

R:Documenter 11



Help Manual



R:Documenter 11

Manual

by R:BASE Technologies, Inc.

Welcome to R:Documenter 11!

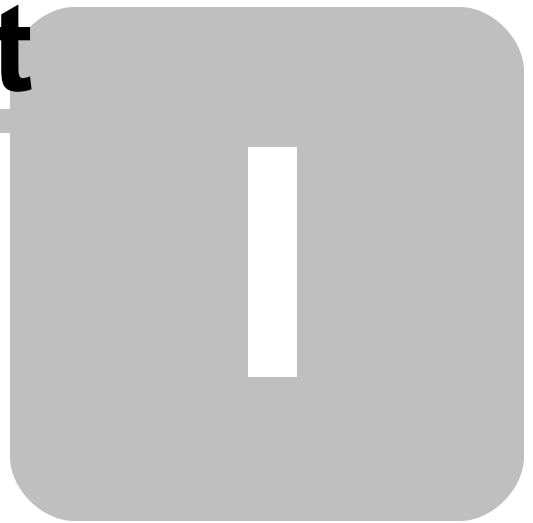
R:Documenter is an R:BASE Plugin used for creating detailed documentation for R:BASE databases.

Table of Contents

| | |
|-------------------------------------|-----------|
| Part I Introduction | 5 |
| 1 Introducing R:Documenter 11 | 6 |
| 2 Copyrights | 6 |
| 3 License | 7 |
| 4 Complimentary Support | 10 |
| Part II Installation | 12 |
| 1 System Requirements | 13 |
| 2 Things You Will Need | 13 |
| 3 Software Installation | 14 |
| 4 Plugin Activation | 14 |
| R:BASE | 14 |
| R:Compiler for R:BASE | 16 |
| Runtime for R:BASE | 17 |
| Part III Uninstall | 18 |
| Part IV Using R:Documenter | 20 |
| 1 General | 22 |
| 2 System Tables | 23 |
| 3 Tables | 25 |
| 4 Views | 28 |
| 5 ODBC Server Tables | 30 |
| 6 Attached DBF Tables | 32 |
| 7 Stored Procedures | 34 |
| 8 Forms | 36 |
| 9 Reports | 38 |
| 10 Labels | 40 |
| 11 Primary Keys | 42 |
| 12 Unique Keys | 44 |
| 13 Foreign Keys | 46 |
| 14 Indexes | 48 |
| 15 Triggers | 50 |
| 16 Print Report Output | 51 |
| Part V Examples | 52 |
| 1 Example 01 | 53 |

| | |
|----------------------------------|-----------|
| 2 Example 02 | 53 |
| 3 Example 03 | 53 |
| Part VI Technical Support | 55 |
| Part VII Useful Resources | 57 |
| Part VIII Feedback | 59 |
| Index | 61 |

Part



1 Introduction

1.1 Introducing R:Documenter 11

R:Documenter is an R:BASE Plugin used for creating documentation for R:BASE databases.

R:Documenter supports options to create documentation output for database system tables, tables, views, ODBC server tables, attached dBase tables, stored procedures, forms, reports, labels, primary keys, foreign keys, unique keys, indexes and triggers.

R:Documenter will create a separate report for each portion of the database, with 14 different output options.

1.2 Copyrights

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

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

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

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

Trademarks

R:BASE®, Oterro®, RBAAdmin®, R:Scope®, R:Mail®, R:Charts®, R:Spell Checker®, R:Docs®, R:BASE Editor®, R:BASE Plugin Power Pack®, R:Style®, RBZip®, R:Mail Editor®, R:BASE Dependency Viewer®, R:Archive®, R:Chat®, R:PDF Form Filler®, R:FTPClient®, R:SFTPCClient®, R:PDFWorks®, R:Magellan®, R:WEB Reports®, R:WEB Gateway®, R:PDFMerge®, R:PDFSearch®, R:Documenter®, RBInstaller®, RBUpdater®, R:AmazonS3®, R:GAP®, R:Mail Viewer®, R:Capture®, R:Synchronizer®, R:Biometric®, R:CAD Viewer®, R:DXF®, R:Twain2PDF®, R:Tango®, R:Scheduler®, R:Scribbler®, R:SmartSig®, R:OutLink®, R:HASH®, R:JobTrack®, R:TimeTrack®, R:Manufacturing®, R:GeoCoder®, R:Code®, R:Fax®, R:QBDataDirect®, R:QBSynchronizer®, R:QBDBExtractor®, and Pocket R:BASE® are trademarks or registered trademarks of R:BASE Technologies, Inc. All Rights Reserved. All other brand, product names, company names and logos are trademarks or registered trademarks of their respective companies.

Windows, Windows 11-10, Windows Server 2022-2012, Bing Maps, Word, Excel, Access, SQL Server, and Outlook are registered trademarks of Microsoft Corporation. OpenOffice is a registered trademark of the Apache Software Foundation.

Printed: July 2024 in Murrysville, PA

First Edition

1.3 License

R:BASE TECHNOLOGIES, INC. LICENSE AGREEMENT

R:Documenter 11 Single Seat License

This is a legal agreement between you, the end user ("**Licensee**"), and R:BASE Technologies, Inc. ("**RBTI**"). Please read the terms and conditions of this License Agreement before using this software. By you selecting "I accept the license agreement" and clicking "Next" during product installation means you expressly accept the terms and conditions of this Agreement. If you do not accept the terms and conditions of this Agreement, you must stop installing the Product and click "Cancel". Your money will be refunded based upon proof of purchase, and in compliance with the return period described in the LIMITED WARRANTY below. A violation of the License, brings damage both financially and to the reputation of RBTI, and in the occurrence of either, both termination of the license agreement and civil damages will be vigorously sought. Once you have clicked "I accept the license agreement", you are entitled to use the Product under the following terms and conditions of this Agreement:

LICENSE

This RBTI License Agreement permits you to use one copy of the R:Documenter computer software with associated utilities (the "**Program**") and accompanying user documentation (the "**Documentation**") on any single computer. If you do not have a Site License or at least one 5 Seat Add-On License, this program can only be installed on a single machine. However, you can open multiple sessions and be connected to the same and/or other local or network databases on the same machine simultaneously. (The 5 Seat Add-On License permits additional seats to access the Program, in 5 seat increments if each is physically linked to a single file server and you have obtained a separate license for a Single Seat version of the Program. 5 Seat Add-On Licenses must be licensed at the same Single Seat version). A Program is "being used" on a computer when it is loaded into a temporary memory or installed on a hard drive in the computer. However, a copy of the Program installed on a network server for the sole purpose of distribution to other computers is not "being used". Each seat having access to the Program must have an appropriate license. If you anticipate that the number of seats with access to the Program will exceed the number of seats for which you are licensed, you must take steps to ensure that the appropriate licenses are obtained for each seat.

5 SEAT ADD-ON AND SITE LICENSES

If a printed or other form of "hard-copy" License accompanied the copy of the Program you received whose terms vary from this agreement, then the hard-copy License governs your use of the Program. 5 Seat Add-On and Site Licenses allow you to install the Program on the total number of machines for which you are licensed only.

SATELLITE LICENSES

A Satellite License permits a Licensee to use one copy of the copy of the Program on any additional single computer, for additional development to accompany an existing Single Seat License. The Satellite License must be licensed to the same user as the existing Single Seat License. Each seat having access to the Program must have an appropriate license.

COPYRIGHT AND RESTRICTIONS

RBTI retains full ownership rights in the Program and Documentation. You may make a single copy of the Program; to be used solely for backup or archival purposes, or you may transfer the Program onto a single hard disk provided you keep the original solely for backup or archival purposes. Such copies shall be owned by RBTI. You may not copy any printed material or Documentation without prior permission. You may not decompile, disassemble cross-compile, reverse engineer, or make or distribute any other form of, or derivative work from, the Program. You may not obscure, alter or remove any RBTI copyright, trademark or proprietary rights notices.

TRANSFER OF LICENSE

You may not lend, rent or lease the Program or Documentation or any copies to any person. A transfer of license is only authorized through completion of the Consent to Assignment and Assumption of Contract agreement from RBTI. Upon license transfer, you are permanently giving such person possession of all copies of the Program and Documentation, are permanently giving up your right to use the Program and Documentation, and the recipient agrees to the terms of this License Agreement.

STEP UPS AND UPGRADE PURCHASES

As the Licensee, you are authorized to use the Program only if you are an authorized user of a qualifying product as determined by RBTI. The new license agreement takes the place of the agreement of the qualifying software you stepped up or upgraded from. After you upgrade, you may no longer use the software from which you upgraded. When you install the upgrade, you must uninstall the copy of the qualifying product.

TERM OF LICENSE

The licensing provided in this License Agreement is perpetual unless you violate any of its terms or conditions, at which time the license will automatically terminate. Upon termination you must return all copies of the Program and Documentation to RBTI or certify in writing to RBTI that all such copies have been destroyed and uninstalled from each workstation and/or network server. RBTI reserves the right to, at its expense and without prior notice, conduct periodic inspections for licensing compliancy. If licensee is found to be in violation of current agreement, RBTI may commence a civil action seeking fines, damages, attorney's fees and injunctive relief and may also, in appropriate circumstances, seek criminal prosecution.

ACTIVATION CODES

The Program requires activation using a unique code. If you purchase a Single Seat License with or without 5 Seat Add-On Licenses, you agree to comply with the license activation and verification procedure described in this section of the Agreement. The activation technology may prevent your use of the Program if you do not follow the activation process described in this Agreement.

Each activation code is tied to one Windows operating system computer. A dual-boot computer with multiple operating systems cannot activate a Single Seat License on more than one operating system. Any software utilities which alter how the Program is installed on a local drive are not supported. This includes any utilities which alter, remove or transfer the location of the Program on the hard drive, or any hard drive utilities which alter the physical properties of the local drive.

The Program activation can be completed automatically through an Internet connection or manually through a provided email option. In doing so, the Program Registration Number and Computer ID must be provided. License validation allows a number of activations based upon the number of licenses purchased.

If a computer is no longer using the Program, through license transfer or hardware failure, the Activation Key that was used on the computer must be submitted to R:BASE Technologies so the key may be disabled, which will then free up that used activation. Once a key is reported 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:BASE. To review the License Key and Activation Key product information, select "Help" > "Product Activation" from the Menu Bar.

Licenses for the Corporate VIP Licenses of the Program are not controlled by activation codes and can be operated from computers that are not connected to the Internet.

SOFTWARE SUPPORT

The availability of software support services is subject to the End of Support (EOS) and End of Life (EOL) product life cycle, and to an active Software Assurance Plan. Where applicable, licensees will be provided with an option to upgrade to the current supported version of a software product.

LIMITED WARRANTY

RBTI warrants to you, as the initial user, the Program will perform substantially in accordance with the Documentation, provided it is used in unaltered form with functioning equipment and operating systems for which it was designed. RBTI will, at its option, with proof of payment within 30 days of the invoice date and after the Program with Documentation has been deactivated and uninstalled, and software installer, whether provided by download or other means, permanently deleted from all drives and folders, issue a full refund. These are your sole remedies for any breach of warranty. No exceptions will be made.

SERVICES PROVIDED WITH PURCHASE**1. 30-Day Limited Complimentary Technical Support**

LICENSEE RESPONSIBILITIES

- To help us expedite the process and provide high quality assistance, the licensee must provide proof of purchase when calling. Proof of purchase is defined as the following: registration number, purchase date, version and build number, and company or individual to which product is registered.
- To have operating system, workstations, and local network installed and functional. RBTI will NOT be responsible for resolving issues not pertaining to the Program.
- Our support staff deals with advanced issues, therefore the person contacting RBTI for assistance should be the system administrator or have other R:BASE/SQL experience and be able to understand and implement the advice given.
- To have the database(s) being converted, safely backed-up before attempting conversion process. RBTI will NOT be held responsible for lost data or corruption as a result of advice given.

R:BASE TECHNOLOGIES, INC. RESPONSIBILITIES

- To provide quality assistance in a timely manner to aid Licensee in the installation of the product within 30 days of the date of purchase.
- To provide a reasonable solution for any resolvable issue. Not all issues are resolvable, and therefore we will acknowledge the existence of known issues or "bugs" which we are presently aware of, that have no reasonable work-around.

RBTI 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 from 10am. to 6pm. Eastern Time.

For assistance on your APPLICATIONS, DESIGN, or ADVANCED CONVERSION issues, we offer Technical Support Plans of various types to meet your needs. Please visit the SUPPORT area of our website at www.rbase.com for details and pricing.

2. Fixes for Known Issues

RBTI will provide continued product fixes for known issues or "bugs" for 1 YEAR from the software purchase date. After 1 year, users are urged to acquire the necessary Software Assurance Plan to continue with product support and ongoing activations for reinstallations and license transfers.

3. Enhancement Requests

RBTI will provide continued product enhancements for requested features for 1 YEAR from the software purchase date. After 1 year, users are urged to acquire the necessary Software Assurance Plan to continue with product support and ongoing activations for reinstallations and license transfers.

4. Periodic Activations

RBTI will provide periodic product activations of license transfers and/or reinstallations for 1 YEAR from the R:BASE purchase date. Any activation requests that occur beyond the 1 Year purchase date will require an active Software Assurance Plan.

NO OTHER WARRANTIES

Except as explicitly stated above, RBTI makes no express or implied warranties (including any warranties of merchantability or fitness) with respect to the character, function, or capabilities of the program, the documentation or their appropriateness for any user's purposes. RBTI cannot customize product(s) to meet specific needs in all cases. Examples of customization include, but are not limited to: special character sets, foreign language adaptations, specific device drivers or other localization issues. Under no circumstances will RBTI be held responsible for product functionality once alterations have been made to accommodate individual needs.

DISCLAIMER OF WARRANTY

The Program and the accompanying files are sold "as is" and without warranties as to performance or merchantability or any other warranties whether expressed or implied. Because of the various hardware and software environments into which the Program may be put, No warranty of fitness for a particular purpose is offered. Good data processing procedure dictates that any program be thoroughly tested with non-critical data before relying on it. The user must assume the entire risk of using the Program. Any liability of the seller will be limited exclusively to product replacement or refund of purchase price.

HIGH RISK ACTIVITIES

The Program is not fault-tolerant and is not designed, manufactured or intended for use or resale as on-line control equipment in hazardous environments requiring fail-safe performance, such as in the operation of nuclear facilities, air traffic control, aircraft navigation or communication systems, direct life support machines, or weapons systems, in which the failure of the Program could lead directly to death, personal injury, or severe physical or environmental damage ("High Risk Activities"). RBTI specifically disclaims any expression or implied warranty of fitness for High Risk Activities.

LIMITATIONS ON LIABILITIES

RBTI will not be responsible for any costs or damages associated with loss of the use of the Program or any other resources, loss of business or profits, any loss of data, any third-party claims or costs of substitute programs. In no event will RBTI be liable for any incidental, indirect, special, consequential or punitive damages suffered by the user or any other person or entity, whether from the use of the program or documentation, any failure thereof, or otherwise, even if RBTI or its dealers or agents are aware of the possibility of such damages. In no event will RBTI aggregate liability to you or anyone else exceed two times the license fee you paid for the program and documentation in this package. Because some states do not allow the limitation or exclusion of implied warranties and liabilities for consequential or incidental damages, the above limitations may not apply to you.

GENERAL

This License Agreement constitutes the full and complete agreement between parties. RBTI retains all rights not specifically granted herein. RBTI shall not be deemed to have waived any of its rights hereunder or under all copyright laws, trade secrecy laws or otherwise. This Agreement is intended as a legally binding agreement which will be enforced to the full extent permitted under applicable law, in whole or in part. If any one provision of this Agreement is declared invalid or unenforceable, all remaining provisions shall never less remain in effect. The laws of the state of Pennsylvania shall govern this Agreement. RBTI reserves the right to amend, alter, or revoke this agreement at any time. All revisions to this license agreement are available for inspection upon request, supersede conditions in all past agreements, and render prior license agreements void and unenforceable. Both parties named in this license will only be bound to the terms of the most current revision of this agreement.

