

ReportWorks Version 12.6 Installation

Introduction

Thank you for choosing to install R&R ReportWorks. The information in this file is designed to familiarize you with the components of ReportWorks and to guide you through the install process. It is suggested that you review this document in its entirety prior to beginning your installation of ReportWorks.

Installation Overview

The ReportWorks Infinity Installshield Wizard works with the Microsoft Windows installer to install R&R ReportWorks Infinity for either local or shared access. When you use the installer, you are prompted to select the licensing model that is appropriate for your environment.

Minimum Installation Requirements

You can install ReportWorks on machines that meet the following minimum requirements.

Operating System	Windows 98 Windows XP Windows Server Versions 2003, 2008, 2008 R2, 2012 Windows Vista Windows 7 Windows 8 / 8.1 Windows 10
Memory	At least 512 megabytes (MB) of RAM. 1024 MB recommended.
Disk Space	250 MB
Drive	CD-ROM or DVD drive

To view the documentation files, you must have a utility that supports reading documents in PDF and RTF format.

If you are running in an environment that has defined user roles (such as Windows Vista with UAC enabled), you will need administrator privileges to install ReportWorks since the install does create registry entries as well as installing files to system locations. See the section **Vista Installation Considerations** at the conclusion of this document for a discussion on running ReportWorks under Vista.

It is also suggested that you create a system restore point prior to running the install. It is not anticipated that you will experience any problems as a result of the installation but it is a prudent practice to create a restore point prior to making any kind of system change.

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Upgrading from an earlier release

If you are installing Version 12 on a machine has an existing installation of R&R release, it is recommended that you back up any modified R&R files and then uninstall your earlier release prior to the installation of Version 12. Although the current release may be installed on a machine that contains a previous version, we do not officially support or recommend that multiple versions be present on a single machine.

What to back up prior to uninstall:

Any user function library files

RR.UDF/SYSRR.UDF for Xbase, RSW.UDF/SYSRSW.UDF for SQL

Found in R&R program folder

SQL Initialization file

RSWSQL.INI

Found in R&R program folder

Sort rule files

RRW.SRT for Xbase, RSW.SRT for SQL

Found in R&R program folder

Report Librarian and Data Dictionary data files

All files with extension DBF, CDX and FPT

Found in RL folder below the R&R program folder

Program initialization files

RRW.INI for Xbase, RSW.INI for SQL

Found in root of operating system folder

Once you have backed up your files, you can then safely uninstall your current version. Note that uninstall will not remove your RRW.INI and RSW.INI files. You can then install Version 12 using the install CD. Running the install will create a new R&R program folder and will modify any existing RRW.INI/RSW.INI files to point to the Version 12 folder.

When installation is complete, you should compare your backup RRW.INI/RSW.INI to the current version that was updated by the installer to make sure that the settings reflect your desired preferences.

You can then copy your backup versions of R?W.UDF, RSWSQL.INI and R?W.SRT to the new Version 12 folder. Note that this step is only required if you had modified these files in your earlier release.

Finally you should copy your backup Report Librarian and Data Dictionary data files to the RL subfolder in your Version 12 installation so you will have your existing Report Librarian and Data Dictionary files.

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Contents of the installation CD

Autorun.INF

ReadMe.RTF

ReportWorksInfinity.msi

ReportWorks V12 Installation Guide.PDF

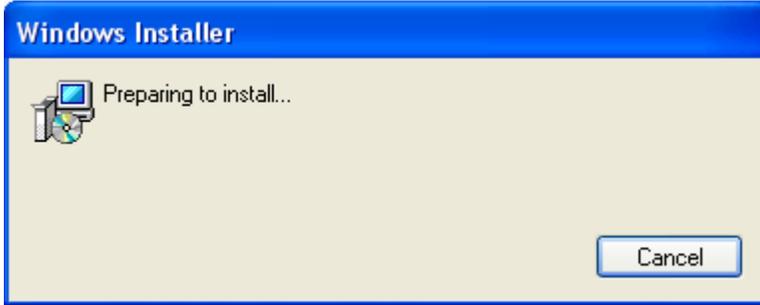
PDFDOCS folder (contains all documentation in PDF format)

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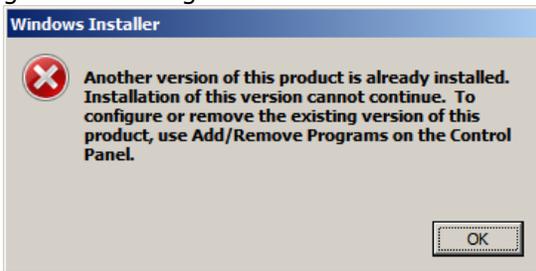
Installation Procedure

To begin the installation process, insert the ReportWorks CD into a CD drive or browse to the folder where the ZIP file was extracted. If the install program does not automatically execute, you should be able to use Windows Explorer to browse to the root folder of the CD where you may double click the file ReportWorksInfinity.msi to begin installation.

