on the file system for which the file was created.

#### Product Name:

Specifies the name of the product with which the file is distributed.

#### **Product Version:**

Specifies the version of the product with which the file is distributed. For Example: "3.10" or "5.00.rc2"

#### **Append R:Compiler Build Number in Product Version:**

Appends the R:Compiler for R:BASE product build after the Product Version information.

#### **Comments:**

Specifies additional information that should be displayed for diagnostic purposes.

#### 3.1.6 Additional Resources

Database and file resources can be added to your compiled executable project.

Database resources include:

- R:BASE External Forms
- Forms
- Reports
- Labels

File resources include:

- Plugins (.rbm)
- the R:BASE Engine file (.dll)
- Themes (.msstyles, .theme, .uskn, .kskn, .xskn, .mskn)
- R:BASE Command Files (.dat, .rmd, .cmd, .app, .eep, .vie, .pro, .frm, .rpt, .lbl, .str, .all, .lst, .tbl)
- R:Charts chart files (.rbc)
- R:BASE Gateway Import/Export Specification files (.rgw)
- R:Mail Editor Template files (.rmt)
- R:BASE Application Files (.rba)
- Font Files (.tff)

#### 3.1.6.1 External Form Files

Adding an external form file to the list of resources can be performed by selecting the "Add External Form File" button on the Tool Bar. You will be prompted to locate the appropriate external form file with the .rff file extension. After an external form file is added as a resource, it will be assigned a "Resource ID". This ID consists of the external form file name.

#### <u>Tool Bar</u>

Button	Description
•	Add External Form File
×	Delete Resource(s)
<b>■</b> I	Rename Resource
G	Update External Form File
7	Unload External Form
巩	Embed R:BASE Engine into Executable

Deleting an existing external form file from the list of resources can be performed by selecting the listed external form file and pressing the "Delete Resource(s)" button.

If at any time an external form is altered within R:BASE, the external form can easily be updated within the R:Compiler project using the "Update External Form File" button. R:Compiler will assume that the stored location for the external form has not changed.

If you need to unload the external form file from the compiled project, you can do so using the "Unload External Form..." button.

Be sure to refer to the <u>Tips</u>.

Forms Reports Labels	Themes	Runtime Licenses	lugins 🗔 N	fisc. Files
Comment	Size (bytes)	Date/Time	Version	Source
R:BASE 11 - Split View Sample	14,838	11/16/2022 4:42:28 PM	2	F:\RBG11_Demo\RRBYW20\Original\SplitView_Sample.rff
R:BASE 11 - Tile Menu Sample	27,020	11/16/2022 4:42:34 PM	2	F:\RBG11_Demo\RRBYW20\Original\TileMenu_Sample.rff
R:BASE 11 - Tree View Sample	31,108	11/16/2022 4:42:42 PM	2	F:\RBG11_Demo\RRBYW20\Original\TreeView_Sample.rff
•10				
	Comment R:BASE 11 - Split View Sample R:BASE 11 - Tile Menu Sample	Comment         Size (bytes)           R:BASE 11 - Split View Sample         14,838           R:BASE 11 - Tile Menu Sample         27,020	Comment         Size (bytes)         Date/Time           R:BASE 11 - Split View Sample         14,838         11/16/2022 4:42:28 PM           R:BASE 11 - Tile Menu Sample         27,020         11/16/2022 4:42:34 PM	R:BASE 11 - Split View Sample         14,838         11/16/2022 4:42:28 PM         2           R:BASE 11 - Tile Menu Sample         27,020         11/16/2022 4:42:34 PM         2

#### 3.1.6.2 R:BASE Forms

Adding a form to the list of "Additional Resources" must be performed by also viewing the Database Explorer while connected to your database running R:BASE. While viewing the Forms screen of the Database Explorer, select the desired form(s) to be added as a resource, and press the [Ctrl+C] keys to send the object(s) to the clipboard. Then, change to the R:Compiler Additional Resources menu and press the "Paste from Clipboard" button. The form(s) will appear as resources. The reverse is also supported to copy a form from the R:Compiler project back to the R:BASE database using the "Copy to Clipboard" button and the [Ctrl+V] keys.

|--|

Button	Description
×	Delete Resource(s)
I	Rename Resource
, star i	Copy to Clipboard
L I	Paste from Clipboard
现	Embed R:BASE Engine into Executable

After a form is added as a resource, it will be assigned a "Resource ID". This ID consists of the form name. An appropriate icon is also displayed for the resource.

Deleting an existing form from the list of resources can be performed by selecting the listed form and pressing the "Delete Resource(s)" button.

Also, be sure to refer to the <u>Tips</u>.