U.S. GOVERNMENT RESTRICTED RIGHTS

Use, duplication or disclosure by the Government, its agents or employees is subject to all restrictions imposed by law, regulation or government directive, including but not limited to those restrictions set forth in DFARS 252.227-7013 and 48CFR 52.227-19, as applicable.

R:BASE Technologies, Inc.
<https://www.rbase.com>
rbaseinfo@rbase.com

Copyright 1982-2024 R:BASE Technologies, Inc.
All Rights Reserved
Revised Monday, July 22, 2024

1.4 Complimentary Support

30 DAY LIMITED COMPLIMENTARY TECHNICAL SUPPORT

A. LICENSEE RESPONSIBILITIES.

1. To help us expedite the process and provide high quality assistance, the licensee must provide proof of purchase. Proof of purchase is defined as the following: registration number, purchase date, version and build number, and company or individual to which product is registered.
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.

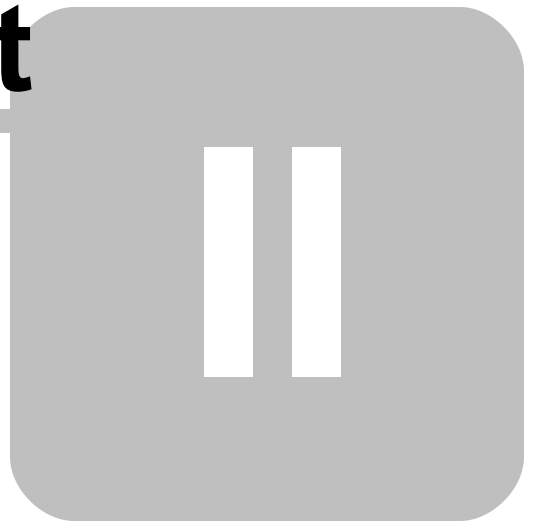
B. R:BASE TECHNOLOGIES, INC. RESPONSIBILITIES.

1. To provide quality assistance in a timely manner to aid in the installation of the product and elementary conversion of database, application, and command files within 30 days of the date of purchase.
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 <https://www.rbase.com/support> for details and pricing.

Part



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 support@rbase.com.

- 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 activationkey@rbase.com. 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:Documenter 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, and read the installer screens for licensing and other information as the program installs.

Installation Directory

C:\RBTI\RDocumenter11

Files Installed

RDocumenter11.rbm
RDocumenter11.chm
RDocumenter11.pdf
License.rtf
ReadMe.txt

Requirements:

Plugin

The R:Documenter 11 Plugin file (RDocumenter11.rbm) must be placed in the R:BASE 11 program directory (default: C:\RBTI\RBG11) or the runtime/compiled application directory.

2.4 Plugin Activation

R:BASE Plugins can be used to enhance, or extend R:BASE operations. Current R:BASE Plugins use the .RBM file extension.

To begin using any plugin product, the plugin must be registered for use.

The license type for R:BASE and R:BASE plugin products must match. The license keys supplied with Single Seat and 5 Seat plugin products will only be accepted within Single Seat and 5 Seat versions of R:BASE, and are not accepted within R:Compiler for R:BASE or Runtime for R:BASE programs. The same license structure is also in place for Runtime License Keys for plugin products, where the key will not be accepted within Single Seat and 5 Seat Licenses R:BASE.

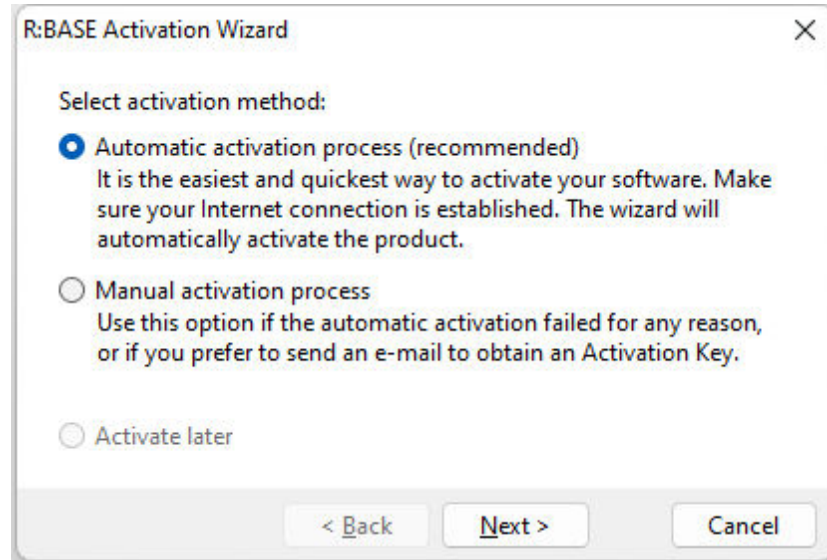
2.4.1 R:BASE

To begin using a plugin product, you must register the software within R:BASE by selecting "Help" > "Product Activation" from the main Menu Bar. In this window, select the "Add New" button where you can enter or copy and paste the License Key you received with your product.

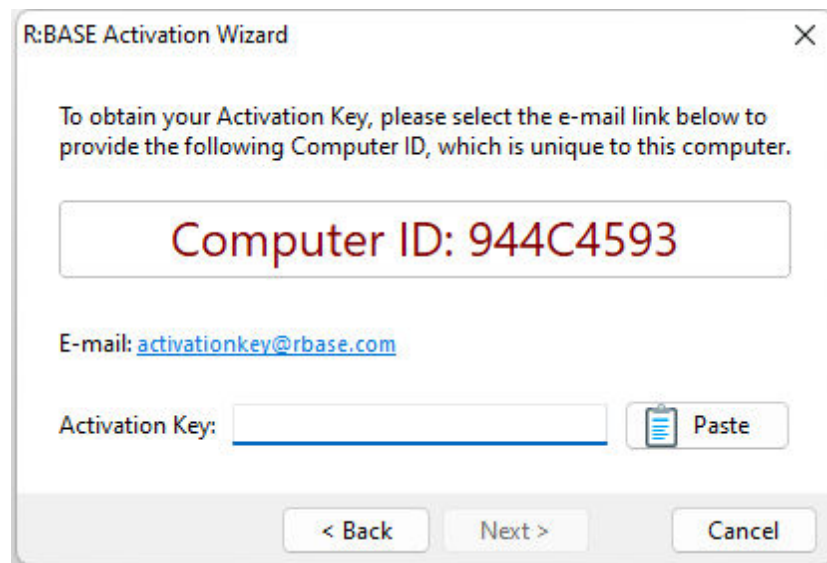
Only "Per Seat" License Keys are valid for this entry screen. All "Runtime" License Keys must be registered within R:Compiler for R:BASE or within Runtime for R:BASE separately.

A screenshot of a "License Information" dialog box. The dialog has a title bar with a close button (X). Inside, the text "Enter License Key:" is followed by a series of eight empty text boxes separated by hyphens. At the bottom, there are three buttons: "Paste" (with a clipboard icon), "OK" (with a green checkmark icon), and "Cancel" (with a red X icon).

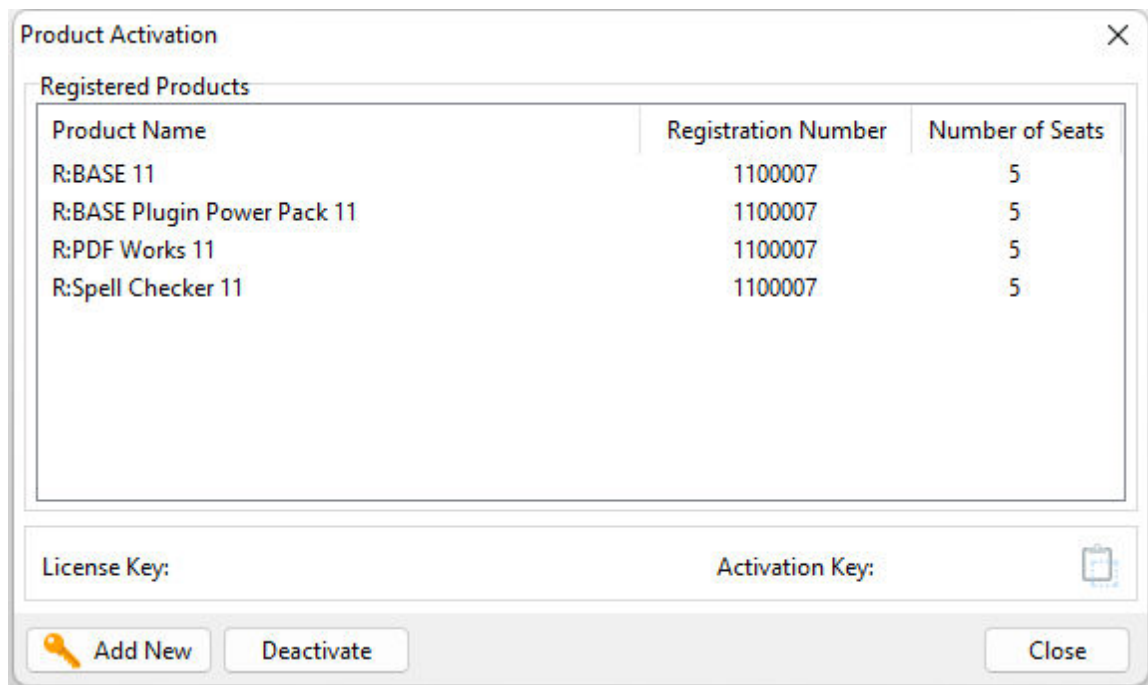
After entering the License Key, you will see a dialog to prompt for your activation method. The software can be activated automatically over the Internet, or manually by retrieving an Activation Key from R:BASE Technologies by email or over the phone. If you select "Later", you will be reminded each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



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



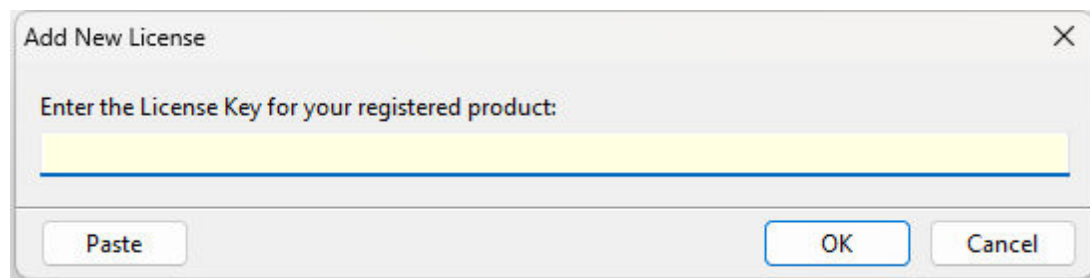
Please be advised that if you are activating multiple workstations, it is highly recommended that you keep records of the computer name, Computer ID and Activation Key for future reference. Access to this information will prove convenient in the event of a hardware failure or license transfer when uninstalling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

Please see: [Uninstall/Reinstall](#)

2.4.2 R:Compiler for R:BASE

Runtime License Key

Runtime license keys for an R:BASE Plugin must be stored within the compiled executable. A specific Runtime License Key would be provided after your purchase of the Runtime software product. 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.

Plugin File (.RBM)

R:BASE Plugin files can be added and stored within the compiled executable or included within the R:BASE application directory. The Runtime license key pertaining to the R:BASE Plugin must be stored in the compiled 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.

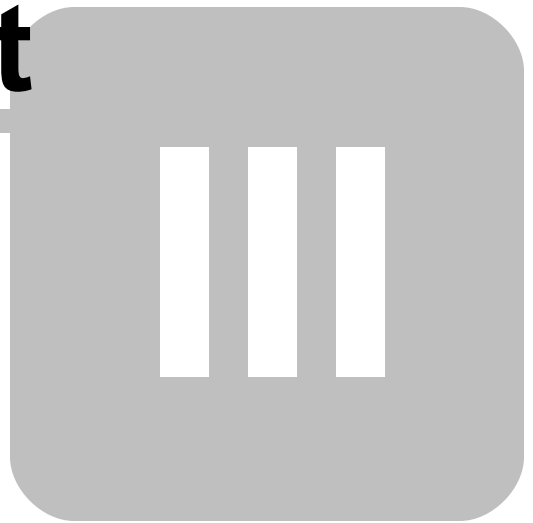
2.4.3 Runtime for R:BASE

After R:BASE Plugins are acquired for Runtime for R:BASE applications, the Plugin file must be included in the Runtime application folder, to be loaded when the Runtime application launches.

To load the Plugin, the License Key must be included into the Runtime for R:BASE session by adding the following PROPERTY command within the application startup file:

```
PROPERTY ADD_LICENSE #####-#####-#####-#####-#####-#####-#####-##### ' '
```

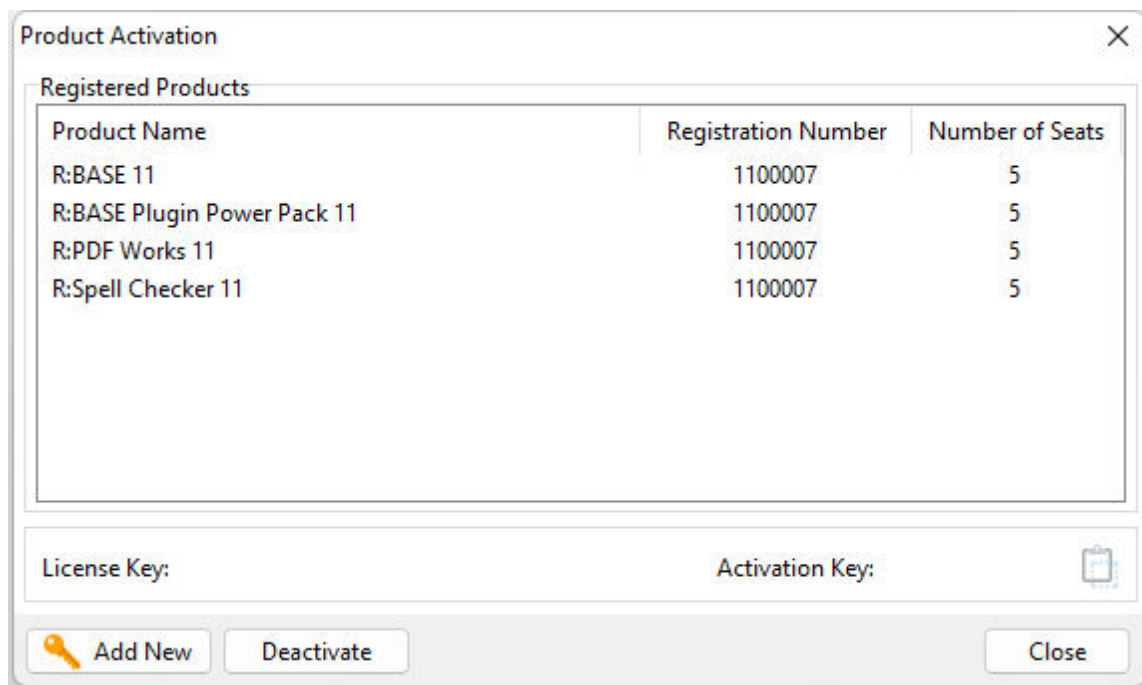
Part



3 Uninstall

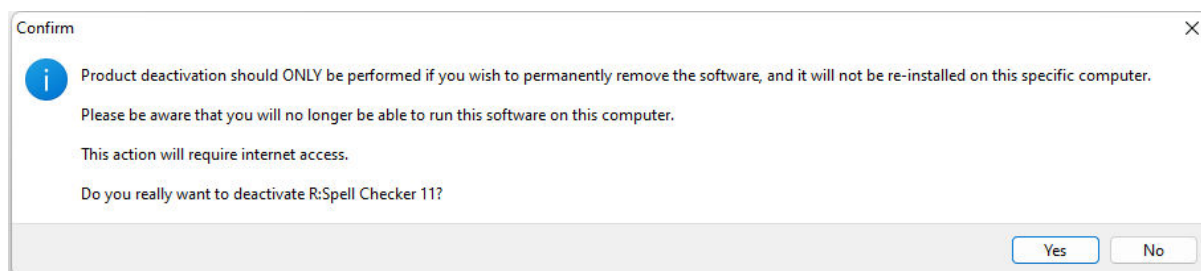
If a computer is no longer using R:Documenter, through license transfer or hardware failure, the Activation Key that was used on that computer must be submitted to R:BASE Technologies so we can then remove the Activation Key from our log. We will disable the Key, which will then free up that used activation. 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: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.