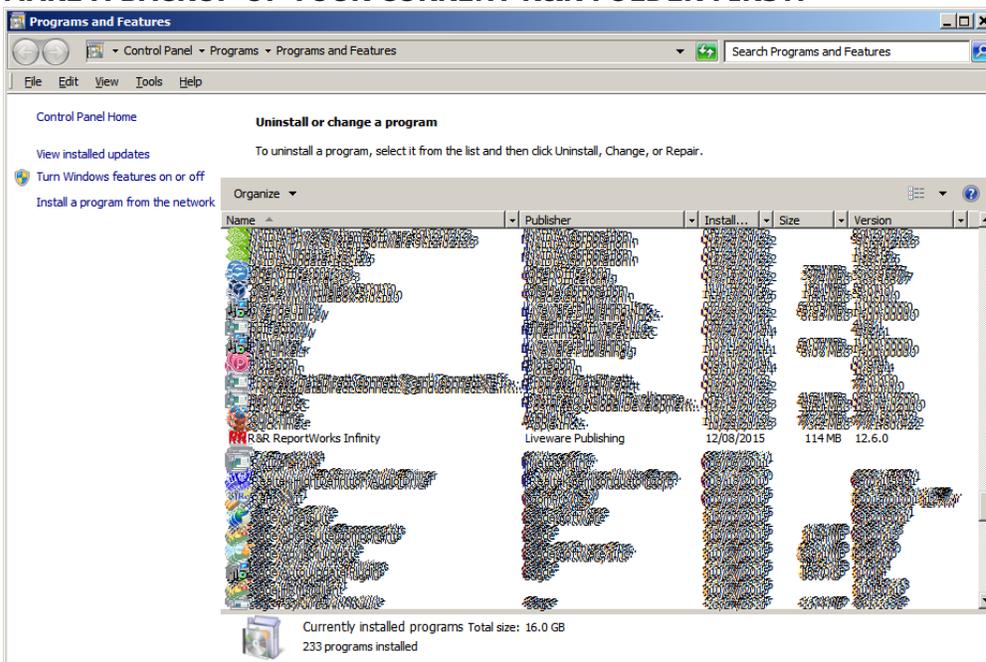
Once the install begins, the first window that displays is the initial Windows Installer.



Depending on your operating system, if R&R is already installed on your system, you may get an error right after this:



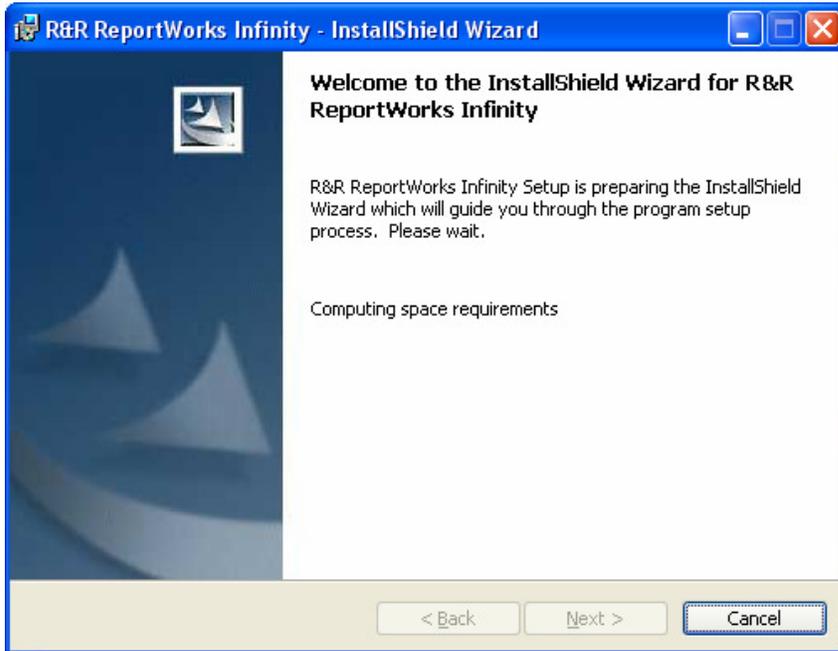
In this case, click on the search bar, type "Uninstall" and select "Uninstall a Program" under the "Control Panel" section. This window will appear. Click on R&R and select "Uninstall."
MAKE A BACKUP OF YOUR CURRENT R&R FOLDER FIRST.