Resource ID	Original Form Name	Main Table	Comment	Size (bytes)	Date/Time	Version
LayoutManager	LayoutManager	ContactCallNotes	Layout Manager Sample- Review/Update C	79,581	11/15/2022 4:29:00 PM	2
TimePicker	TimePicker		New Time Picker Control	17,286	11/15/2022 4:30:00 PM	2
Titles	Titles	Titles	To Add/Review Employee Titles	29,851	11/15/2022 4:30:00 PM	2
ThemeSelector	ThemeSelector	Customer	Dynamic R:BASE eXtreme Theme Selector	152,884	11/15/2022 4:30:00 PM	2
TileMenu_DynFrms	TileMenu_DynFrms		Tile Menu Sample - Dynamic Customer Tiles	16,441	11/15/2022 4:30:00 PM	2
VarGaugeForm	VarGaugeForm			33,738	11/15/2022 4:30:00 PM	2
WEBBrowserProperty	WEBBrowserProperty		To Demonstrate the Use of New WEB Browe	25,165	11/15/2022 4:30:00 PM	2
UsingListVAsCHOOSE	UsingListVAsCHOOSE	FormTable	Using Variable Lookup ListView As Enhance	22,784	11/15/2022 4:30:00 PM	2
VarDateAndTimeEdit	VarDateAndTimeEdit			30,369	11/15/2022 4:30:00 PM	2
LAUNCH_Cmd	LAUNCH_Cmd		New LAUNCH Command Parameters	28,206	11/15/2022 4:29:00 PM	2
InvoicesMaster	InvoicesMaster	InvoicesMaster	DBTreeGrid Demo	65,503	11/15/2022 4:29:00 PM	2
JumpAndJumpTo	JumpAndJumpTo	Customer	To Demonstrate the use of JUMP and JUMP	43,825	11/15/2022 4:29:00 PM	2
OrganizationMap	OrganizationMap	OrganizationView	DB OrgChart Sample - Company Organizati	31,869	11/15/2022 4:29:00 PM	2
PaymentTerms	PaymentTerms	PaymentTerms	To Add/Review Payment Terms	30,682	11/15/2022 4:29:00 PM	2
LinkLabelControl	LinkLabelControl		Using New Link Label Control	8,512	11/15/2022 4:29:00 PM	2
MutuallyExclusive	MutuallyExclusive	FormTable	MutuallyExclusive Enhanced CHOOSE	21,574	11/15/2022 4:29:00 PM	2
FormTimer	FormTimer		To Demonstrate the Use of Form Timer Prop	6,986	11/15/2022 4:29:00 PM	2
DynamicListViews	DynamicListViews	FormTable	Dynamic CHOOSE Using ListViews Control	17,225	11/15/2022 4:29:00 PM	2
Employees	Employees	Employee	Enter/Update Employee(s)	61,291	11/15/2022 4:29:00 PM	2
DirTreeControl	DirTreeControl		To Demonstrate the Use of DirectoryTree Co	8,789	11/15/2022 4:29:00 PM	2
DualScrollRegion	DualScrollRegion	Customer	Scrolling Regions with New Supported Cont	51,495	11/15/2022 4:29:00 PM	2
FormAnimation	FormAnimation	FormTable	To Demonstrate the Form Closing Behavior	16,352	11/15/2022 4:29:00 PM	2
FormSystemVars	FormSystemVars	Contact	Form System Variables	40,360	11/15/2022 4:29:00 PM	2
EnhancedCalendar	EnhancedCalendar		New Enhanced Calendar Control	15.072	11/15/2022 4:29:00 PM	2

#### 3.1.6.3 R:BASE Reports

Adding a report to the list of "Additional Resources" must be performed by also viewing the Database Explorer while connected to your database running R:BASE. While viewing the Reports screen of the Database Explorer, select the desired report(s) to be added as a resource, and press the [Ctrl+C] keys to send the object(s) to the clipboard. Then, change to the R:Compiler Additional Resources menu and press the "Paste from Clipboard" button. The report(s) will appear as resources. The reverse is also supported to copy a report from the R:Compiler project back to the R:BASE database using the "Copy to Clipboard" button and the [Ctrl+V] keys.

#### <u>Tool Bar</u>

Button	Description
×	Delete Resource(s)
-I	Rename Resource
Ū.	Copy to Clipboard
L I	Paste from Clipboard
巩	Embed R:BASE Engine into Executable

After a report is added as a resource, it will be assigned a "Resource ID". This ID consists of the report name. An appropriate icon is also displayed for the resource.

Deleting an existing report from the list of resources can be performed by selecting the listed report and pressing the "Delete Resource(s)" button.

Also, be sure to refer to the <u>Tips</u>.

#### 😣 📑 🖸 🗒 🚺

📰 External Forms 🗇 Forms 🙀 Reports 🛄 Labels 🖂 Themes 🍵 Runtime Licenses 🔗 Plugins 🛱 Misc. Files