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.



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

Part

IV

4 Using R:Documenter

R:Documenter can be launched from within R:BASE by selecting "Utilities" > "Plugins" > "R:Documenter" from the main menu bar. The R:BASE session must be connected to a database for the menu option to be available. R:Documenter can also be launched use the following command syntax:

Syntax:

```
PLUGIN RDocumenter vResult|Parameters
```

Parameters:

DBNAME - specifies the database to connect. The value of this parameter is passed to a CONNECT statement, where all CONNECT command options can be used, (i.e. IDENTIFIED BY...).

OBJECT - specifies the types of reports to be generated. Valid values are SYSTABLE, TABLE, VIEW, SRVTABLE, DBF, SP, TRIGGER, FORM, REPORT, LABEL, PK, UNIQUE, FK, INDEX. Empty means print all. Multiple values can be specified-- separated by comma

FORMAT - specifies the output format. Valid values are PRINTER, PDF, BMP, EMF, XLS, GIF, HTML, JPG, ETXT, RTF, TXT, TIFF, XHTML, WMF. Default is PDF

PROGRESS - specifies to show/hide the progress dialog. Valid values are ON or OFF. Any value other than ON will set this to OFF

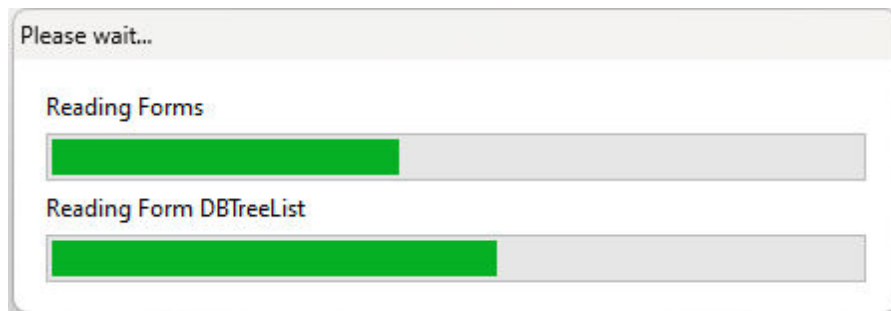
GUI - specifies to show/hide the main R:Documenter dialog. Valid values are ON or OFF. Any value other than ON will set this to OFF

DESTINATION - specifies destination folder for the output

Note:

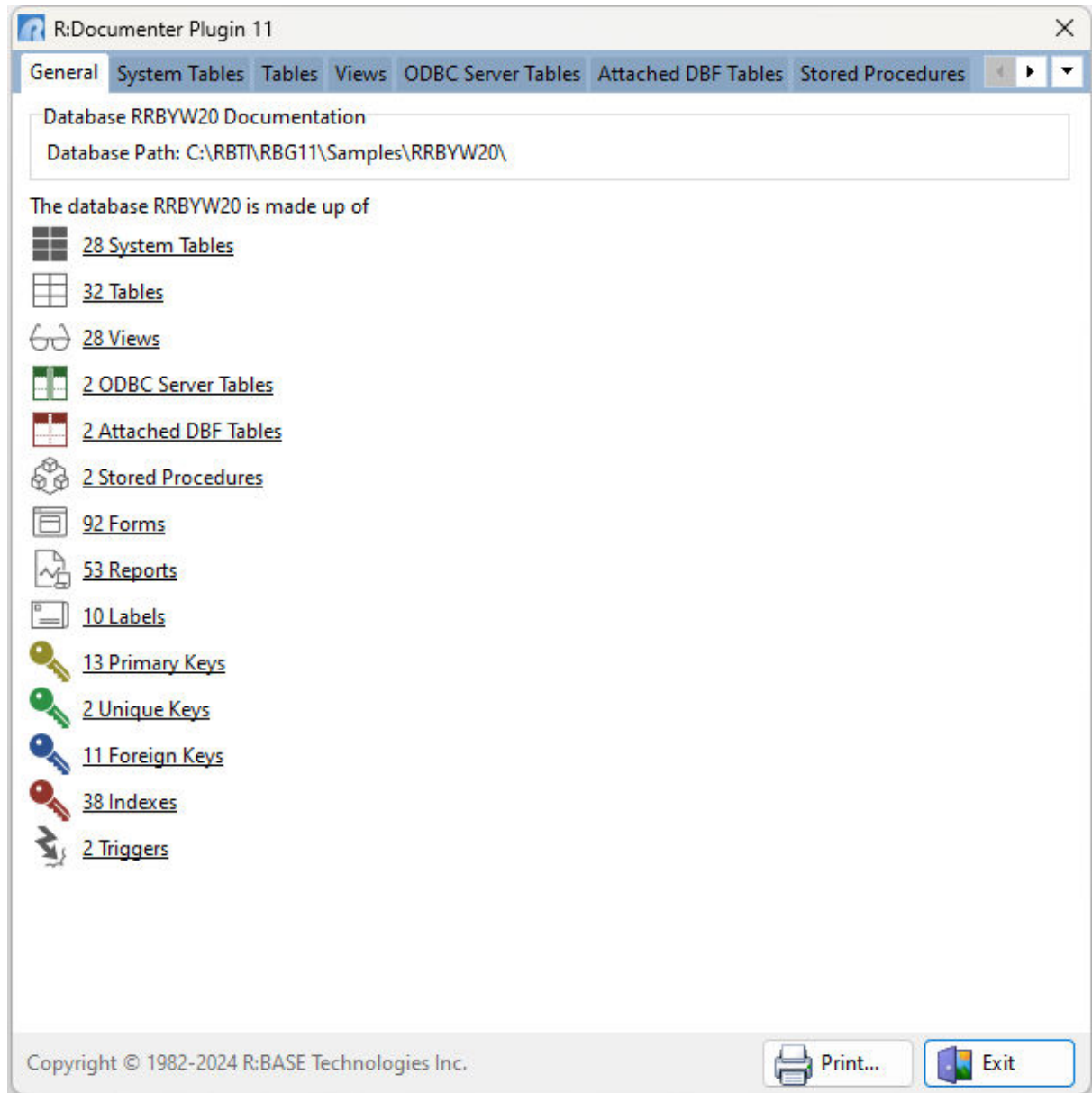
- Returned variable name and parameters must be separated by a "|" pipe symbol.

When launched, the R:Documenter will automatically begin reading the database structure.



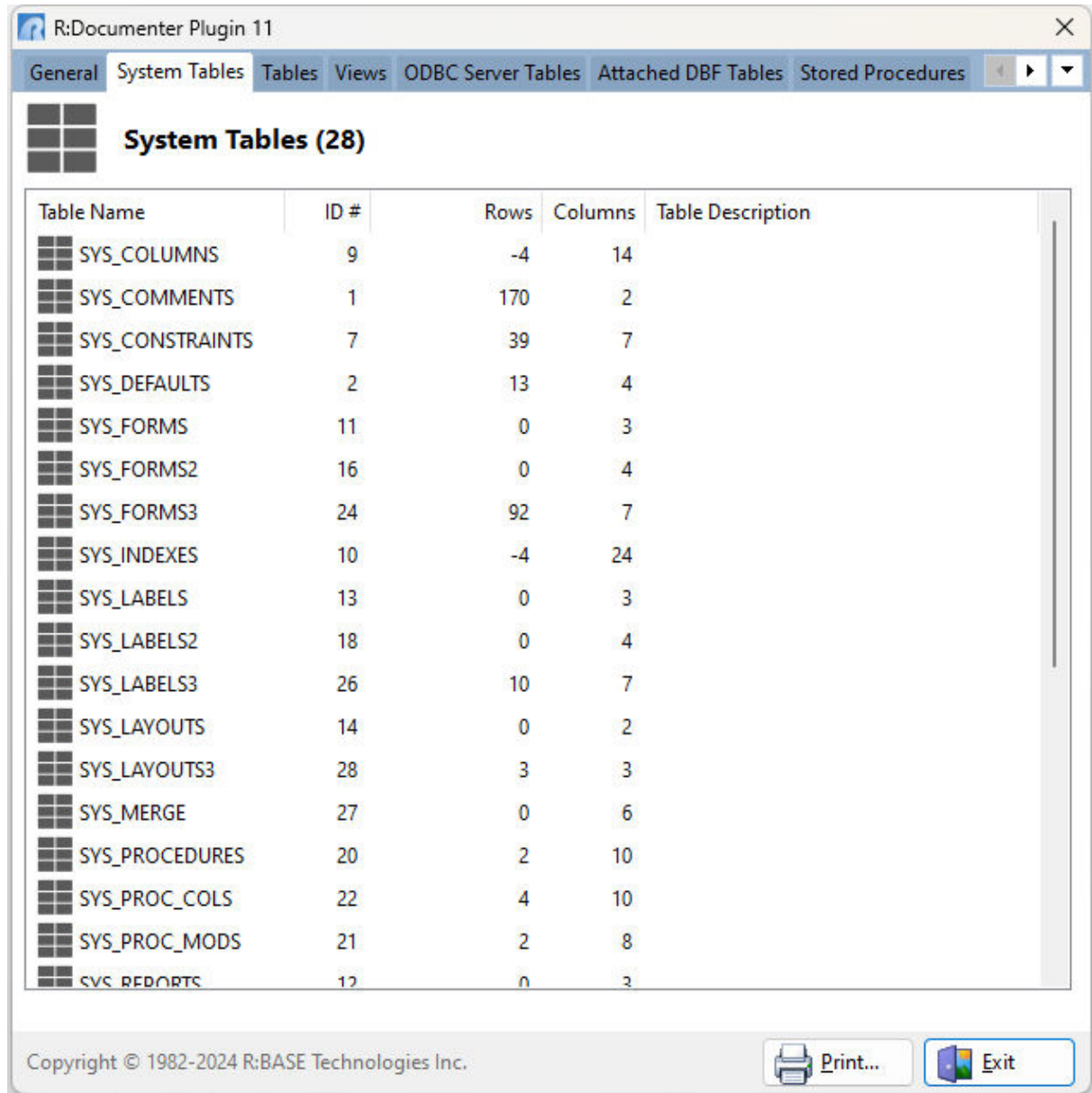
4.1 General

The "General" tab in the R:Documenter window will display the connected database name and path across the top of the page. The middle of the window will display exactly what the database is made of starting with System Tables all the way down to Triggers. Next to each item that comprises the database, the number of each are displayed as well.



4.2 System Tables

The "System Tables" tab will display the list of System Tables for the database along with the ID#, number of rows, number of columns, and table description.

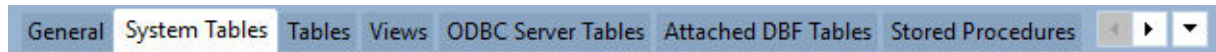


| Table Name | ID # | Rows | Columns | Table Description |
|-----------------|------|------|---------|-------------------|
| SYS_COLUMNS | 9 | -4 | 14 | |
| SYS_COMMENTS | 1 | 170 | 2 | |
| SYS_CONSTRAINTS | 7 | 39 | 7 | |
| SYS_DEFAULTS | 2 | 13 | 4 | |
| SYS_FORMS | 11 | 0 | 3 | |
| SYS_FORMS2 | 16 | 0 | 4 | |
| SYS_FORMS3 | 24 | 92 | 7 | |
| SYS_INDEXES | 10 | -4 | 24 | |
| SYS_LABELS | 13 | 0 | 3 | |
| SYS_LABELS2 | 18 | 0 | 4 | |
| SYS_LABELS3 | 26 | 10 | 7 | |
| SYS_LAYOUTS | 14 | 0 | 2 | |
| SYS_LAYOUTS3 | 28 | 3 | 3 | |
| SYS_MERGE | 27 | 0 | 6 | |
| SYS_PROCEDURES | 20 | 2 | 10 | |
| SYS_PROC_COLS | 22 | 4 | 10 | |
| SYS_PROC_MODS | 21 | 2 | 8 | |
| SYS_REPORTS | 12 | 0 | 3 | |

Copyright © 1982-2024 R:BASE Technologies Inc.

Print... Exit

Any System Table can be selected for information displaying the column names, ID#, and data type for the column.



System Tables (28)

System Table SYS_FORMS3

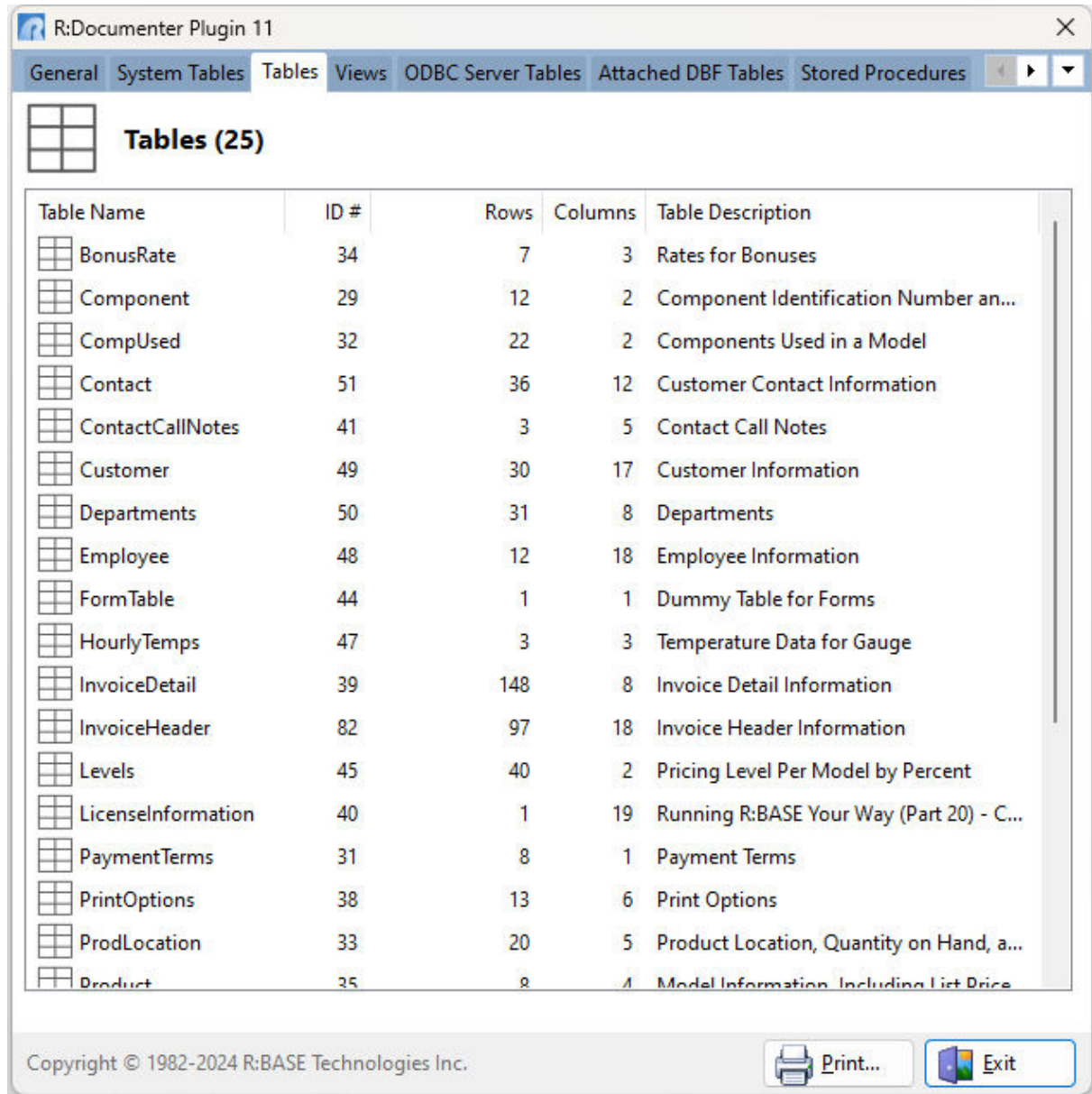
[Back to Table List](#)

Columns(7):

| Column Name | ID # | Data Type |
|------------------|------|-----------|
| SYS_FORM_NAME | 157 | TEXT(128) |
| SYS_TABLE_NAME | 158 | TEXT(128) |
| SYS_COMMENT | 159 | NOTE(0) |
| SYS_DATA | 160 | VARBIT |
| SYS_TABLES_DEF | 161 | VARBIT |
| SYS_FORM_MOD_TS | 162 | DATETIME |
| SYS_FORM_VERSION | 163 | INTEGER |

4.3 Tables

The "Tables" tab will display the list of Tables for the database along with the ID#, number of rows, number of columns, and table description.