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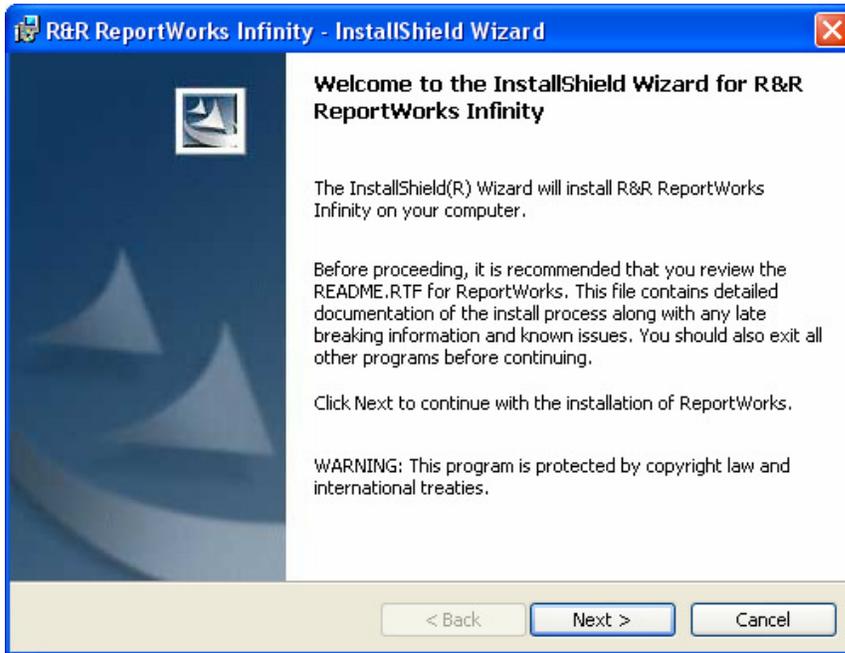
Once R&R has been uninstalled, you can go back and re-run the installation process as above.

The second window appears as the program checks for available disk space.



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The next screen presents the initial InstallShield Wizard dialog.



When you click Next, the ReportWorks License Agreement appears.



You need to read and accept terms in the license agreement and proceed to the next screen.

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The Licensing Information screen allows you to enter your **User Name** (mandatory) and **Organization** (optional). This information may already be filled in for you. If so, you can edit the default entries if you wish.

The three **License Model** choices are described below.



The screenshot shows a window titled "R&R ReportWorks Infinity - InstallShield Wizard". The main heading is "Licensing Information" with the instruction "Please enter your information." Below this, there are two text input fields: "User Name:" with the placeholder text "Your user name will appear here" and "Organization:". Underneath is a "License Model" section with three radio button options: "Local - Enter your serial number to install ReportWorks on this computer only." (which is selected), "Shared - Use a shared license key to install ReportWorks on multiple computers.", and "Viewer Only - Install ReportWorks Viewer Only. No license key is required." Below the license models is a "Serial Number:" section with four separate input boxes separated by hyphens. At the bottom of the window are three buttons: "< Back", "Next >", and "Cancel".