Resource ID	Original Reports Name	Main Table	Comment	Size (bytes)	Date/Time	Version
CustYellowPages	CustYellowPages	Customer	Customer Phone Directory (Yello	10,180	11/15/2022 4:31:00 PM	2
DBCalcLineCount	DBCalcLineCount	SalesDataByCompany	YTD Sales Summary and Sub-Tota	22,814	11/15/2022 4:31:00 PM	2
EmployeeList	EmployeeList	Employee	List of Employees	12,416	11/15/2022 4:31:00 PM	2
CustomerList	CustomerList	Customer	List of Active Customers	11,279	11/15/2022 4:31:00 PM	2
Customers	Customers	Customer	Master List of Customers	11,515	11/15/2022 4:31:00 PM	2
CustomPageInvoice	CustomPageInvoice	ProdAlias	Invoice with Custom Page Numb	35,559	11/15/2022 4:31:00 PM	2
FormInReports	FormInReports	Customer	To Demonstrate the use of bringi	17,345	11/15/2022 4:31:00 PM	2
InvoiceBold	InvoiceBold	ProductInvoice	Invoice Wizard - Bold Style	31,990	11/15/2022 4:31:00 PM	2
InvoiceCasual	InvoiceCasual	ProductInvoice	Invoice Wizard - Casual Style	31,936	11/15/2022 4:31:00 PM	2
InvoiceCompact	InvoiceCompact	ProductInvoice	Invoice Wizard - Compact Style	31,810	11/15/2022 4:31:00 PM	2
GetPropInReports	GetPropInReports	NewCustomer	Using GETPROPERTY Command t	35,380	11/15/2022 4:31:00 PM	2
InventoryList	InventoryList	ProdLocation	Inventory List	10,688	11/15/2022 4:31:00 PM	2
Invoice	Invoice	ProdAlias	Customer Billing Invoice	36,398	11/15/2022 4:31:00 PM	2
Contacts	Contacts	Contact	Customer Contact List	10,831	11/15/2022 4:31:00 PM	2
ContactsByCustomer	ContactsByCustomer	Contact	Contact List by Customer	13,265	11/15/2022 4:31:00 PM	2
CoverPageAndDetail	CoverPageAndDetail	Customer	Customer List by State (Summary	14,744	11/15/2022 4:31:00 PM	2
AdvancedRichText	AdvancedRichText	Contact	Advanced Rich Text Report	46,968	11/15/2022 4:31:00 PM	2
ColumnarReport	ColumnarReport	Customer	To Demonstrate Columnar Report	7,773	11/15/2022 4:31:00 PM	2
ConditionalChkBox	ConditionalChkBox	YTDInvoiceTotal	To Demonstrate the use of Condit	17,611	11/15/2022 4:31:00 PM	2
CrossTabReport	CrossTabReport	TCrossTabView	CrossTab Report (Standard)	9,273	11/15/2022 4:31:00 PM	2
CustDirWithURL_VAR	CustDirWithURL_VAR	Customer	Customer Phone Directory with	10,441	11/15/2022 4:31:00 PM	2
CustomerContacts	CustomerContacts	Customer	Sub-Reports (2 Tables): Customer	16,503	11/15/2022 4:31:00 PM	2
CustomerDirectory	CustomerDirectory	Customer	Customer Phone Directory	10,825	11/15/2022 4:31:00 PM	2
CrossTabReportCust	CrossTabReportCust	TCrossTabView	CrossTab Report (Custom)	10.399	11/15/2022 4:31:00 PM	2

#### 3.1.6.4 R:BASE Labels

Adding a label to the list of "Additional Resources" must be performed by also viewing the Database Explorer while connected to your database running R:BASE. While viewing the Labels screen of the Database Explorer, select the desired label(s) to be added as a resource, and press the [Ctrl+C] keys to send the object(s) to the clipboard. Then, change to the R:Compiler Additional Resources menu and press the "Paste from Clipboard" button. The label(s) will appear as resources. The reverse is also supported to copy a label from the R:Compiler project back to the R:BASE database using the "Copy to Clipboard" button and the [Ctrl+V] keys.

#### Tool Bar

Button	Description
×	Delete Resource(s)
<b>I</b>	Rename Resource
Ū.	Copy to Clipboard
L I	Paste from Clipboard
迅	Embed R:BASE Engine into Executable

After a label is added as a resource, it will be assigned a "Resource ID". This ID consists of the label name. An appropriate icon is also displayed for the resource.

Deleting an existing label from the list of resources can be performed by selecting the listed label and pressing the "Delete Resource(s)" button.

Also, be sure to refer to the <u>Tips</u>.

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Resource ID	Original Label Name	Main Table	Comment	Size (bytes)	Date/Time	Version
SecurityNameTags	SecurityNameTags	Employee	Employee Name Tags	4,912	11/15/2022 4:32:00 PM	2
SecureNmTag	SecureNmTag	Employee	2DBarcode Security Tag	5,308	11/15/2022 4:32:00 PM	2
ProductLabels	ProductLabels	Product	Product Labels with Bar Code	6,591	11/15/2022 4:32:00 PM	2
LabelExpressions	LabelExpressions	Customer	Customer Labels	4,357	11/15/2022 4:32:00 PM	2
EmployeeNameTags	EmployeeNameTags	Employee	Employee Name Tags	5,208	11/16/2022 10:54:00 AM	3
EmployeeLabel	EmployeeLabel	Employee	Employee Labels	5,540	11/15/2022 4:32:00 PM	2
CustShpLabl	CustShpLabl	Customer	2DBarcode Shipping Label	7,638	11/15/2022 4:32:00 PM	2
CustShippingLabel	CustShippingLabel	Customer	Customer Shipping Label	7,629	11/15/2022 4:32:00 PM	2
CustomerLabels	CustomerLabels	Customer	Customer Labels	4,831	11/15/2022 4:32:00 PM	2
ContactLabel	ContactLabel	Contact	Contact Address Label	5,824	11/15/2022 4:32:00 PM	2

#### 3.1.6.5 Themes

Themes can be added to the compiled executable from individual theme files, or from the R:BASE Theme library.

#### Tool Bar

Button	Description
Đ	Add <u>Theme</u> , Load Theme(s) from Library
×	Delete Resource(s)
I.	Rename Resource
巩	Embed R:BASE Engine into Executable

#### Individual Theme

Adding an individual theme to the list of resources can be performed by selecting the "Add Theme" button on the Tool Bar. You will be prompted to locate the appropriate theme file. The following file extensions are supported:

- msstyles
- theme
- uskn
- kskn
- xskn
- mskn

After a theme file is added as a resource, it will be assigned a "Resource ID". This ID consists of the theme file name. In the screen shot at the bottom, the first three theme resources are individual theme files. The bottom three themes were loaded from the R:BASE Theme library.