Tables (25)

| Table Name | ID # | Rows | Columns | Table Description |
|--------------------|------|------|---------|--|
| BonusRate | 34 | 7 | 3 | Rates for Bonuses |
| Component | 29 | 12 | 2 | Component Identification Number an... |
| CompUsed | 32 | 22 | 2 | Components Used in a Model |
| Contact | 51 | 36 | 12 | Customer Contact Information |
| ContactCallNotes | 41 | 3 | 5 | Contact Call Notes |
| Customer | 49 | 30 | 17 | Customer Information |
| Departments | 50 | 31 | 8 | Departments |
| Employee | 48 | 12 | 18 | Employee Information |
| FormTable | 44 | 1 | 1 | Dummy Table for Forms |
| HourlyTemps | 47 | 3 | 3 | Temperature Data for Gauge |
| InvoiceDetail | 39 | 148 | 8 | Invoice Detail Information |
| InvoiceHeader | 82 | 97 | 18 | Invoice Header Information |
| Levels | 45 | 40 | 2 | Pricing Level Per Model by Percent |
| LicenseInformation | 40 | 1 | 19 | Running R:BASE Your Way (Part 20) - C... |
| PaymentTerms | 31 | 8 | 1 | Payment Terms |
| PrintOptions | 38 | 13 | 6 | Print Options |
| ProdLocation | 33 | 20 | 5 | Product Location, Quantity on Hand, a... |
| Product | 35 | 8 | 4 | Model Information, Including List Price |

Copyright © 1982-2024 R:BASE Technologies Inc.

Print... Exit

Any table can be selected for information displaying the column names, ID#, data type, description and default value for the column.

General
System Tables
Tables
Views
ODBC Server Tables
Attached DBF Tables
Stored Procedures



Tables (25)

Table Customer
[Back to Table List](#)

Columns(17):

| Column Name | ID # | Data Type | Column Description | Default |
|-------------|------|----------------------------|---------------------------|---------|
| CustID | 299 | INTEGER AUTONUM next = 137 | Customer Identificatio... | |
| Company | 300 | TEXT(40) | Customer Company N... | |

Primary Key Column:

| # | Column Name | PK Min Value | PK Max Value | Constraint Name |
|---|-------------|--------------|--------------|-----------------|
| 1 | CustID | 101 | 130 | #39 |

Custom Messages

On attempt to duplicate PK column(s)
The customer id number must be unique for this table.

On attempt to delete PK row referenced by another table:
This customer id number is being referenced in another table

On attempt to change PK value referenced by another table:
This value is being reference in another table.

The PK is referenced by the following Foreign Key:

| FK Table Name | FK Column Name | Constraint Name |
|---------------|----------------|-----------------|
| Contact | CustID | #54 |

Further down the window displayed primary keys defined for the table and the custom messages for the constraint. At the bottom, the foreign keys are listed with their referenced table and column and all indexes are listed with the index name, column, NULL value, unique setting, length, order direction, duplicate factor, adjacency factor, and the type of index it is (ie. Primary Key = PK, Foreign Key = FK, Unique Key = UK, etc.).

General
System Tables
Tables
Views
ODBC Server Tables
Attached DBF Tables
Stored Procedures



Tables (25)

Table Customer
[Back to Table List](#)

Foreign Key:

| FK Column | FK Name | Ref'd Table | Message on Illegal Ins... | Message on Illegal ... |
|-----------|---------|-------------|---------------------------|------------------------|
| | | | | |

Indexes(2):

| Index Name | Column | Nulls | Unique | Length | Dir | Dup. | Adj. | Type |
|------------|-----------|----------|--------|--------|-----|----------|------|------|
| #39 | CustID | NOT N... | Yes | 255 | ASC | 1 | 1 | PK |
| CustState | CustState | Null OK | No | 255 | ASC | 2.142857 | 1 | I |

Rule:

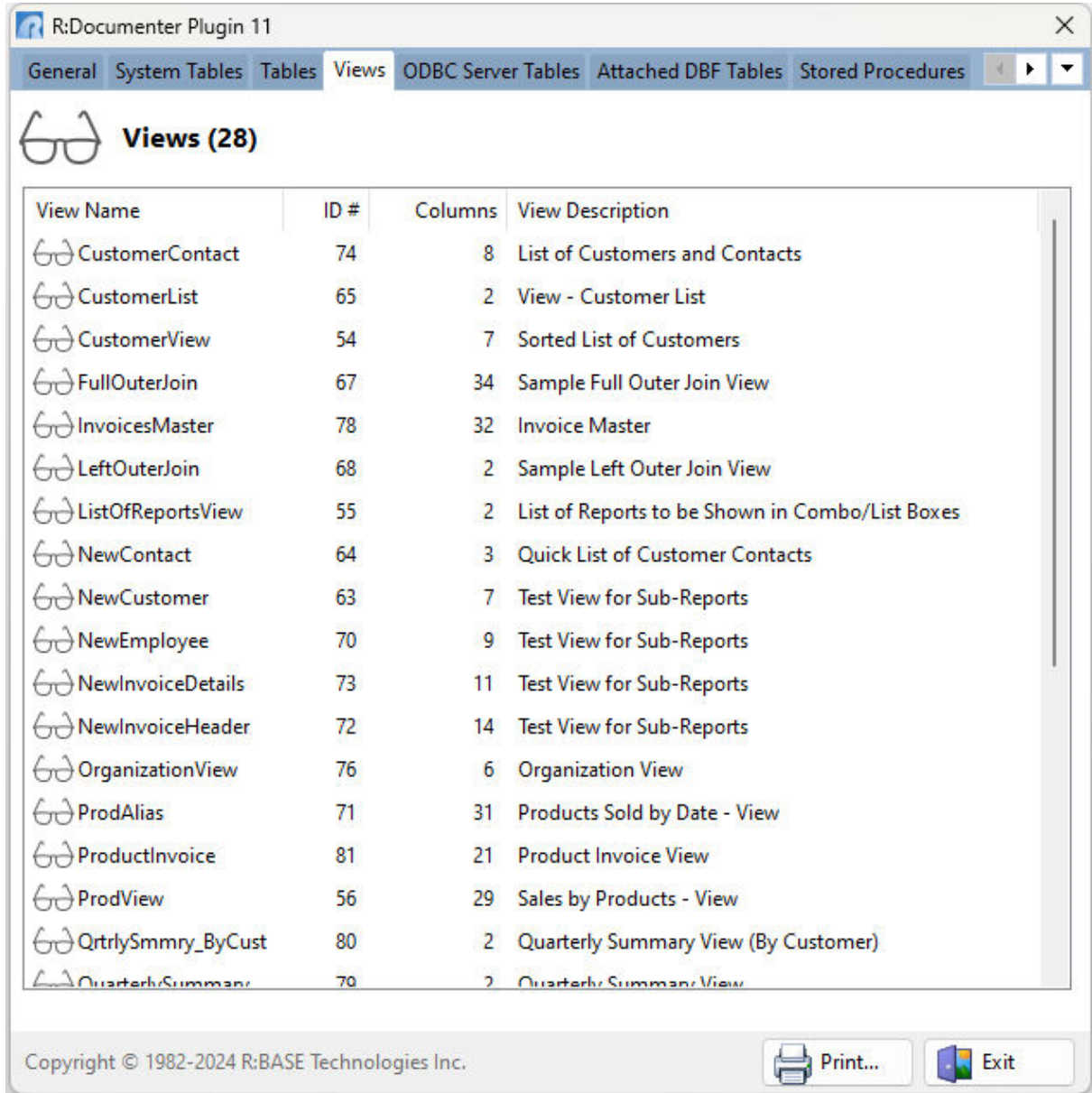
| Flags | Message | Where |
|-------|---------|-------|
| | | |

Triggers(0):

| Trigger Type | Stored Procedure |
|--------------|------------------|
| | |

4.4 Views

The "Views" tab will display the list of Views for the database along with the ID#, number of columns, and view description.




The screenshot shows the 'Views' tab in the R:Documenter Plugin 11 interface. The tab is titled 'Views (28)' and displays a list of 28 database views. The list is organized into four columns: View Name, ID #, Columns, and View Description. Each view name is preceded by a small icon of a pair of glasses. The views listed are: CustomerContact, CustomerList, CustomerView, FullOuterJoin, InvoicesMaster, LeftOuterJoin, ListOfReportsView, NewContact, NewCustomer, NewEmployee, NewInvoiceDetails, NewInvoiceHeader, OrganizationView, ProdAlias, ProductInvoice, ProdView, QtrlySmmry_ByCust, and QuarterlySummaryView. The bottom of the window shows the copyright notice 'Copyright © 1982-2024 R:BASE Technologies Inc.' and buttons for 'Print...' and 'Exit'.

| View Name | ID # | Columns | View Description |
|----------------------|------|---------|---|
| CustomerContact | 74 | 8 | List of Customers and Contacts |
| CustomerList | 65 | 2 | View - Customer List |
| CustomerView | 54 | 7 | Sorted List of Customers |
| FullOuterJoin | 67 | 34 | Sample Full Outer Join View |
| InvoicesMaster | 78 | 32 | Invoice Master |
| LeftOuterJoin | 68 | 2 | Sample Left Outer Join View |
| ListOfReportsView | 55 | 2 | List of Reports to be Shown in Combo/List Boxes |
| NewContact | 64 | 3 | Quick List of Customer Contacts |
| NewCustomer | 63 | 7 | Test View for Sub-Reports |
| NewEmployee | 70 | 9 | Test View for Sub-Reports |
| NewInvoiceDetails | 73 | 11 | Test View for Sub-Reports |
| NewInvoiceHeader | 72 | 14 | Test View for Sub-Reports |
| OrganizationView | 76 | 6 | Organization View |
| ProdAlias | 71 | 31 | Products Sold by Date - View |
| ProductInvoice | 81 | 21 | Product Invoice View |
| ProdView | 56 | 29 | Sales by Products - View |
| QtrlySmmry_ByCust | 80 | 2 | Quarterly Summary View (By Customer) |
| QuarterlySummaryView | 70 | 2 | Quarterly Summary View |

Any view can be selected for information displaying the view description, column aliases with the number of columns, and the SQL query syntax.

General System Tables Tables Views ODBC Server Tables Attached DBF Tables Stored Procedures

 **Views (28)**

View InvoicesMaster [Back to View List](#)

Description:
Invoice Master

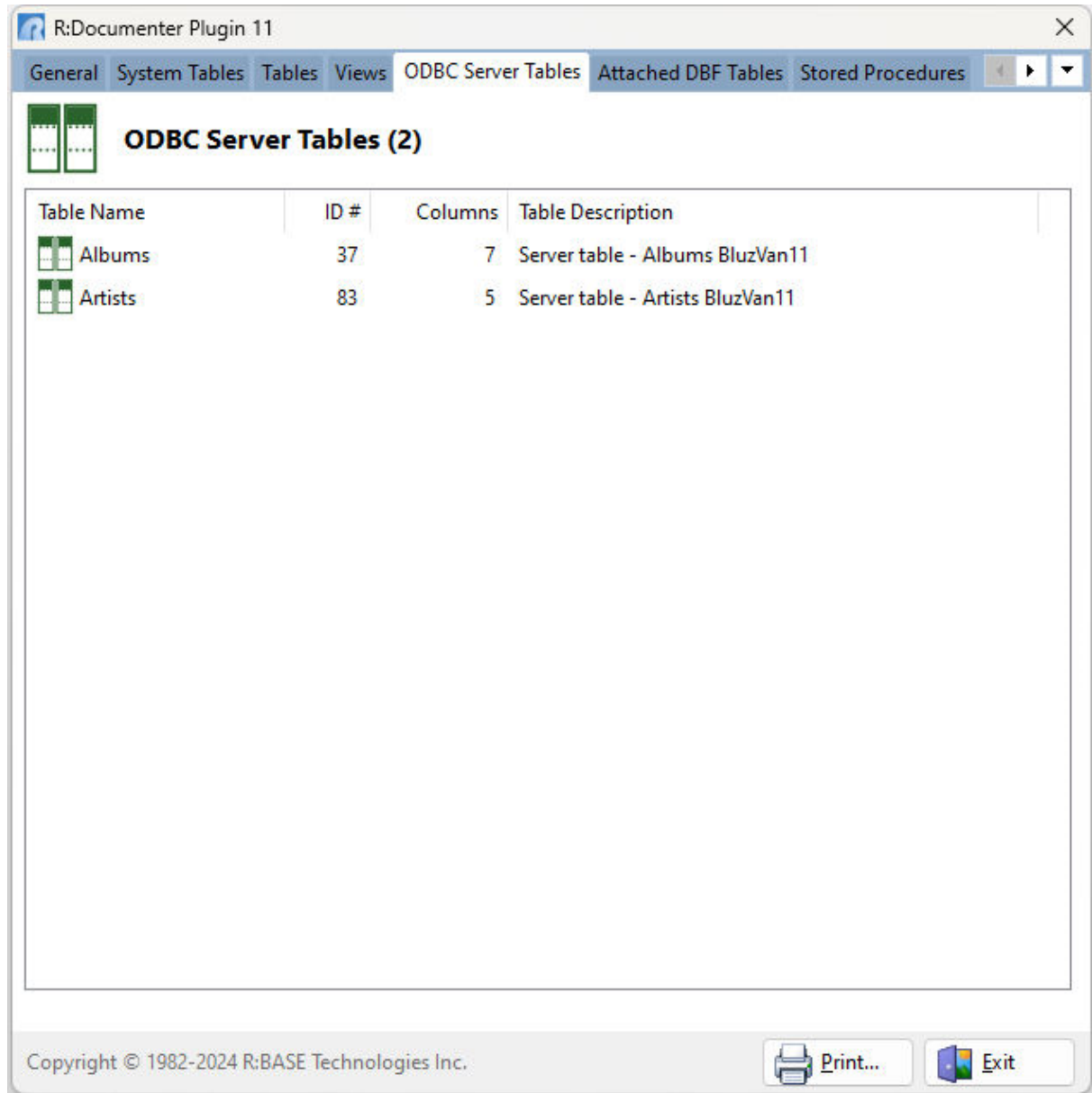
Column Aliases(32 Columns):
(Column aliases not used in view.)