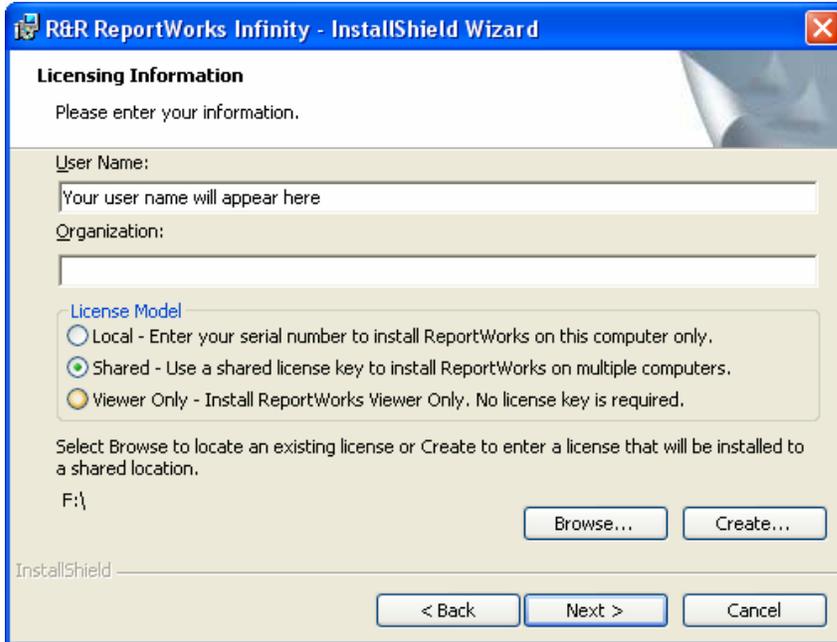
Local

The default choice is to install a Local license. This model allows you to run all ReportWorks features from this machine only. When this radio button is selected, you are given 4 boxes in which to enter the 16 digit ReportWorks serial number that was provided to you.

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Shared

Select the Shared radio button if your ReportWorks license key is going to be shared by multiple users or workstations rather than residing on a single workstation for local access only. When you select this choice, the serial number entry box is replaced by a **Browse** and a **Create** button.

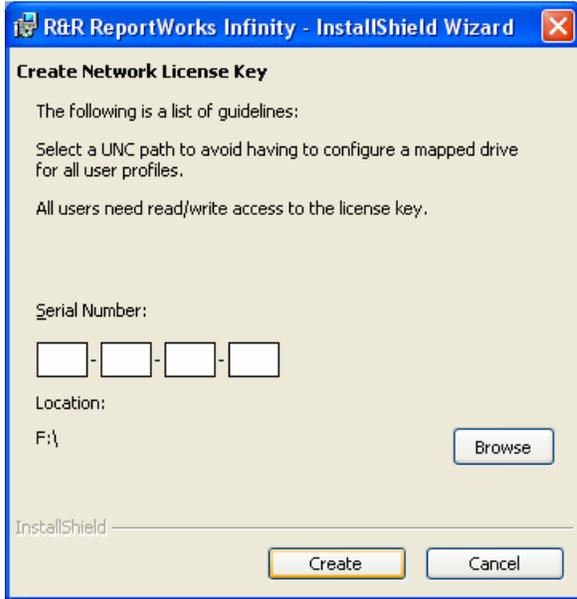


The screenshot shows the 'Licensing Information' screen of the 'R&R ReportWorks Infinity - InstallShield Wizard'. The window title bar includes the application name and a close button. The main content area is titled 'Licensing Information' and contains the instruction 'Please enter your information.' Below this are three input fields: 'User Name:' with a placeholder 'Your user name will appear here', 'Organization:', and 'License Model'. The 'License Model' section has three radio buttons: 'Local - Enter your serial number to install ReportWorks on this computer only.', 'Shared - Use a shared license key to install ReportWorks on multiple computers.' (which is selected), and 'Viewer Only - Install ReportWorks Viewer Only. No license key is required.' Below the radio buttons, there is a note: 'Select Browse to locate an existing license or Create to enter a license that will be installed to a shared location.' Underneath this note is a text field containing 'F:\'. To the right of this field are two buttons: 'Browse...' and 'Create...'. At the bottom of the dialog, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'InstallShield' logo is visible in the bottom left corner.

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First time creation of shared license key

If you are a system administrator who is installing ReportWorks for the first time and will be sharing a license(s) among users or workstations, you should use the **Create** button. This will bring you to the Create Network License Key dialog where you can enter your serial number and Browse to select the location where that license should be installed. If you have purchased a multiple user license, you will only enter the single 16 digit serial number that has been provided to you. The remaining license keys will be automatically created during the install process.



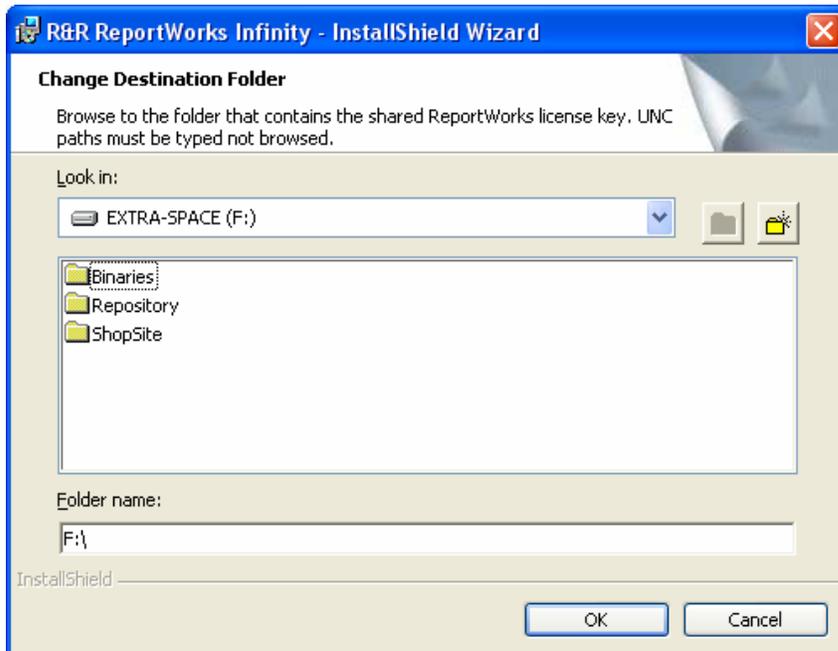
In addition to entering your serial number, you should use the Browse button to select the folder destination where the license key will be installed. Users need write privileges to the files in that are written the selected folder in order to use ReportWorks.