#### **R:BASE Theme Library**

Adding a theme to the list of resources from R:BASE Theme Library can be performed by selecting the "Load Theme(s) from Library..." option, from the "Add Theme" drop-down menu button on the Tool Bar. In order to use this option, the RBThemes11.DLL must already be placed into the R:Compiler for R:BASE 11 program directory. You will be prompted to select the appropriate theme:

elect Theme to Add		>
Available Themes		
Aqua		
BeOS		1
Blade		
Blue Monkey		
Bugatti		
Catalyst		I
Celestial		
Chrome		
Clear Orange		
Convergence		
Crystal Blue		
Dazzle		
Deep Cyan		
Deep Green		
Deep Orange		
Destiny		
Diamond Blue		
Diamond Green		
Elegance		
Eternal		
Forest Green		
	OK	Cancel

After a theme is added as a resource, it will be assigned a "Resource ID". This ID consists of the theme name. In the screen shot below, the first three theme resources are individual theme files. The bottom three themes were loaded from the R:BASE Theme library.

🖸 - 👩 📑 🕅						
External Forms	Forms 🔤 Rej	ports 🔄 Labels 🖂 Themes 📮 Runtime Licenses 🔊 Plugins 🚍 Misc. Files				
Resource ID	Size (bytes)	Source				
Vista CG	3,492,369	Internal : Vista CG.msstyles				
Diamond	1,540,205	External : F:\RBG11_Demo\RRBYW20\Original\Diamond.msstyles				
Futura	1,822,825	External : F:\RBG11_Demo\RRBYW20\Original\Futura.msstyles				

Deleting an existing theme from the list of resources can be performed by selecting the listed theme resource and pressing the "Delete Resource(s)" button.

#### 3.1.6.6 Runtime Licenses

Any Runtime License pertaining to a Plugin for an R:BASE add-on product must be stored in the compiled executable. A specific Runtime License Key would be provided after your purchase of the Runtime software product.

Tool Bar	
Button	Description
•	Add <u>License</u>
×	Delete Resource(s)

<b>I</b>	Rename Resource			
巩	Embed R:BASE Engine into Executable			

Adding a Runtime License to your project can be done by selecting the "Add License" button, and pasting the appropriate Runtime License Key into the displayed dialog window.

After a Runtime License is added as a resource, it will be assigned a "Resource ID". This ID consists of the word "License" and an incrementing value for the number of licenses added to the executable.

🖸 🔕 📑 🗍 म	G	
External Forms	Forms	Reports 🖺 Labels 🖂 Themes 📄 Runtime Licenses 🔊 Plugins 🚍 Misc. Files
Resource ID	License Key	Product Name
License	2510-0058-25	R-Mail 11
License_1	2510-0060-23	R:BASE Plugin Power Pack 11
License_2	2610-0053-27	R:Charts 11

#### 3.1.6.7 Plugins

Plugins for an R:BASE add-on product can be added and stored within the compiled executable. In addition to storing the Plugin within the executable or including the Plugin with the within the custom R:BASE application directory, the <u>Runtime License</u> Key pertaining to the Plugin must also be stored in the compiled executable.

Tool Bar	
Button	Description
•	Add <u>Plugin</u>
8	Delete Resource(s)
<b>■</b> Į	Rename Resource
G	Update Plugin
巩	Embed R:BASE Engine into Executable

Adding a Plugin to the list of resources can be performed by selecting the "Add Plugin" button on the Tool Bar. You will be prompted to locate the appropriate Plugin file with the .rbm file extension.

After a Plugin file is added as a resource, it will be assigned a "Resource ID". This ID consists of the Plugin file name.

If at any time a new Plugin is available, the Plugin can easily be updated within the R:Compiler project using the "Update Plugin" button. R:Compiler will assume that the stored location for the Plugin has not changed.

Deleting an existing resource from the list of resources can be performed by selecting the listed resource and pressing the "Delete Resource(s)" button.

External Forms	Forms Reports	Labels 🖂 Th	nemes 📮 Runtime Licenses 🔊 Plugins 🚍 Misc. Files
Resource ID	Date/Time	Size (bytes)	Source
RMail11.RBM	11/11/2022 2:50:34 AM	5,912,658	F:\RBG11_Plugins\RMail11.RBM
RBASEPluginPowerPack	11/11/2022 2:50:00 AM	18,642,062	F:\RBG11_Plugins\RBASEPluginPowerPack11.RBM
RCharts11.RBM	11/11/2022 2:50:28 AM	19,152,986	F:\RBG11_Plugins\RCharts11.RBM

#### 3.1.6.8 Misc. Files

Several other miscellaneous files can also be included with the compiled executable, such as:

- R:BASE Command Files (.dat, .rmd, .cmd, .app, .eep, .vie, .pro, .frm, .rpt, .lbl, .str, .all, .lst, .tbl)
- R:Charts Files (.rbc)
- R:BASE Gateway Import/Export Specification Files (.rgw)
- R:Mail Editor Template Files (.rmt)
- R:BASE Application Files (.rba)
- Font Files (.tff)

#### Tool Bar

I OOI Bar	
Button	Description
Đ	Add Miscellaneous Files
×	Delete Resource(s)
<b>I</b>	Rename Resource
C	Update File
巩	Embed R:BASE Engine into Executable

Adding any of the above miscellaneous files to the list of resources can be performed by selecting the "Add Miscellaneous Files" button on the Tool Bar. You will be prompted to locate the appropriate file.

After a miscellaneous file is added as a resource, it will be assigned a "Resource ID". This ID consists of the file name.