Query:

```
SELECT T1.TransID AS TransID,T1.CustID AS CustID,T1.EmpID AS EmpID,T1.TransDate AS  
TransDate,T1.BillToCompany AS BillToCompany,(T1.BillToAddress + ',' + T1.BillToCity + ' ' + T1.BillToState + ' ' +  
T1.BillToZip) AS BillToAddress,T1.BillToState AS BillToState,T1.BillToZip AS BillToZip,T1.ShipToCompany AS  
ShipToCompany,(T1.ShipToAddress + ',' + T1.ShipToCity + ' ' + T1.ShipToState + ' ' + T1.ShipToZip) AS  
ShipToAddress,T1.ShipToState AS ShipToState,T1.ShipToZip AS ShipToZip,T1.NetAmount AS  
NetAmount,T1.Freight AS Freight,T1.Tax AS Tax,T1.InvoiceTotal AS InvoiceTotal,IFEQ (T2.DetailNum,1,1,0) AS  
InvoiceCounter,T2.DetailNum AS DetailNum,T2.Model AS Model,T2.Units AS Units,T2.Price AS Price,T2.Discount  
AS Discount,T2.SalePrice AS SalePrice,T2.ExtPrice AS ExtPrice,T3.ProdName AS ProdName,T3.ProdDesc AS  
ProdDesc,T3.ListPrice AS ListPrice,(T4.EmpFName + ' ' + T4.EmpLName) AS EmpName,T4.EmpPhone AS  
EmpPhone,T4.EmpExt AS EmpExt,T4.EmailAddress AS EmailAddress,T4.EmployeePhoto AS EmployeePhoto  
FROM INVOICES T1,INVOICEDETAILS T2,PRODUCTS T3,EMPLOYEES T4  
WHERE T1.TransID=T2.TransID AND T1.EmpID=T4.EmpID
```


4.5 ODBC Server Tables

The "ODBC Server Tables" tab will display the list of ODBC Server Tables for the database along with the ID#, number of rows, number of columns, and table description.



Any ODBC Server Table can be selected for information displaying the column names, ID#, data type, description and default value for the column.

General System Tables Tables Views ODBC Server Tables Attached DBF Tables Stored Procedures ▶ ▼

 **ODBC Server Tables (2)**

Server Table Albums ← Back to Table List

Columns(7):

| Column Name | ID # | Data Type | Column Description | Default |
|-------------|------|-----------|--------------------|---------|
| Album_ID | 213 | INTEGER | | |
| AlbumTitle | 214 | TEXT(40) | | |

Primary Key Column:

Custom Messages
On attempt to duplicate PK column(s)

On attempt to delete PK row referenced by another table:

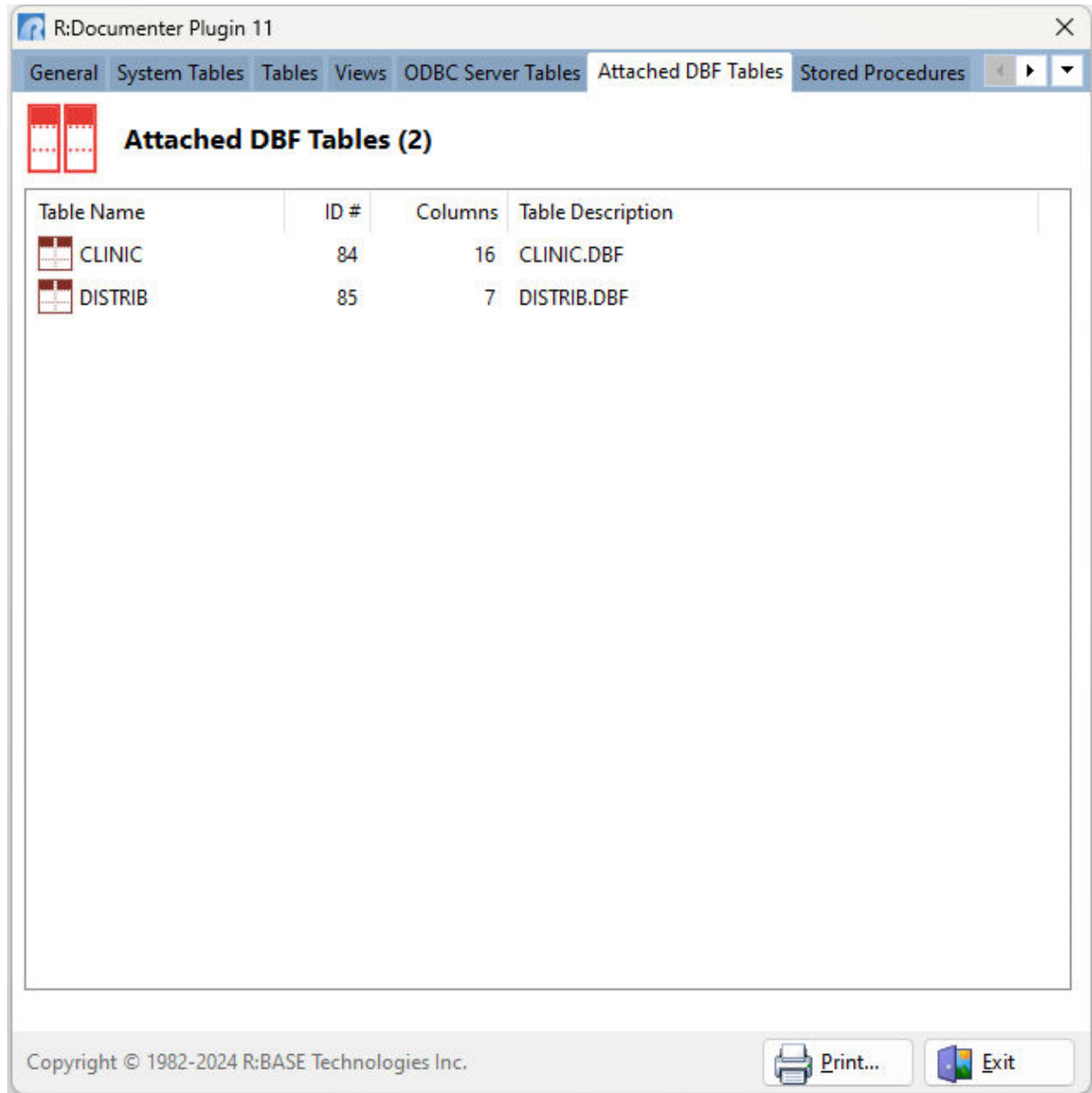
On attempt to change PK value referenced by another table:

The PK is referenced by the following Foreign Key:

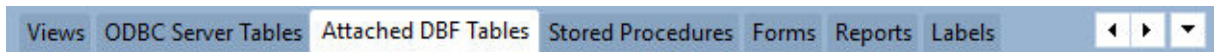
| FK Table Name | FK Column Name | Constraint Name |
|---------------|----------------|-----------------|
|---------------|----------------|-----------------|

4.6 Attached DBF Tables

The "Attached DBF Tables" tab will display the list of attached dBase Tables for the database along with the ID#, number of rows, number of columns, and table description.



Any DBF table can be selected for information displaying the column names, ID#, data type, description and default value for the column.



Attached DBF Tables (2)

dBase Table DISTRIB

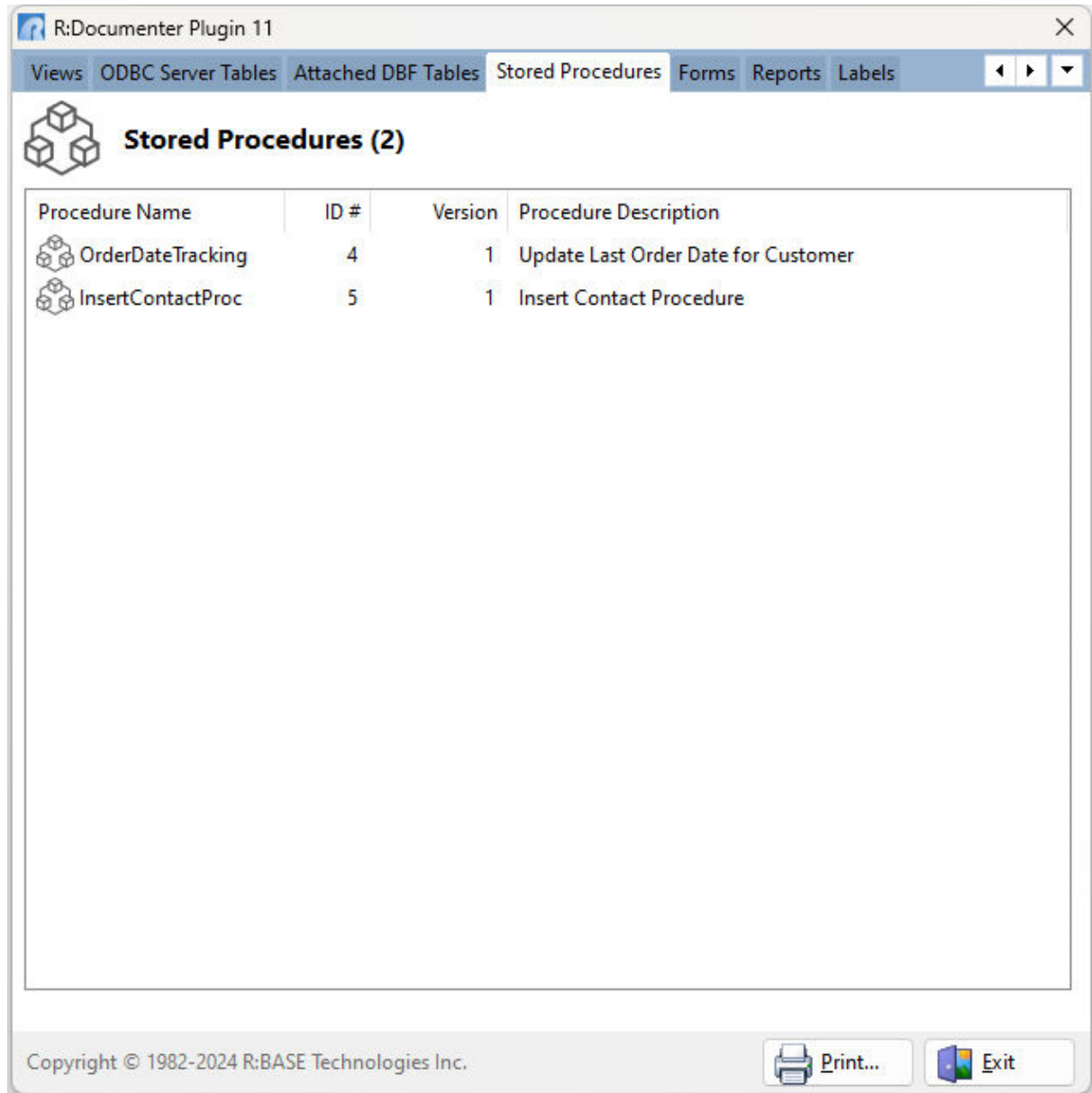
[Back to Table List](#)

Columns(7):

| Column Name | ID # | Data Type | Column Description | Default |
|-------------|------|-----------|--------------------|---------|
| CLCODE | 390 | DOUBLE | | |
| FIRSTNO | 391 | DOUBLE | | |
| LASTNO | 392 | DOUBLE | | |
| TOTALOT | 393 | DOUBLE | | |
| RECTYPE | 394 | TEXT(1) | | |
| TRANDATE | 395 | DATE | | |
| DUSERID | 396 | TEXT(2) | | |


4.7 Stored Procedures

The "Stored Procedure" tab will display the list of Stored Procedures for the database along with the ID#, the version setting, , and procedure description.



Any stored procedure can be selected for information displaying the parameters, history, and source code.

[Views](#) [ODBC Server Tables](#) [Attached DBF Tables](#) [Stored Procedures](#) [Forms](#) [Reports](#) [Labels](#)

 **Stored Procedures (2)**

Procedure OrderDateTracking

[Back to Procedure List](#)

Parameter:

| Parameter | ID # | Data Type | Parameter Description |
|-----------|------|-----------|-----------------------|
| RETURN | 11 | INTEGER | |

Modification History:

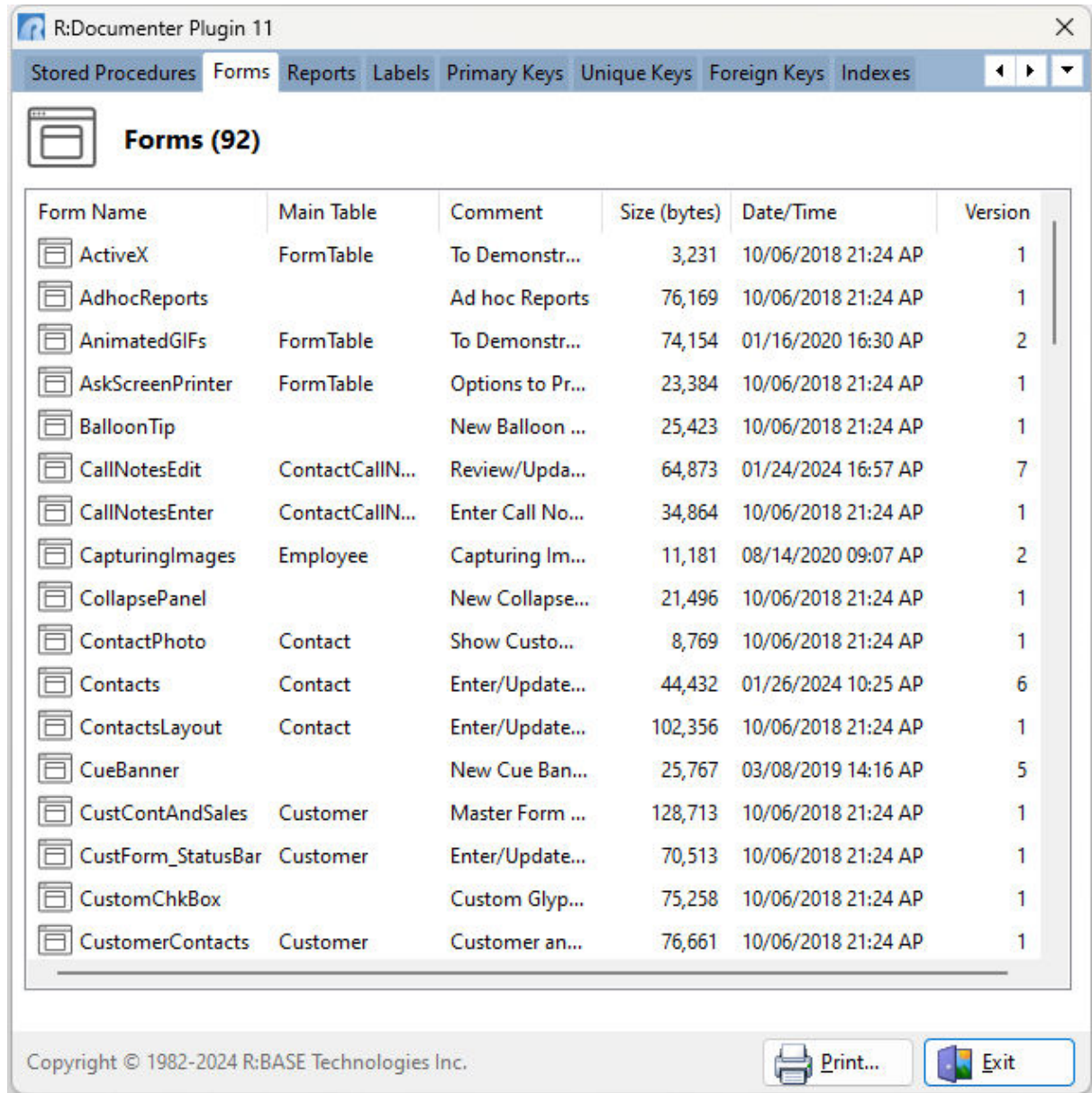
| ID # | Version | User Name | Description | Stored |
|------|---------|--------------------|------------------------------------|-----------------------|
| 6 | 1 | USER20171221161... | Update Last Order Date for Cust... | 12/28/2017 5:37:58 PM |

Source Code:

```
SELECT TransID,CustID,TransDate +  
  INTO vTransID INDICATOR vInd1, vCustID INDICATOR vInd2, +  
  vTransDate INDICATOR vInd3 +  
  FROM InvoiceHeader WHERE CURRENT OF SYS_NEW  
  
UPDATE Customer SET LastOrderDate = vTransDate +
```

4.8 Forms

The "Forms" tab will display the list of Forms for the database along with the table the form is based upon and the form description.