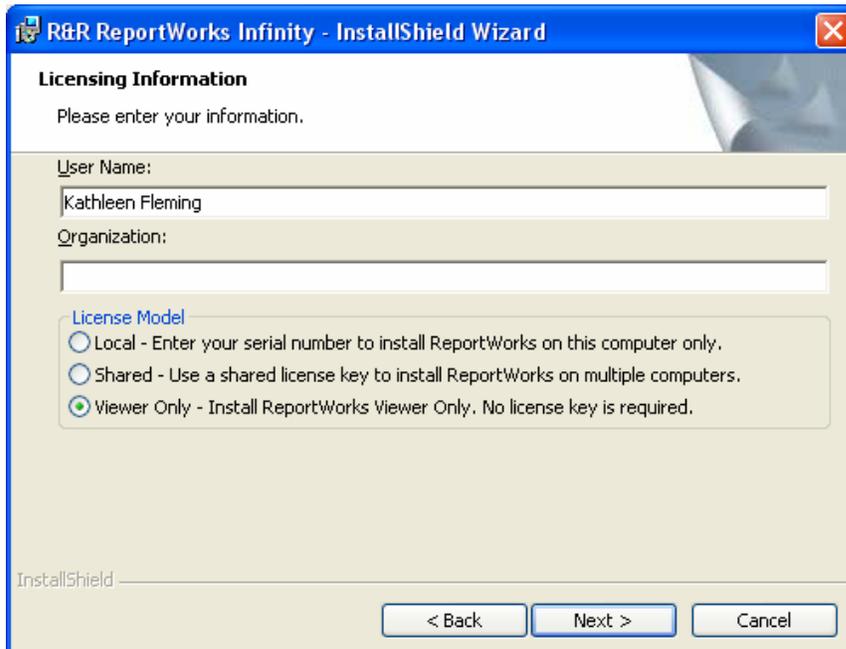
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Using a shared license key

If you are an end user who will be using a shared ReportWorks license that has been previously created in a shared location you should use the **Browse** button. This will bring you the Change Destination Folder dialog that will allow you to select the folder destination where the license key (RRW.LIC/RSW.LIC) has been installed.



Viewer Only licensing



Selecting the **Viewer Only** license model allows you to run reports that have been created in ReportWorks. No license key is required to install or use this feature.

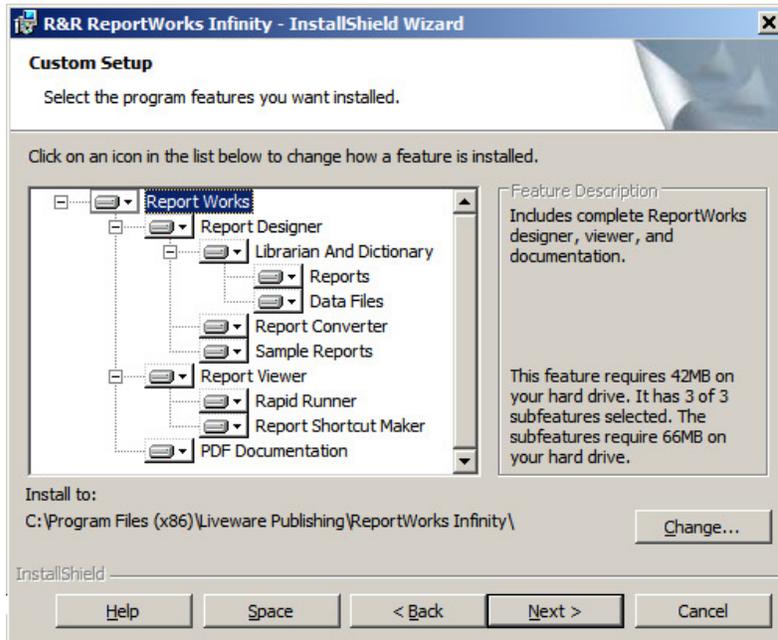
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Custom Setup

After you have selected your License Model, the Next > button brings you to Custom Setup. Here you will select the program features that you wish to install along with the Install to folder location.