If at any time a new miscellaneous file is available, the file can easily be updated within the R:Compiler project using the "Update File" button. R:Compiler will assume that the stored location for the file has not changed.

Deleting an existing file from the list of resources can be performed by selecting the listed resource and pressing the "Delete Resource(s)" button.

External Forms	Forms 🖳 Reports 🛅	Labels 🖂 Th	emes 📮 Runtime Licenses 🔊 Plugins 🔂 Misc. Files
Resource ID	Date/Time	Size (bytes)	Source
States.rgw	11/16/2022 4:31:08 PM	4,497	F:\RBG11_Demo\RRBYW20\Original\States.rgw
Customer.rgw	11/16/2022 4:30:56 PM	4,524	F:\RBG11_Demo\RRBYW20\Original\Customer.rgw

#### 3.1.6.9 Embed R:BASE Engine into Executable

When the setting is enabled, the R:BASE Engine DLL is embedded into the compiled executable, which alleviates the responsibility to include the DLL in the final application folder. To insure the most current engine DLL is embedded into the executable, make sure the latest version in located in the R:Compiler for R:BASE program folder.

Be sure to refer to the <u>Tips</u> for using Database Resources.

#### 3.1.6.10 Tips

The following will assist in your use of R:Compiler for R:BASE when using Database Resources like forms, reports, and labels:

- Multiple objects can be selected in the R:BASE Database Explorer to copy into your R:Compiler project. Use the [Shift+Arrow] keys or the [Ctrl] key with the left mouse button to select more than one object.
- Only [Ctrl+C] at the R:BASE Database Explorer can be used to send your R:BASE resources to the clipboard for R:Compiler to recognize the objects.
- Only one "type" of object can be added at a time. One or more forms must be added separately than when adding reports or labels.
- All listed resources can be cleared by using the "Clear Resources" button.
- After adding Forms/Reports/Labels as resources, make a backup copy of the database, delete those added resources from the database, and reload the database to decrease the overall size and improve network speed.
- When running a compiled executable where a specific resource resides in the executable AND the actual database files, the resource which resides in the executable will be recognized first.
- If a resource has been removed from the database, and needs replaced for editing, the item can be copied from the R:Compiler project to the Database Explorer. Use the "Copy to Clipboard" button in R:Compiler, and then [Ctrl+V] at the R:BASE Database Explorer window.
- When choosing to "Update" an external form file, Plugin, miscellaneous file, R:Compiler will assume that the stored location for the file has not changed.
- In addition to the Additional Resources toolbar, a speed menu is also available if with a right click.

# 3.2 Compiling Executables

When compiling an executable, each compilation can be saved as a project. This allows you to save the custom settings for future compilations, or to make slight changes, and create separate compilation projects; like expiring versions. Multiple projects can be used for different custom programs and different versions for those programs.

When compiling an executable, it is important that the versions of R:BASE and R:Compiler be the same. Also, the R:BASE and R:Compiler builds must exactly match in order to insure the products coincide with one another. A feature added in a new build of R:BASE may not be recognized in an older compiled executable, thus possible losing functionality in your custom program.

It is also important that a new custom executable be compiled after R:Compiler is updated with the same build as R:BASE. This insures that new product features and bug fixes will carry on to the custom program.

#### 3.2.1 First Compile Project

1. The initial step in your first compilation is to locate and specify your R:BASE "startup file" that initializes the custom program. This can be an R:BASE application file, an external form file, or a command file. This startup file must be designated to connect to the R:BASE database in the beginning parameters, either through the CONNECT command or in the Application Designer settings.

From the "General Properties" tab, type in the path and file name of your application file, or choose the "Browse..." button to search your computer for the file.

After specifying the application file name, R:Compiler will automatically complete the path and executable name for the output file name. You can then edit this information or use it for your final output name.

- 2. Without selecting any other custom settings like using a different executable icon, adding file version information, or creating an expiring version of your application, you can immediately compile your application file. To compile the startup file, select the "Compile" button on the tool bar.
- 3. The compiled executable can now be tested. To do so, select the "Test" button on the tool bar.

After testing, the executable is ready for distribution. But, be sure to take advantage of the additional options that R:Compiler offers, like using a different executable icon, adding file version information, or creating an expiring version of your application.

Be sure to save your R:Compiler project!

#### 3.2.2 Saving Projects

After making changes to an existing project or creating new projects, always save your work. R:Compiler project files are saved with the .rcp file extension.

- To save any changes made to an existing project, select the "Save" button on the tool bar.
- To save any changes made to an existing project as another project name, select the "Save As..." button on the tool bar.

#### 3.2.3 Recompiling

When recompiling an existing project, make sure to update the R:Compiler software to coincide with any R:BASE updates made since your last compilation. This will insure that the distributed executable and engine files are current. To access the R:Compiler updates, choose the Check button on the tool bar.

- 1. The first step to recompiling your executable is to open a saved R:Compiler project file (.rcp). R:Compiler projects can be loaded by selecting the "Load" button on the tool bar.
- 2. Confirm the loaded project. To compile the project, select the "Compile" button on the tool bar.
- 3. The compiled executable can now be tested. To do so, select the "Test" button on the tool bar.

After testing, the executable is ready for distribution.

#### 3.2.4 Batch Compile

The Batch Compile supports the ability to add several R:Compiler projects, and to compile all at once.