Any form can be selected for information displaying the list of form variables (if defined), the table they are based upon, the data type and expression. Also displayed are the types of controls on the form, their description, whether or not an EEP is assigned to that control, and if the control has a Component ID defined.



Forms (92)

Form CallNotesEnter

[← Back to Form List](#)

Form Table: ContactCallNotes

Slave Tables(2)

Customer
Contact

Form Variable:

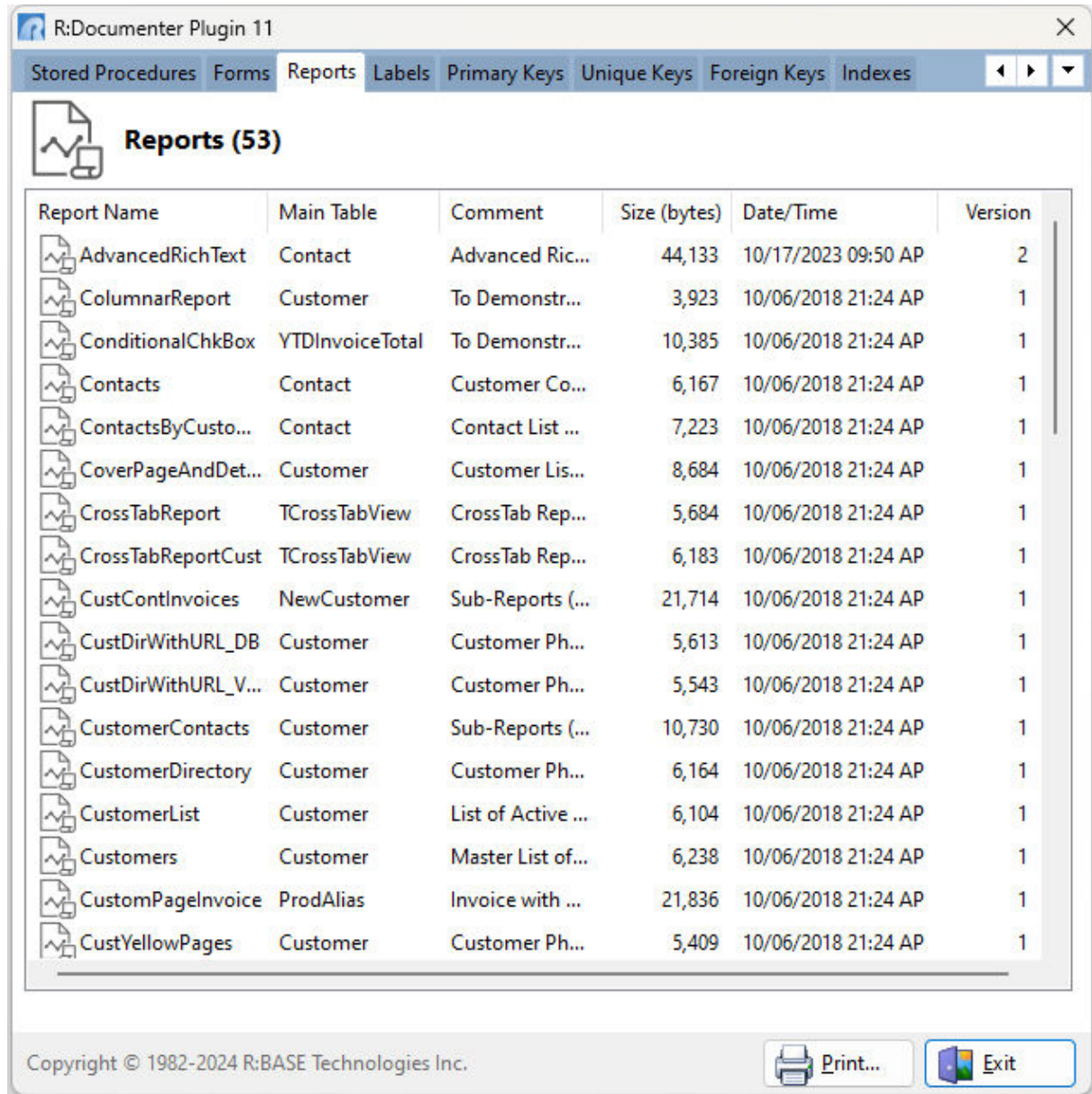
| Variable Name | Table Name | Datatype | Expression |
|---------------|------------|-------------|------------|
| vCompany | TEXT | Company ... | Contact |

Form Controls(22):

| Control Class | Description | Component ID | EEPs | Popup Menus |
|-------------------|----------------------|---------------|------|-------------|
| R:BASE Form | | | Yes | No |
| Static Text | Caption: 'Conta... | | No | No |
| Variable Label | Variable Name: '... | | No | No |
| Enhanced Grou... | Caption: 'Select ... | GB_Panel1 | No | No |
| Variable Looku... | Variable Name: '... | ComboBox_C... | No | No |

4.9 Reports

The "Reports" tab will display the list of Reports for the database along with the table the report is based upon and the report description.




The screenshot shows the 'R:Documenter Plugin 11' window with the 'Reports' tab selected. The window title bar includes a close button (X). The tab bar shows 'Stored Procedures', 'Forms', 'Reports' (selected), 'Labels', 'Primary Keys', 'Unique Keys', 'Foreign Keys', and 'Indexes'. The 'Reports (53)' section displays a list of reports with the following columns: Report Name, Main Table, Comment, Size (bytes), Date/Time, and Version. The list includes 18 visible reports, each with a small icon to its left. At the bottom of the window, there is a copyright notice 'Copyright © 1982-2024 R:BASE Technologies Inc.' and two buttons: 'Print...' and 'Exit'.

| Report Name | Main Table | Comment | Size (bytes) | Date/Time | Version |
|---------------------|-----------------|--------------------|--------------|---------------------|---------|
| AdvancedRichText | Contact | Advanced Ric... | 44,133 | 10/17/2023 09:50 AP | 2 |
| ColumnarReport | Customer | To Demonstr... | 3,923 | 10/06/2018 21:24 AP | 1 |
| ConditionalChkBox | YTDInvoiceTotal | To Demonstr... | 10,385 | 10/06/2018 21:24 AP | 1 |
| Contacts | Contact | Customer Co... | 6,167 | 10/06/2018 21:24 AP | 1 |
| ContactsByCusto... | Contact | Contact List ... | 7,223 | 10/06/2018 21:24 AP | 1 |
| CoverPageAndDet... | Customer | Customer Lis... | 8,684 | 10/06/2018 21:24 AP | 1 |
| CrossTabReport | TCrossTabView | CrossTab Rep... | 5,684 | 10/06/2018 21:24 AP | 1 |
| CrossTabReportCust | TCrossTabView | CrossTab Rep... | 6,183 | 10/06/2018 21:24 AP | 1 |
| CustContInvoices | NewCustomer | Sub-Reports (...) | 21,714 | 10/06/2018 21:24 AP | 1 |
| CustDirWithURL_DB | Customer | Customer Ph... | 5,613 | 10/06/2018 21:24 AP | 1 |
| CustDirWithURL_V... | Customer | Customer Ph... | 5,543 | 10/06/2018 21:24 AP | 1 |
| CustomerContacts | Customer | Sub-Reports (...) | 10,730 | 10/06/2018 21:24 AP | 1 |
| CustomerDirectory | Customer | Customer Ph... | 6,164 | 10/06/2018 21:24 AP | 1 |
| CustomerList | Customer | List of Active ... | 6,104 | 10/06/2018 21:24 AP | 1 |
| Customers | Customer | Master List of... | 6,238 | 10/06/2018 21:24 AP | 1 |
| CustomPageInvoice | ProdAlias | Invoice with ... | 21,836 | 10/06/2018 21:24 AP | 1 |
| CustYellowPages | Customer | Customer Ph... | 5,409 | 10/06/2018 21:24 AP | 1 |

Any report can be selected for information displaying the list of report variables (if defined), the table they are based upon, the data type, the report band section it is located, and expression. Also displayed are the types of controls on the report, their description, whether or not an EEP is assigned to that control, and if the control has a Component ID defined.

Attached DBF Tables
Stored Procedures
Forms
Reports
Labels
Primary Keys
Foreign Keys


Reports (53)

Report ContactsByCustomer
[Back to Report List](#)

Report Table: Contact
Slave Tables(0)

Report Variables(2):

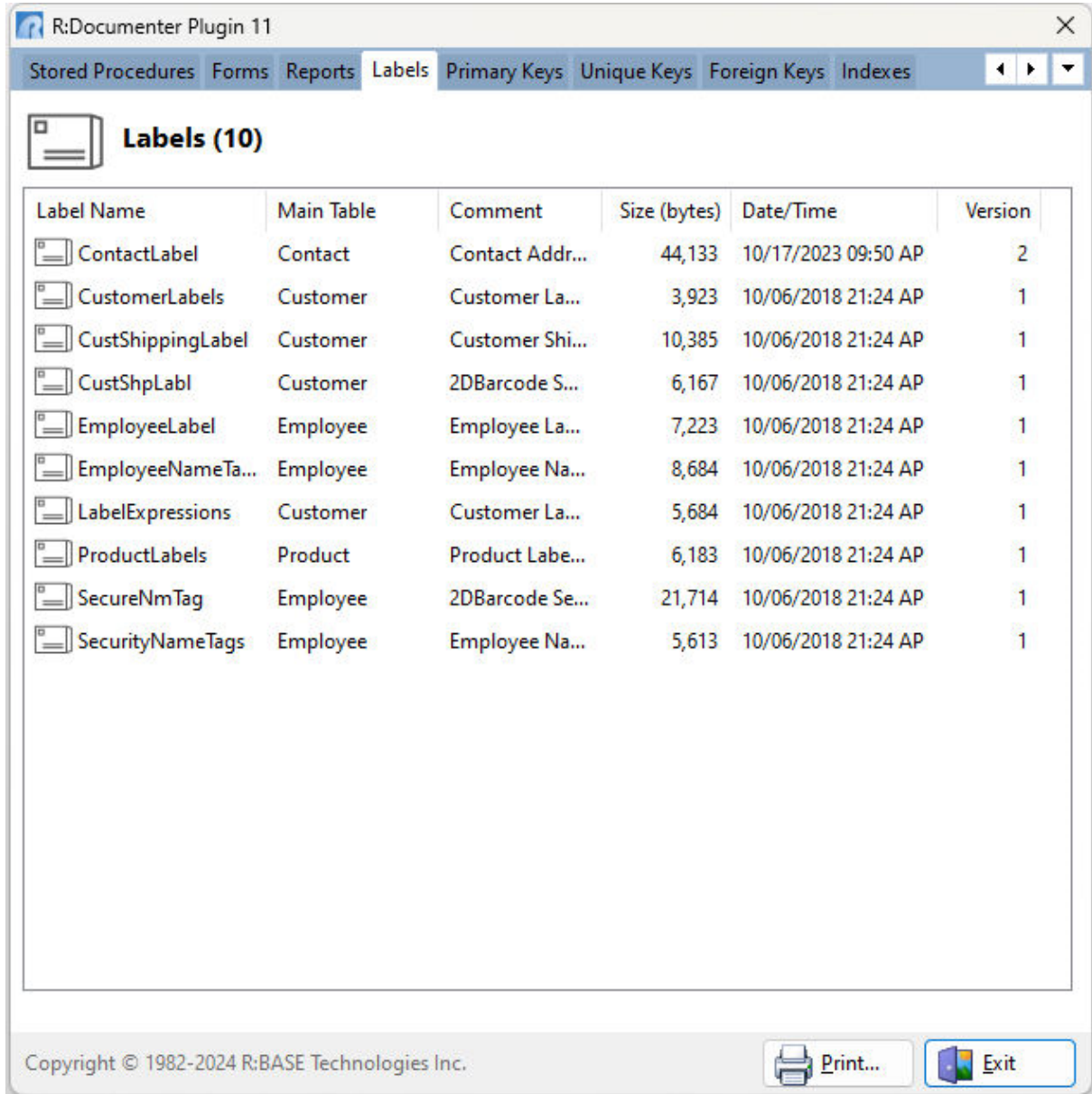
| Variable Name | Variable Type | Variable Expression | Section |
|---------------|---------------|---|---------|
| vContactName | TEXT | (ContLName+', '&ContFName) | D |
| vCompany | TEXT | Company IN Customer WHERE CustID = C... | PH |

Report Controls(32):

| Control Class | Description | Compone... | EEPs |
|------------------|--|------------|------|
| Report | Table: 'Contact' | | No |
| Page Header Band | Height: 32015 | | No |
| Shape | Left: 1588, Top: 23019, Width: 187... | | No |
| Label | Caption: 'Contact Name', Left: 13... | | No |
| Label | Caption: 'Contact List', Left: 7540... | | No |

4.10 Labels

The "Labels" tab will display the list of Labels for the database along with the table the label is based upon and the label description.




The screenshot shows the 'R:Documenter Plugin 11' window with the 'Labels' tab selected. The tab bar includes 'Stored Procedures', 'Forms', 'Reports', 'Labels', 'Primary Keys', 'Unique Keys', 'Foreign Keys', and 'Indexes'. The 'Labels (10)' section displays a table with the following data:

| Label Name | Main Table | Comment | Size (bytes) | Date/Time | Version |
|-------------------|------------|-----------------|--------------|---------------------|---------|
| ContactLabel | Contact | Contact Addr... | 44,133 | 10/17/2023 09:50 AP | 2 |
| CustomerLabels | Customer | Customer La... | 3,923 | 10/06/2018 21:24 AP | 1 |
| CustShippingLabel | Customer | Customer Shi... | 10,385 | 10/06/2018 21:24 AP | 1 |
| CustShpLabl | Customer | 2DBarcode S... | 6,167 | 10/06/2018 21:24 AP | 1 |
| EmployeeLabel | Employee | Employee La... | 7,223 | 10/06/2018 21:24 AP | 1 |
| EmployeeNameTa... | Employee | Employee Na... | 8,684 | 10/06/2018 21:24 AP | 1 |
| LabelExpressions | Customer | Customer La... | 5,684 | 10/06/2018 21:24 AP | 1 |
| ProductLabels | Product | Product Labe... | 6,183 | 10/06/2018 21:24 AP | 1 |
| SecureNmTag | Employee | 2DBarcode Se... | 21,714 | 10/06/2018 21:24 AP | 1 |
| SecurityNameTags | Employee | Employee Na... | 5,613 | 10/06/2018 21:24 AP | 1 |

At the bottom of the window, there is a copyright notice: 'Copyright © 1982-2024 R:BASE Technologies Inc.' and two buttons: 'Print...' and 'Exit'.

Any label can be selected for information displaying the list of label variables (if defined), the table they are based upon, the data type, the label band section it is located, and expression. Also displayed are the types of controls on the label, their description, whether or not an EEP is assigned to that control, and if the control has a Component ID defined.