Feature Selection

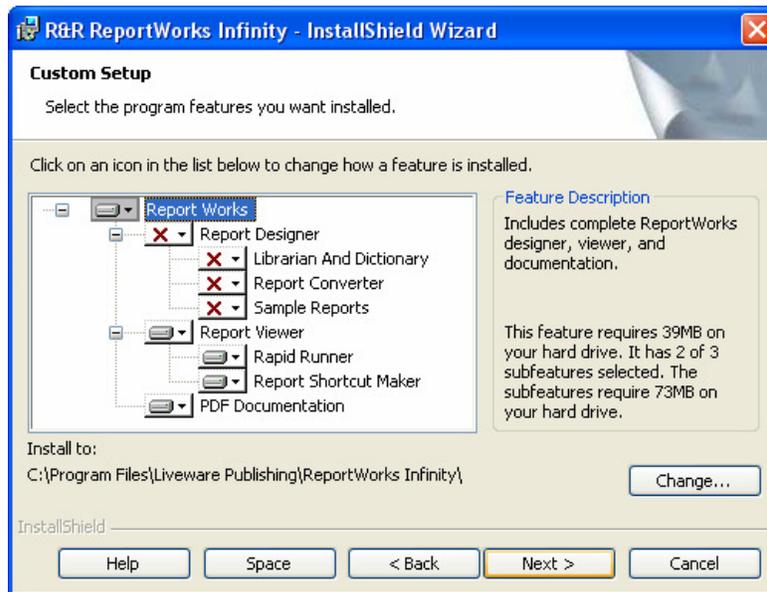
If you have used a Local or Shared license, Custom Setup will set the install state of available report features as complete install to local drive. Each of these feature descriptions is briefly described in the panel to the right when you select it from the feature tree on the left. A more detailed description is provided in the Feature Description section below.



The “Librarian And Dictionary” component has been expanded to allow more control on installing the user-changeable elements. In previous versions, if you had been using the data dictionary and / or librarian, or had modified the reports, they needed to be saved and then re-copied back following the installation. With these choices, you can elect to skip either or both of them.

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If you selected Viewer only as your license model, the Report Designer and its subfeatures are set to will not be installed.



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Custom Setup Features

Feature	Description
Report Designer	Create and run ReportWorks reports using RRW.EXE and RSW.EXE report designer executables. Requires license.
Librarian and Dictionary	Menu driven Visual FoxPro utility programs that allow you to seamlessly catalog report and database information while you work within the report designer.
Report Converter	Allows you to convert saved reports that have been created in any current or previous R&R version.
Sample Reports	A set of sample data, report and image files that illustrate a variety of report features. The SQL reports require an ODBC data source.
Report Viewer	Run saved reports using the Report viewer executables RRWRUN.EXE and RSWRUN.EXE. Also includes OCX and DLL interface files.
Rapid Runner	Menu driven utility that works with the Report Viewer to allow you to create and run report sets. A report set can include both SQL and Xbase reports.
Report Shortcut Maker	Menu driven utility to create windows shortcuts to run ReportWorks reports using the ReportWorks viewer.
PDF Documentation	The complete ReportWorks documentation set in PDF format.

If you are installing ReportWorks Designer under Windows Vista with User Account Control enabled and you wish to use the Librarian and Dictionary feature, please see the section **Vista Installation Considerations** later in this file.

Note that you can **deselect the Librarian and Dictionary sub feature** to minimize the impact of Vista's UAC and virtualization.

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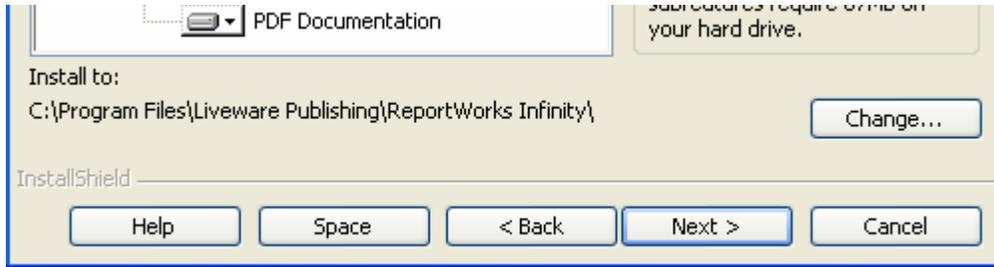
Install to Location