Batch Compile			Sec. 2		×
Project File	Last Modified	Path			
Add Project	Remove Compile All			Close	

Notes:

- The projects can be located in different folders.
- The project list is saved in the BATCHCOMPILE.DAT file located in the same folder as the R:Compiler executable.
- Message prompts, such as non-existing resources or prompts to overwrite destination executable, are not displayed. This is so the batch compile will run uninterrupted.
- A summary of compilation result is displayed after completion.

# Part IV

#### 4 Developing the Program

This section discusses how to use R:BASE for preparing a custom program for use with R:Compiler. A custom program has the following files:

- Database files
- Application files (may not be necessary if you store your code within the forms)
- Startup file for the application
- Customized application version of the R:BASE configuration file, RBENGINE11.CFG
- Online Help/Documentation

In addition, you may provide instructions to the user for starting your application.

#### 4.1 R:BASE Modules Unsupported in Compiled Programs

R:Compiler executables contain the R:BASE commands needed to run an R:BASE application. However, to protect the integrity of the database structure and prevent users from leaving the provided custom program, the following R:BASE features are unavailable in the custom program:

- Database Explorer, with Menu Bar and Tool Bar
- Table, View, Stored Procedure, Form, Report, Label, External Form, and Application Designers
- Data Dictionary
- Query Builder/Wizard
- R> Prompt
- R:BASE Editor

The R:BASE commands that are unavailable in compiled programs are:

- CODELOCK
- DEFF
- FORMS
- HELP
- LIST
- LIST ACCESS
- QUERY
- QUIT
- RBAPP
- RBDEFINE
- RBEDIT
- RBLABELS
- REPORTS
- RULES
- SET (without a keyword)
- TRACE

#### 4.2 Building the Database and Application Files

You must use R:BASE to develop the database and application files. It is important that the versions of R:BASE and R:Compiler be the same. For example, if you are going to use R:Compiler 11, your database and applications must have been created with R:BASE 11. Also, the R:BASE and R:Compiler builds must exactly match in order to insure the products coincide with one another. A feature added in a new build of R:BASE may not be recognized in an older compiled executable, thus possible losing functionality in your custom program.

It is also important that a new program executable be compiled after R:Compiler is updated with R:BASE. This insures that new product features and bug fixes will carry on to the custom program.

Use the following guidelines when creating your application:

- If you build your application files using a text editor, the application must not contain any R:BASE commands that are unavailable in R:Compiler. For the commands that are unavailable, see the list of <u>unavailable commands</u>.
- Include an **EXIT** command at the end of the startup file.
- Your application must have adequate error checking routines to ensure proper processing.
- If an application nests more than six application files, use the SET FILES command to increase the number of application files that can be nested. Add this command to the startup file, placing it before the main menus are displayed.
- You can encode the application files you build using CODELOCK.
- You can password protect you forms and external form files (.rff) at Runtime mode.
- You can password protect your application file (.rba).

Before installing the database and custom program at an end user's site, test the program on your own computer.

#### 4.3 Creating the Startup File

R:Compiler uses the startup file to determine which application to run or what database to connect to. If you have developed your application using the Application Designer, you can specify the application file (.rba) as your startup file. If you have developed your application using the External Form Designer, you can specify the external form file (.rff) as your startup file. Otherwise, you can create a startup file using the R:BASE Editor. A startup file can have any name and file extension, although R:BASE startup files usually have the .dat file extension.

After creating a startup file, test the startup file with the database and application.

The following are examples of startup files:

#### **Examples:**

Example 01:

```
--CONCOMP.DAT

--ConComp Application Startup file using a form as the menu system

IF(CVAL('DATABASE')) <> 'CONCOMP' OR (CVAL('DATABASE')) IS NULL THEN

CONNECT CONCOMP IDENTIFIED BY NONE

ENDIF

CLS

EDIT USING MenuForm

EXIT
```

Example 02:

```
--CONCOMP.DAT
--ConComp Application Startup file using codelocked files as the menu system
RUN CONCOMP IN CONCOMP.APX
EXIT
```

Example 03:

-- Automates the process of CONNECTing to a database in a network environment with SET STATICDB ON, SET FASTLOCK ON, SET ROWLOCKS ON, and SET PAGELOCK OFF.

-- MyApp.DAT Startup Application File -- Start Fresh CLEAR ALL VARIABLES LABEL StartFresh DISCONNECT SET QUOTES=NULL SET QUOTES=' SET DELIMIT=NULL

```
SET DELIMIT=','
   SET LINEEND=NULL
   SET LINEEND='^'
   SET SEMI=NULL
   SET SEMI=';'
   SET PLUS=NULL
   SET PLUS='+'
   SET SINGLE=NULL
   SET SINGLE='_'
   SET MANY=NULL
   SET MANY='%'
   SET IDQUOTES=NULL
   SET IDQUOTES='`'
   SET CURRENCY '$' PREF 2 B
   DISCONNECT
   SET STATICDB ON
   SET ROWLOCKS ON
   SET FASTLOCK ON
   SET PAGELOCK OFF
   SET MESSAGES OFF
   SET ERROR MESSAGES OFF
   SET ERROR MESSAGE 2495 OFF
   CONNECT dbname IDENTIFIED BY ownername
   SET ERROR MESSAGE 2495 ON
   SET MESSAGES ON
   SET ERROR MESSAGES ON
-- Check the availability of database
IF SQLCODE = -7 THEN
   CLS
   PAUSE 2 USING 'Unable to Connect the Database.' +
   CAPTION ' Your Application Caption Here ... ' +
   ICON WARNING +
   BUTTON 'Press any key to continue ... ' +
   OPTION BACK_COLOR WHITE +
   MESSAGE_FONT_NAME Tahoma +
   MESSAGE_FONT_COLOR RED +
   MESSAGE_FONT_SIZE 11
   CLOSEWINDOW
   EXIT
ENDIF
   -- Enforce Database Default Settings
   SET OUOTES='
   SET DELIMIT=','
   SET LINEEND='^'
   SET SEMI=';'
   SET PLUS='+'
   SET SINGLE='_'
   SET MANY='%'
   SET IDQUOTES='`'
   SET CURRENCY '$' PREF 2 B
   SET NULL ' '
   SET DATE FORMAT MM/DD/YYYY
   SET DATE SEQUENCE MMDDYY
   SET DATE YEAR 30
   SET DATE CENTURY 19
   CLS
   EDIT USING ApplicationMainMenu
```

RETURN

-- End here ...