Attached DBF Tables Stored Procedures Forms Reports **Labels** Primary Keys Foreign Keys

 **Labels (10)**

Label CustShpLabel [Back to Label List](#)

Label Table: Customer

Slave Table:

Label Variable:

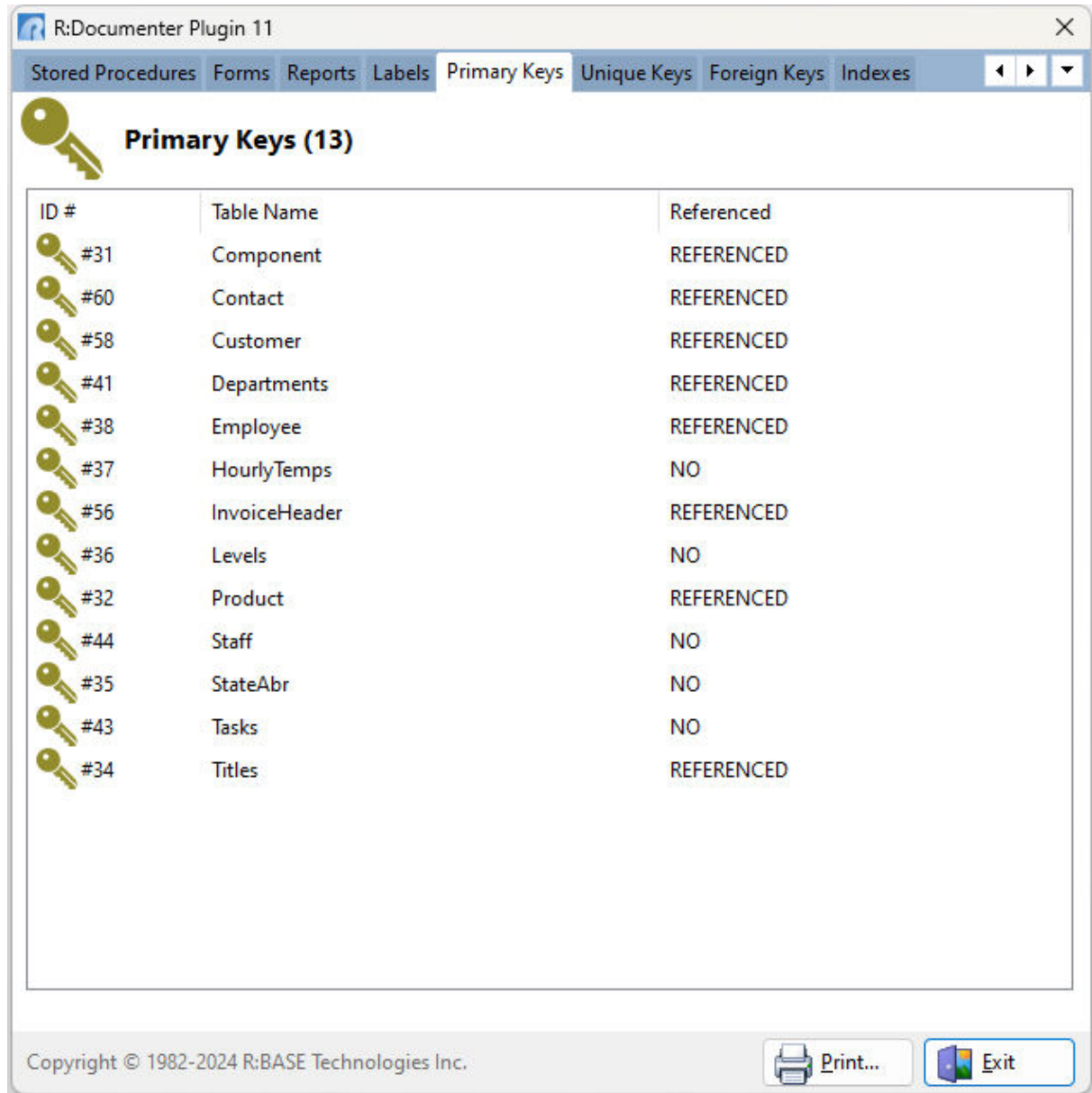
| Variable Name | Variable Type | Variable Expression | Section |
|---------------|---------------|-----------------------------------|---------|
| vCSZ | TEXT | (CustCity+', '&CustState&CustZip) | D |

Label Controls(12):

| Control Class | Description | Compone... | EEPs |
|--------------------|---------------------------------------|------------|------|
| Report | Table: 'Customer' | | No |
| Column Header Band | Height: 0 | | No |
| Detail Band | Height: 76200 | | No |
| Shape | Left: 7673, Top: 265, Width: 88900... | | No |
| DB Text | Table: 'Customer', Field: 'Compa... | | No |

4.11 Primary Keys

The "Primary Keys" tab will display the list of primary keys for the database along with the table the primary key is based upon and whether or not the primary key is referenced.



Primary Keys (13)

| ID # | Table Name | Referenced |
|------|---------------|------------|
| #31 | Component | REFERENCED |
| #60 | Contact | REFERENCED |
| #58 | Customer | REFERENCED |
| #41 | Departments | REFERENCED |
| #38 | Employee | REFERENCED |
| #37 | HourlyTemps | NO |
| #56 | InvoiceHeader | REFERENCED |
| #36 | Levels | NO |
| #32 | Product | REFERENCED |
| #44 | Staff | NO |
| #35 | StateAbr | NO |
| #43 | Tasks | NO |
| #34 | Titles | REFERENCED |

Copyright © 1982-2024 R:BASE Technologies Inc.

Print... Exit

Any primary key can be selected for information displaying the column the primary key is assigned, the minimum and maximum table values in the table, the custom messages for the key, and foreign references for the primary key.

Attached DBF Tables Stored Procedures Forms Reports Labels **Primary Keys** Foreign Keys ◀ ▶ ▼



Primary Keys (13)

Primary Key #39

[← Back to Key List](#)

Primary Key Column:

| # | Column Name | PK Min Value | PK Max Value |
|---|-------------|--------------|--------------|
| 1 | CustID | 101 | 130 |

Custom Messages

On attempt to duplicate PK column(s)

The customer id number must be unique for this table.

On attempt to delete PK row referenced by another table:

This customer id number is being referenced in another table

On attempt to change PK value referenced by another table:

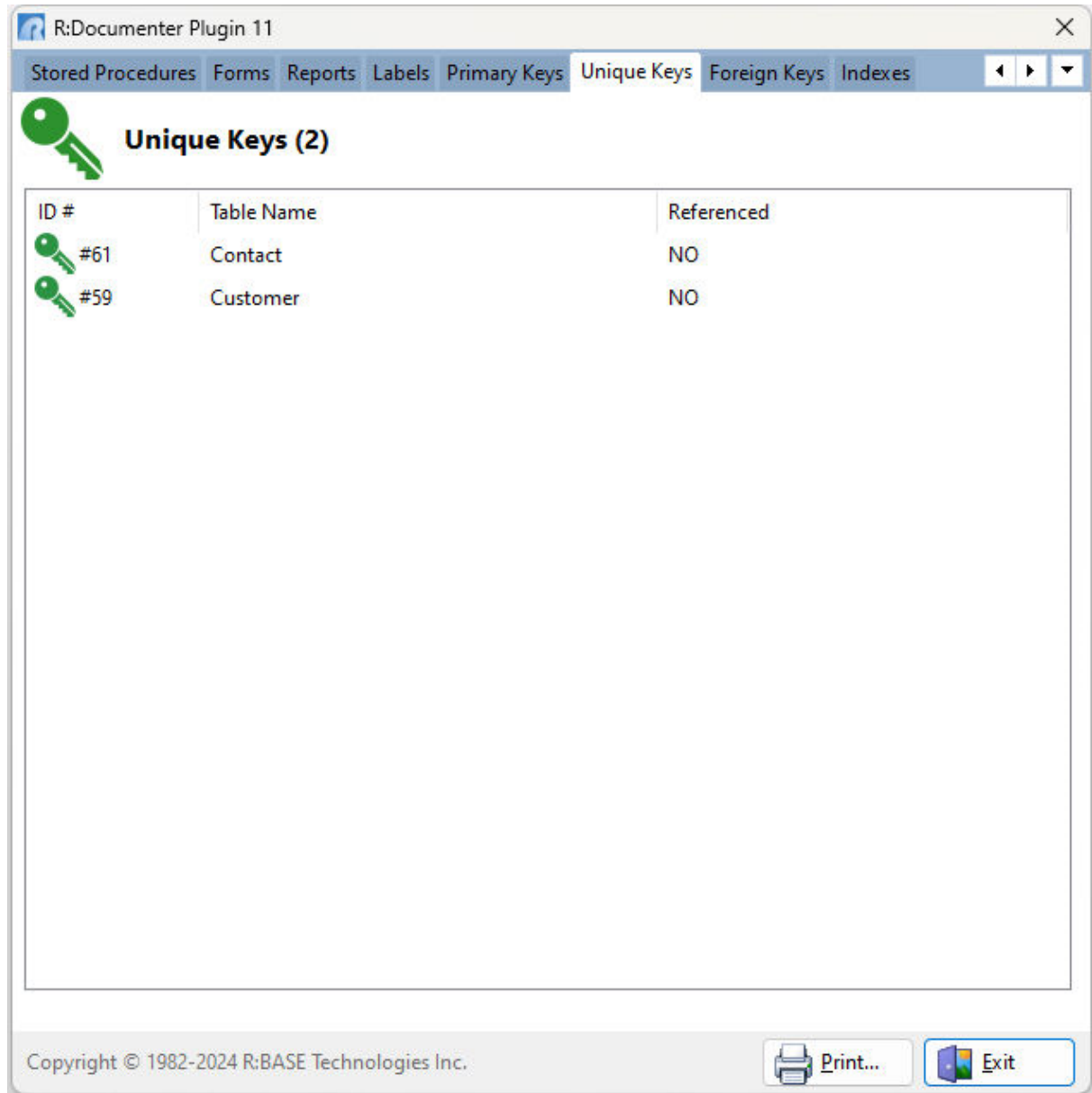
This value is being reference in another table.

The PK is referenced by the following Foreign Key:

| FK Table Name | FK Column Name | Constraint Name |
|---------------|----------------|-----------------|
| Contact | CustID | #54 |

4.12 Unique Keys

The "Unique Keys" tab will display the list of unique keys for the database along with the table the unique key is based upon and whether or not the unique key is referenced.



Any unique key can be selected for information displaying the column the unique key is assigned, the minimum and maximum table values in the table and the custom messages for the key.

Stored Procedures Forms Reports Labels Primary Keys **Unique Keys** Foreign Keys Indexes



Unique Keys (2)

Unique Key #61

[Back to Key List](#)

Unique Key Column:

| # | Column Name | UK Min Value | UK Max Value |
|---|-------------|--------------|--------------|
| 1 | ContPhone | 206-123-4567 | 828-678-9876 |

Custom Messages

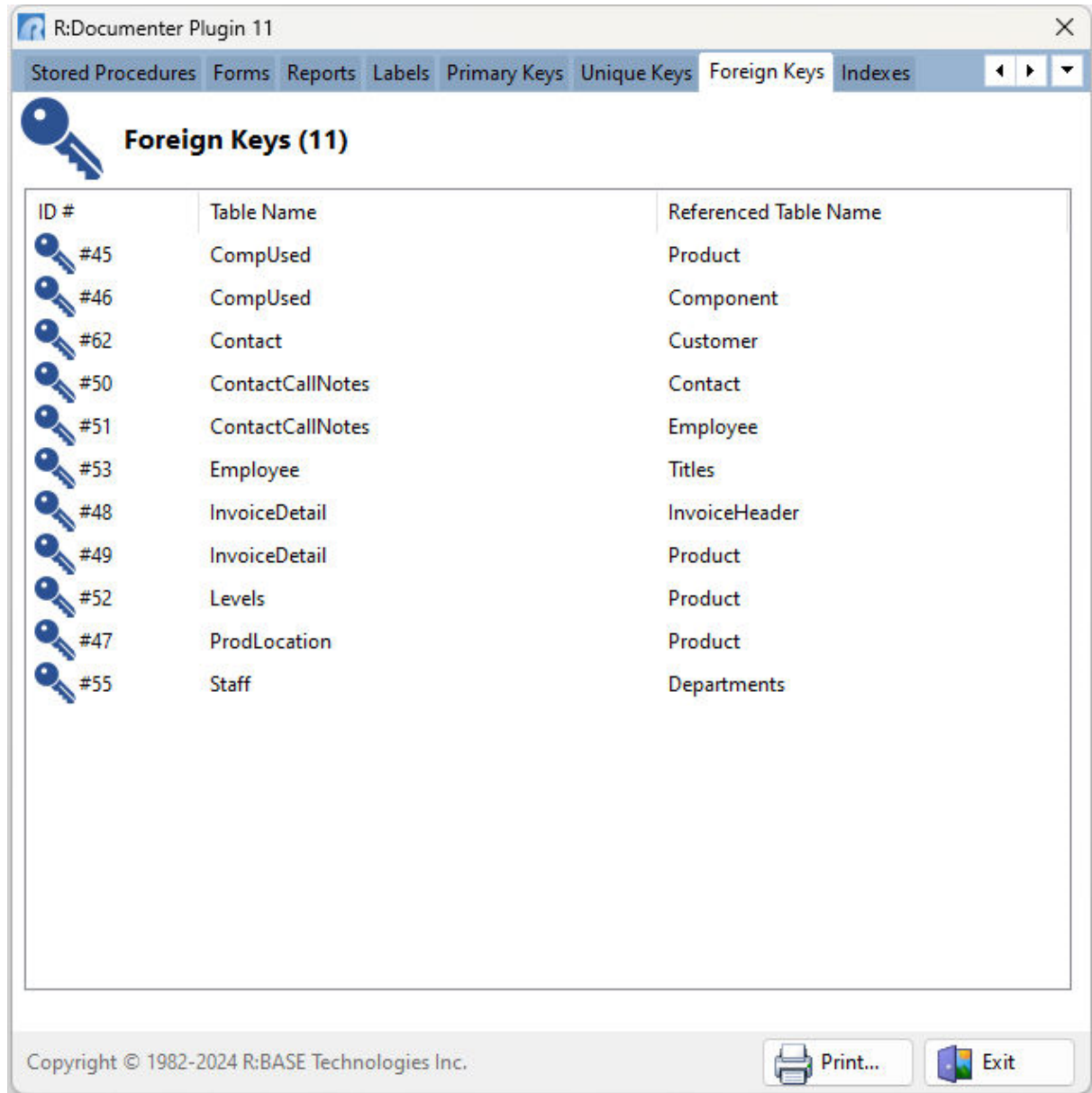
On attempt to duplicate UK column(s)
Values for rows in Contact must be unique
On attempt to delete UK row referenced by another table:
Cannot delete - values exist in another table
On attempt to change UK value referenced by another table:
Cannot update - values exist in another table

The UK is referenced by the following Foreign Key:

| FK Table Name | FK Column Name | Constraint Name |
|---------------|----------------|-----------------|
| | | |

4.13 Foreign Keys

The "Foreign Keys" tab will display the list of foreign keys for the database along with the table the foreign key is based upon and the table name the key references.



Any foreign key can be selected for information displaying the column and table the key references with the direction, as well as the custom messages for the key.