For all license models, the Install to location is the root folder where the program files will be installed. This folder automatically defaults to:

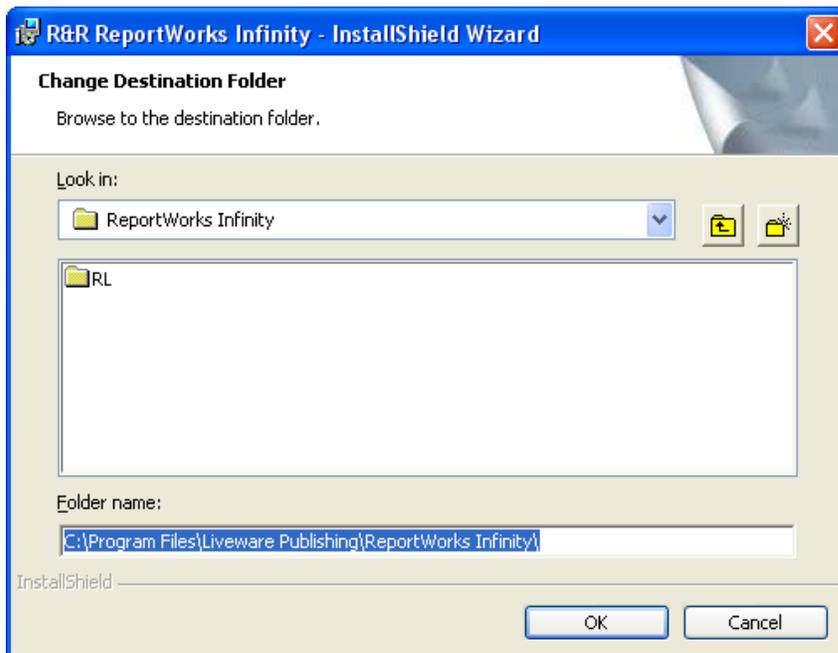
C:\Program Files\Liveware Publishing\ReportWorks Infinity\

Unless you are installing on a Vista 64 machine. In that case the default becomes

C:\Program Files (x86)\Liveware Publishing\ReportWorks Infinity\



You can use the Change button to select a different destination folder for the program files. If the selected folder does not exist, it will be created by the installer.

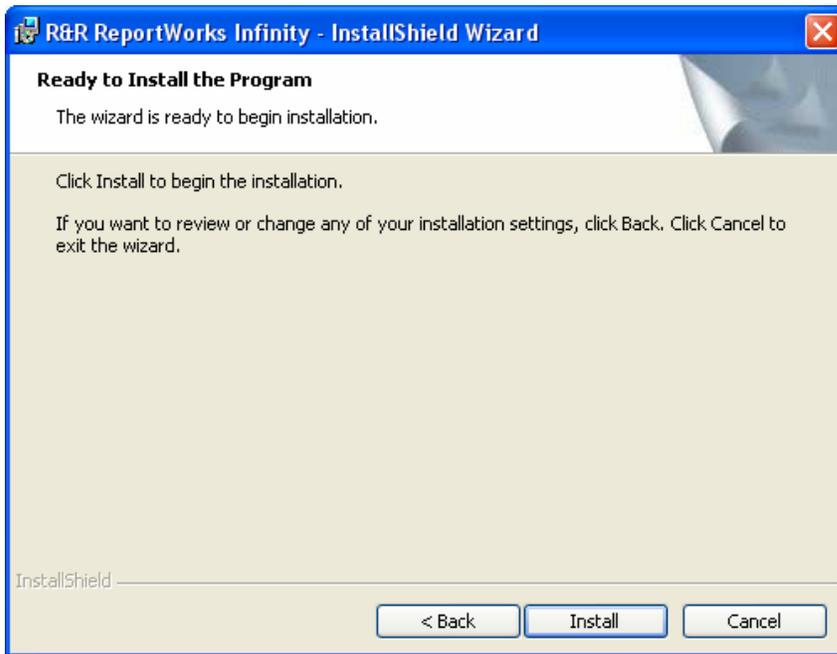


If you are installing ReportWorks under Windows Vista with User Account Control enabled please see the section **Vista Installation Considerations** at the conclusion of this document for a discussion how Vista implements the **VirtualStore** for legacy applications that are installed within the Program Files folder structure.

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Ready to Install

Once you have made your feature and install destination selections pressing Next takes you to the Ready to Install dialog.