#### 4.4 Customizing the Configuration File

The R:BASE configuration file sets the application environment. It includes commands for setting the temporary scratch directory, the multi-user switch, the name of the workstation, and more. Before you change a user's configuration file, make a backup copy of the file. Check your modifications carefully before saving the file, and test the edited file before you deliver the application to a user.

This section describes the various parts of the configuration file, RBENGINE11.CFG file, and explains how to customize the file for single and multi-user systems. After developing the R:BASE application, it is recommended that you use the same configuration file that was used throughout the development stage so the compiled application will behave exactly as your test environment.

A single-user system is a system where a user does not use the custom application on a network, or uses the custom application on a network but does not share database files with other users on the network. If a user will be sharing R:BASE program files and database files on a network, you must set the multi-user settings for a multi-user system. Multi-user features include the following:

- · Access to database files by more than one user on a network
- Automatic concurrency control and locking
- Access to the following **SET** commands:

FASTLOCK INTERVAL LOCK MULTI NAME QUALCOLS REFRESH ROWLOCKS STATICDB TIMEOUT VERIFY WAIT

The following table describes the settings that have to be set for a single or multi-user system in the configuration file.

Option	Description	Configuration Line Syntax
	Turns R:BASE multi-user off or on. MULTI can be set in the configuration file or in an application.	MULTI OFF, for a single-user system MULTI ON, for a multi-user system
	Names the workstation in a multi-user system.	NAME username

Use the **TMP** parameter for your **SCRATCH** setting, insuring that the temporary files will be loaded on the end user's local temporary directory regardless of the operating system.

You can change the configuration file using the R:BASE Editor, or by using any ASCII text editor. The configuration file contains lines with semicolons as the first character, and lines with startup options. Insert lines beginning with a semicolon (;) to separate the file into sections or add comments. The changes you make will take effect the next time you start R:BASE or the custom application.

#### 4.5 Online Help/Documentation

If you know how to create Windows help systems, you can create your own help system based upon your custom application.

#### 4.6 Setting up the Custom Program

It is common to distribute and store all of the custom program files in the same directory, insuring your application will run correctly if it is ever moved. After compiling the executable, you need to install the database, any other application files, the configuration file, the engine file, and the compiled executable. The most current version of the engine files should be located in your R:Compiler program directory.

Another method to set up a custom program in a network environment is to store all of the custom program files locally and the database on a shared network drive. After compiling the executable, you need to install the application files, the configuration file, the engine file, and the compiled executable on the local computer. The database files alone would be stored on the network directory.

To continue the installation process using the first example above, complete the following tasks.

1. Determine where to create and install the database, compiled executable, and other program files.

**Note**: In a multi-user system, the database files should be located in a shared directory on the network server, not on a local drive.

- 2. Create the program directory.
- 3. Copy the database files, any external application files, and the compiled executable to the custom program directory.

**Note**: For multi-user systems only, provide users with network read, write, and create access rights. For more information about these access rights, refer to the documentation for your network.

- 4. Copy the customized configuration file, RBENGINE11.CFG, to the program directory.
- 5. Copy the engine file, RBENGINE11.DLL, from your R:Compiler program directory to the custom program directory. This is only required if you did NOT <u>embed the engine</u> file within the executable.
- 6. If you use R:BASE Themes, copy the RBThemes11.DLL from your R:BASE program directory to the custom program directory. This is only required if you did NOT <u>add your themes</u> to the executable.
- 7. Include the TabPrint.dll to support the WYSIWYG print module within the Data Browser. Copy the TabPrint.dll from your R:Compiler program directory to the custom program directory. The DLL is no longer embedded in the R:Compiler program to create smaller files and increase startup speeds. If the custom application does not require "Print Data" support within the Data Browser, you can leave the DLL out of the custom program directory.
- 8. If the application uses a form Web Browser control which utilizes MS Edge as the browser engine, rather than Internet Explorer, the following instructions must be followed:
  - a) The <u>WebView2 Runtime</u> must be downloaded and installed. WebView2 Runtime is an Edge installation that is designed for embedding the engine in third party applications (R:BASE). It recommended to download the Evergreen Standalone Installer (x86 installer).
  - b) The WebView2Loader.dll must be copied from R:Compiler program directory to the custom program directory, or placed in a folder that is in the operating system's PATH variable.
- 9. If you use R:BASE Plugins, copy the RBM files from your R:BASE program directory to the custom program directory.
- 10. Copy all other additional portions of the application like Help files, images, etc. to the custom program directory.
- 11. After installing and copying the files to the program directory, store the system disks containing the database, configuration file, engine files, compiled executable, and all other important files in a safe place and/or make the appropriate backups

The following example lists the files for a custom program directory:

- YourCompiledExecutable.EXE
- RBENGINE11.DLL

- Four database files (.RX1-.RX4)RBENGINE11.CFG
- TabPrint.dll

- Other application files that require to be stored externally
  Custom help file(s), if defined for your application
  Images, moving GIFs, etc., if referenced in your PAUSE/DIALOG commands

# Part V

#### 5 Customizing the End User's Computer

#### Setting the Properties of the Desktop Shortcut

Use the following steps to set up the compiled executable desktop icon, so the program automatically runs when the desktop icon is double clicked with the mouse. To create and set up the properties of the desktop shortcut:

- 1. Navigate to the custom program directory, locate and highlight the compiled executable in the directory.
- 2. Right click on the file, choose "Send To..." > "Desktop (create shortcut)".
- 3. Close the window and view the operating system desktop. The shortcut is now displayed.
- 4. Right click on the new desktop shortcut and select "Properties", and view the "Shortcut" tab.
- 5. Verify the "Target:" path and executable which should display the actual path of application directory followed by the compiled executable.
- 6. At the end of the executable name, add a space and then add a hyphen and the letter a: "-a".

The *-a* option tells compiled executable to look in the program directory for the engine and configuration files. Be sure to add the "-a" parameter at the end of the "Target:" field value and separate the two with a space.

- 7. Click the "Apply" button.
- 8. Next, select the "General" tab and edit the top field to match your custom program name.
- 9. Click the "OK" button.

When you double click on the desktop icon, the application should automatically run.

# Part VI

#### 6 Technical Support

Please read over the help documentation at least once before seeking support. We have worked very hard to make the help documentation clear and useful, but concise. It is suggested that you reread these instructions once you have become accustomed to using the software, as new uses will become apparent.

If you have further questions, and cannot find the answers in the documentation, you can obtain information from the below sources:

- Email our Technical Support Staff at: <a href="mailto:support@rbase.com">support@rbase.com</a>
- Access the R:BASE Technologies Support home page online at <a href="https://www.rbase.com/support">https://www.rbase.com/support</a>

You may be required to purchase a technical support plan. Several support plans are available to suit the needs of all users. <u>Available Technical Support Plans</u>

Please be prepared to provide the following:

- The product registration number, which is located on the invoice/order slip for the purchased product
- The type of operating system and hardware in use
- Details regarding your operating environment; such as available memory, disk space, your version
  of R:BASE, local area network, special drivers, related database structures, application files, and
  other files that are used or accessed by your application

All provide information will be used to better assist you.

R:BASE Technologies has a number of different services available for R:BASE products. As a registered user, you will receive information about new features for R:BASE and other R:BASE Technologies products. Please remember to register your software. <u>https://www.rbase.com/register/</u>



#### 7 Useful Resources

. R:BASE Home Page:	https://www.rbase.com
. Up-to-Date R:BASE Updates:	https://www.rbaseupdates.com
. Current Product Details and Documentation:	https://www.rbase.com/rbg11
. Support Home Page:	https://www.rbase.com/support
. Product Registration:	https://www.rbase.com/register
. Official R:BASE Facebook Page:	https://www.facebook.com/rbase
. Sample Applications:	https://www.razzak.com/sampleapplications
. Technical Documents (From the Edge):	https://www.razzak.com/fte
. Education and Training:	https://www.rbase.com/training
. Product News:	https://www.rbase.com/news
. Upcoming Events:	https://www.rbase.com/events
. R:BASE Online Help Manual:	https://www.rbase.com/support/rsyntax
. Form Properties Documentation:	https://www.rbase.com/support/FormProperties.pdf
. R:BASE Beginners Tutorial:	https://www.rbase.com/support/rtutorial
. R:BASE Solutions (Vertical Market Applications):	https://www.rbase.com/products/rbasesolutions



#### 8 Feedback

#### Suggestions and Enhancement Requests:

From time to time, everyone comes up with an idea for something they'd like a software product to do differently.

If you come across an idea that you think might make a nice enhancement, your input is always welcome.

Please submit your suggestion and/or enhancement request to the R:BASE Developers' Corner Crew (R:DCC) and describe what you think might make an ideal enhancement. In R:BASE, the R:DCC Client is fully integrated to communicate with the R:BASE development team. From the main menu bar, choose "Help" > "R:DCC Client". If you do not have a login profile, select "New User" to create one.

If you have a sample you wish to provide, have the files prepared within a zip archive prior to initiating the request. You will be prompted to upload any attachments during the submission process.

Unless additional information is needed, you will not receive a direct response. You can periodically check the status of your submitted enhancement request.

If you are experiencing any difficulties with the R:DCC Client, please send an e-mail to rdcc@rbase.com.

#### **Reporting Bugs:**

If you experience something you think might be a bug, please report it to the R:BASE Developers' Corner Crew. In R:BASE, the R:DCC Client is fully integrated to communicate with the R:BASE development team. From the main menu bar, choose "Help" > "R:DCC Client". If you do not have a login profile, select "New User" to create one.

You will need to describe:

- What you did, what happened, and what you expected to happen
- The product version and build
- Any error message displayed
- The operating system in use
- Anything else you think might be relevant

If you have a sample you wish to provide, have the files prepared within a zip archive prior to initiating the bug report. You will be prompted to upload any attachments during the submission process.

Unless additional information is needed, you will not receive a direct response. You can periodically check the status of your submitted bug.

If you are experiencing any difficulties with the R:DCC Client, please send an e-mail to rdcc@rbase.com.

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