Stored Procedures Forms Reports Labels Primary Keys Foreign Keys Indexes Triggers



Foreign Keys (11)

Foreign Key #54

[Back to Key List](#)

Foreign Key Column:

| # | Column Name | Referenced Table | Direction |
|---|-------------|------------------|-----------|
| 1 | CustID | Customer | ASC |

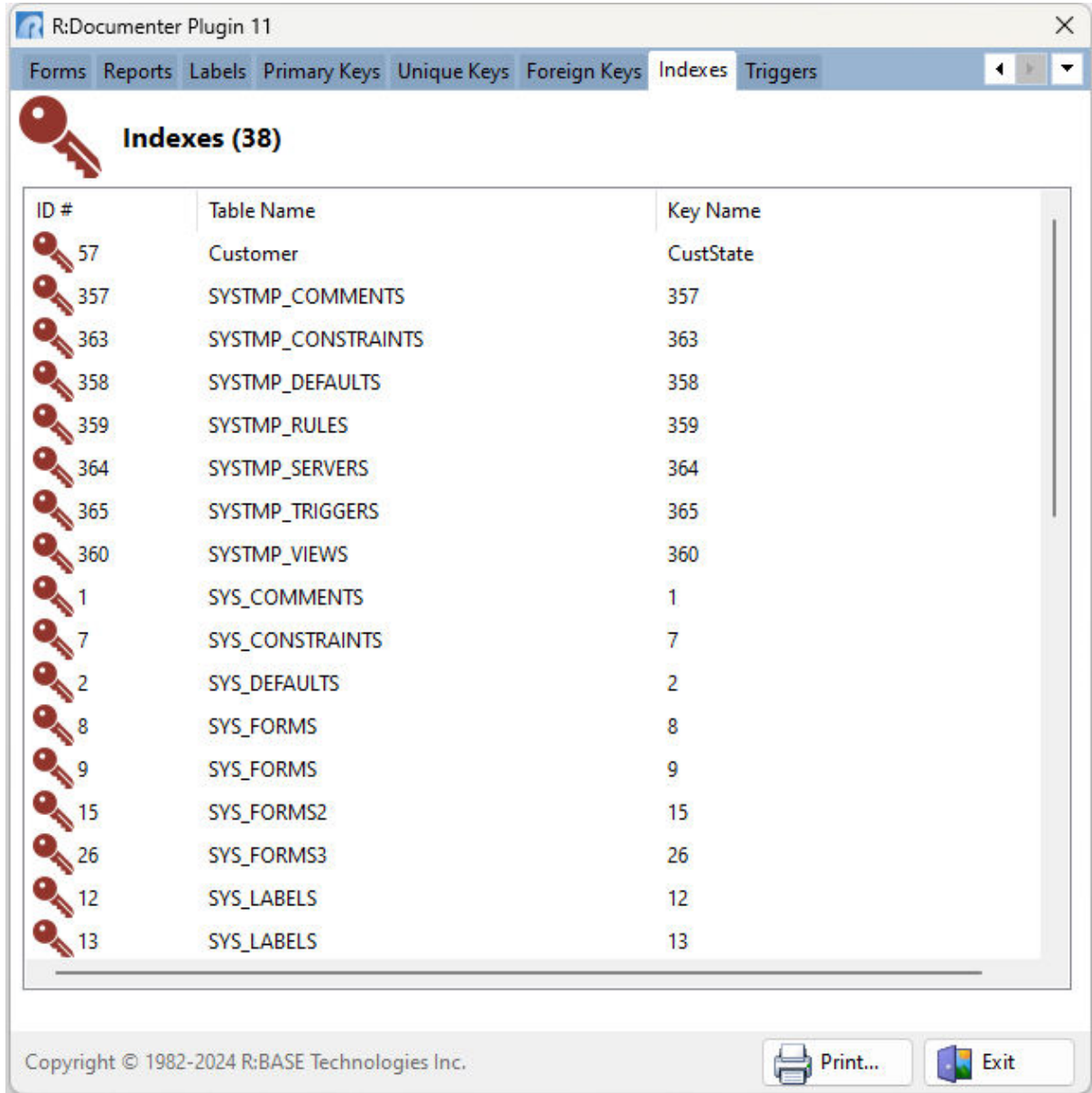
Custom Messages

Message on insert of a FK value not in the referenced table:

Message on update of a FK value to one not in the referenced table:

4.14 Indexes

The "Indexes" tab will display the list of indexes for the database along with the ID#, the table index is based upon and index name.



The screenshot shows the 'R:Documenter Plugin 11' window with the 'Indexes' tab selected. The tab bar includes 'Forms', 'Reports', 'Labels', 'Primary Keys', 'Unique Keys', 'Foreign Keys', 'Indexes', and 'Triggers'. The 'Indexes' tab is active, displaying a list of 38 indexes. The list is titled 'Indexes (38)' and features a red key icon. The list has three columns: 'ID #', 'Table Name', and 'Key Name'. The data is as follows:

| ID # | Table Name | Key Name |
|------|--------------------|-----------|
| 57 | Customer | CustState |
| 357 | SYSTMP_COMMENTS | 357 |
| 363 | SYSTMP_CONSTRAINTS | 363 |
| 358 | SYSTMP_DEFAULTS | 358 |
| 359 | SYSTMP_RULES | 359 |
| 364 | SYSTMP_SERVERS | 364 |
| 365 | SYSTMP_TRIGGERS | 365 |
| 360 | SYSTMP_VIEWS | 360 |
| 1 | SYS_COMMENTS | 1 |
| 7 | SYS_CONSTRAINTS | 7 |
| 2 | SYS_DEFAULTS | 2 |
| 8 | SYS_FORMS | 8 |
| 9 | SYS_FORMS | 9 |
| 15 | SYS_FORMS2 | 15 |
| 26 | SYS_FORMS3 | 26 |
| 12 | SYS_LABELS | 12 |
| 13 | SYS_LABELS | 13 |

At the bottom of the window, there is a copyright notice: 'Copyright © 1982-2024 R:BASE Technologies Inc.' and two buttons: 'Print...' and 'Exit'.

Any index can be selected for information displaying the column that the index is assigned upon, the direction, unique setting, NULL value, length, direction, duplicate factor and adjacency factor.

Stored Procedures Forms Reports Labels Primary Keys Foreign Keys **Indexes** Triggers



Indexes (31)

Index CustState

[Back to Key List](#)

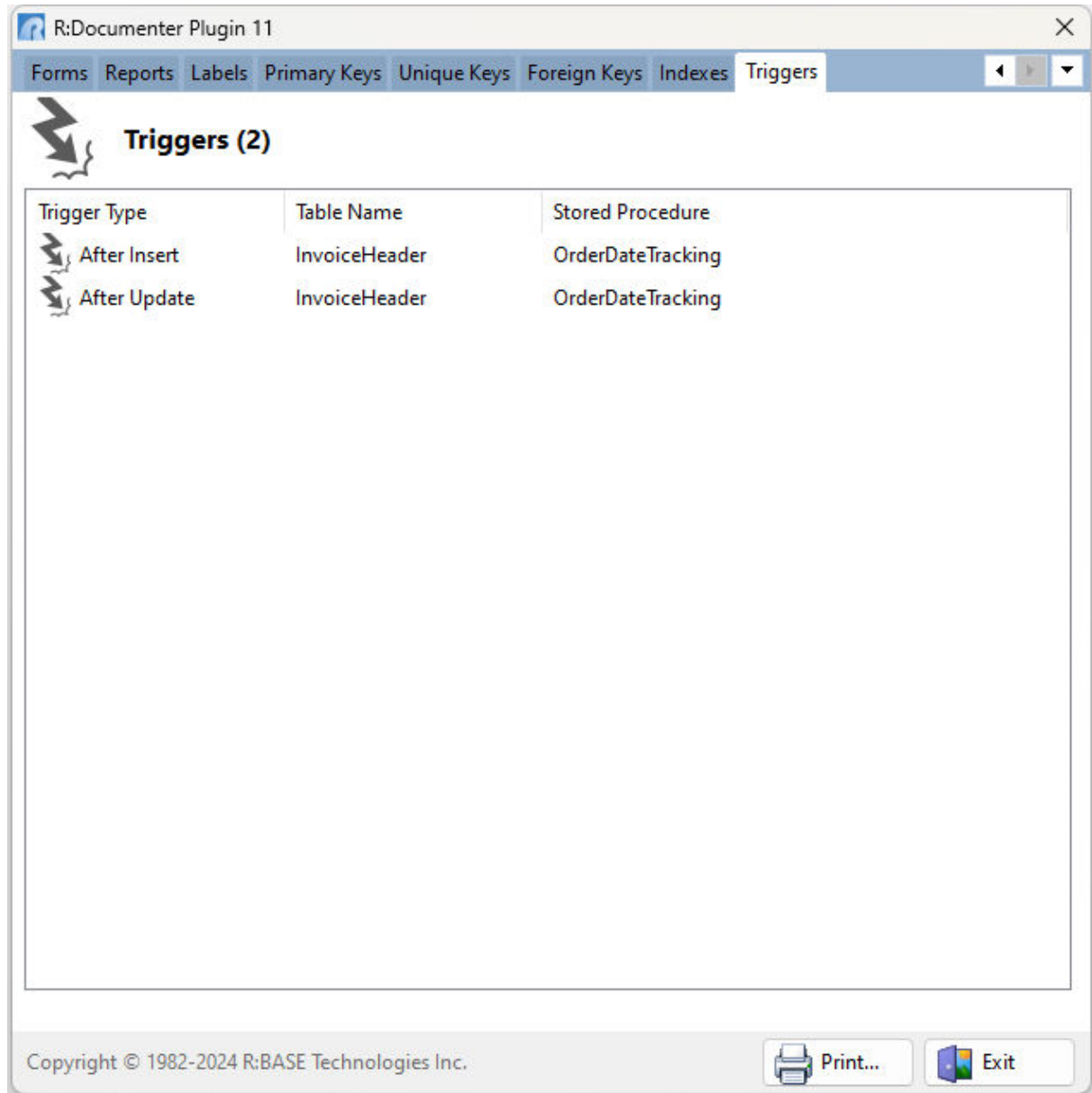
Index Columns :

| # | Column Name | Direction |
|---|-------------|-----------|
| 1 | CustState | ASC |

Unique ☐ NULLs allowed ☐
Key Length: 255
Direction: ASC
Dup: 2.142857
Adj: 1

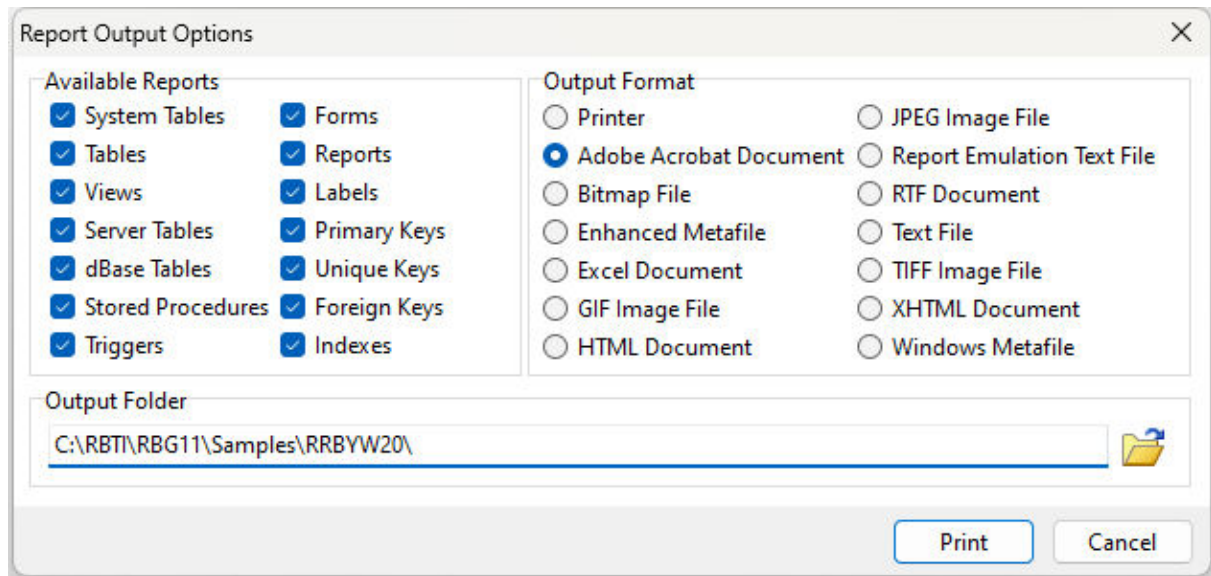
4.15 Triggers

The "Triggers" tab will display the list of triggers for the database along with the trigger type, the table the trigger is based upon and stored procedure it uses.



4.16 Print Report Output

R:Documenter will create a separate report for each portion of the database with 14 different output options. An option is also available to change the output folder.



Part

V

5 Examples

5.1 Example 01

-- connects to a password protected database, shows progress dialogs, hides main form,
-- files saved to C:\Temp, output format is PDF, printed reports are Forms, Reports, and Tables

```
PLUGIN RDOCUMENTER vDocResult +
|DBNAME CONTRCT IDENTIFIED BY OWNERNAME PASSWORD+
|PROGRESS ON+
|GUI OFF+
|DESTINATION C:\TEMP+
|FORMAT PDF+
|OBJECT FORM,REPORT,TABLE
```

5.2 Example 02

-- hides progress dialogs, shows main form, files saved to current folder, output format is PDF, print all report types

```
PLUGIN RDOCUMENTER vDocResult|PROGRESS OFF
```

5.3 Example 03

-- Creates Full Database Schema Documentation
-- Plugins Used: RDocumenter11.rbm, RPDFMerge11.rbm

```
DISCONNECT
CONNECT RRBYW20 IDENTIFIED BY NONE
PAUSE 2 USING 'Choose the PDF format for the report output.' +
CAPTION 'IMPORTANT!' ICON INFO BUTTON 'OK' OPTION +
MESSAGE_FONT_NAME Tahoma +
|MESSAGE_FONT_COLOR 0 +
|MESSAGE_FONT_SIZE 10 +
|MESSAGE_FONT_BOLD ON

PLUGIN RDocumenter v1
--- In the R:Documenter window, choose
-- PDF format for report output

PLUGIN RPDFMerge 'vResult +
|ACTION MERGE +
|DOC_LIST_FILE PDFFilesToMerge.LST +
|OUTPUT_FILE RRBYW20_TOTAL_SCHEMA.pdf +
|OPEN_AFTER_SAVE ON +
|AUTHOR Technical Services Division of R:BASE Technologies +
|TITLE RRBYW20 Schema Documentation +
|SUBJECT Schema Documentation +
|KEYWORDS R:BASE, R:Documenter, R:PDFMerge, PLUGIN +
|CREATOR R:BASE Technologies, Inc.'

SET ERROR MESSAGE 2077 OFF
DELETE RRBYW20_SYS_TABLES.pdf
```

```
DELETE RRBYW20_TABLES.pdf
DELETE RRBYW20_VIEWS.pdf
DELETE RRBYW20_SVR_TABLES.pdf
DELETE RRBYW20_DBASE_TABLES.pdf
DELETE RRBYW20_PROCEDURES.pdf
DELETE RRBYW20_FORMS.pdf
DELETE RRBYW20_REPORTS.pdf
DELETE RRBYW20_LABELS.pdf
DELETE RRBYW20_PRIMARY_KEYS.pdf
DELETE RRBYW20_UNIQUE_KEYS.pdf
DELETE RRBYW20_FOREIGN_KEYS.pdf
DELETE RRBYW20_INDEXES.pdf
DELETE RRBYW20_TRIGGERS.pdf
SET ERROR MESSAGE 2077 ON
RETURN
```

--The following is the PDFFilesToMerge.LST contents

```
RRBYW20_SYS_TABLES.pdf
RRBYW20_TABLES.pdf
RRBYW20_VIEWS.pdf
RRBYW20_SVR_TABLES.pdf
RRBYW20_DBASE_TABLES.pdf
RRBYW20_PROCEDURES.pdf
RRBYW20_FORMS.pdf
RRBYW20_REPORTS.pdf
RRBYW20_LABELS.pdf
RRBYW20_PRIMARY_KEYS.pdf
RRBYW20_UNIQUE_KEYS.pdf
RRBYW20_FOREIGN_KEYS.pdf
RRBYW20_INDEXES.pdf
RRBYW20_TRIGGERS.pdf
```

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: support@rbase.com
- Access the R:BASE Technologies Support home page online at <https://www.rbase.com/support>

You may be required to purchase a technical support plan. Several support plans are available to suit the needs of all users. [Available Technical Support Plans](#)

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. <https://www.rbase.com/register/>

Part

VII

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>

Part



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.

Index

- A -

activate 13, 14
activation 14
Activation Key 14, 19
administrator 13

- C -

Computer ID 14
configuration 14
copyright 6

- D -

DBF tables 32
deactivation 19

- F -

feedback 60
foreign keys 46
forms 36

- I -

indexes 48
install 14

- K -

key, activation 13
key, license 13

- L -

labels 40
license 7, 13
License Key 14, 16, 17, 19
license transfer 19

- O -

ODBC server tables 30
output 51

- P -

permission 13
PLUGIN 14, 21
Plugin File 16, 17
primary keys 42
PROPERTY 17

- R -

R:Compiler 16
register 14
registration number 13
reports 38
requirements 14
Runtime 17

- S -

stored procedures 34
support 10, 13
system requirements 13
system tables 23

- T -

tables 25
triggers 50

- U -

UAC 13
Uninstall 19
unique keys 44
User Access Control 13

- V -

views 28

Back Cover