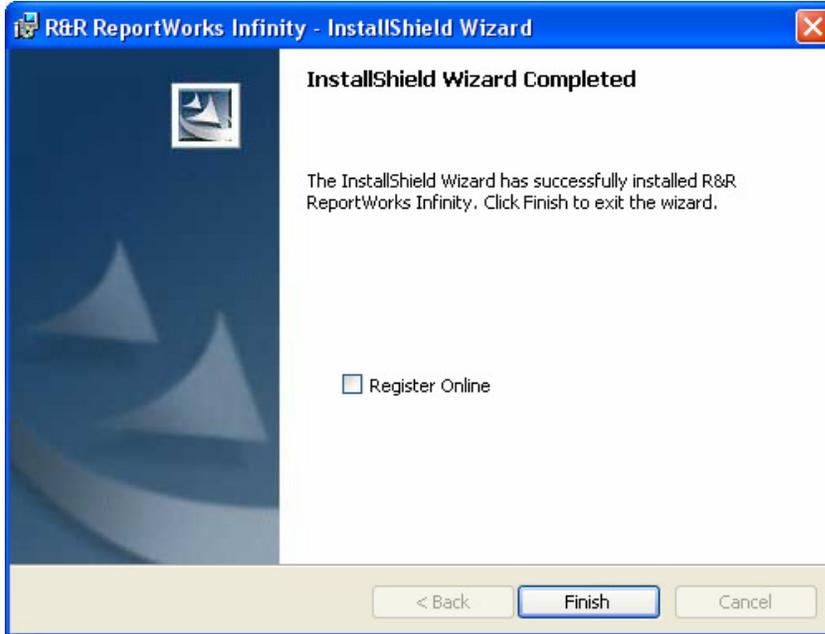
When you click the Install button, installation will begin the process of copying files to your machine and will set registry settings, file associations and Start menu program items based upon your selections. A status bar will display the progress of the installer.

If you are running under Vista, the installer will request you to log in as an administrator to complete the installation.

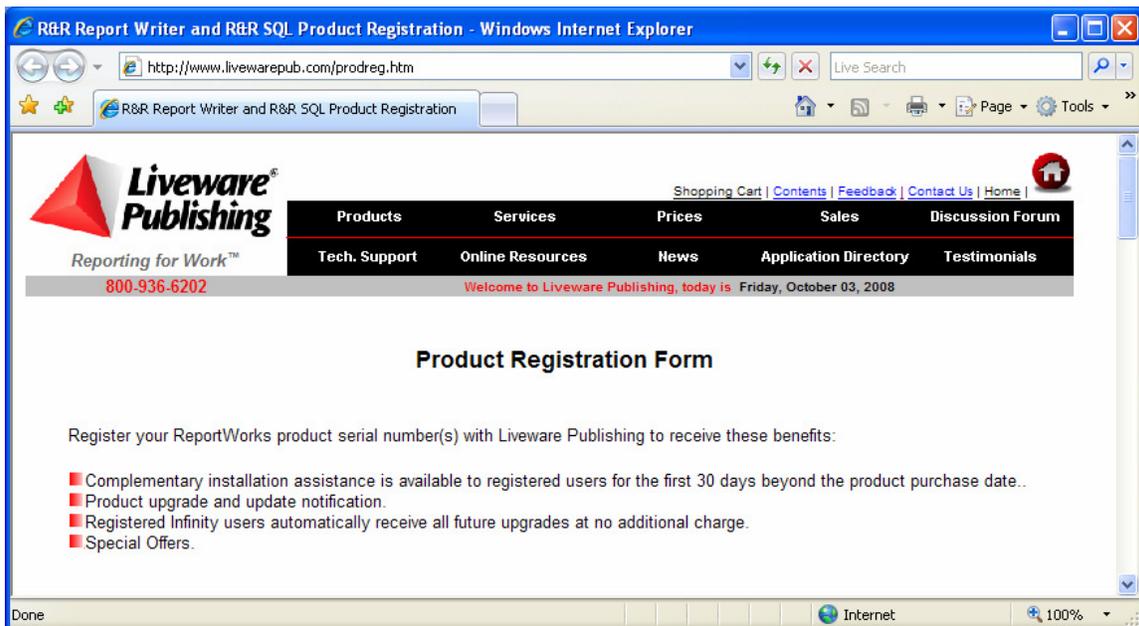
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If you entered a license key during installation, the final completion dialog will contain a Register Online checkbox.

If you had installed as an administrator, this screen will also contain a checkbox that allows you to view the installation log.



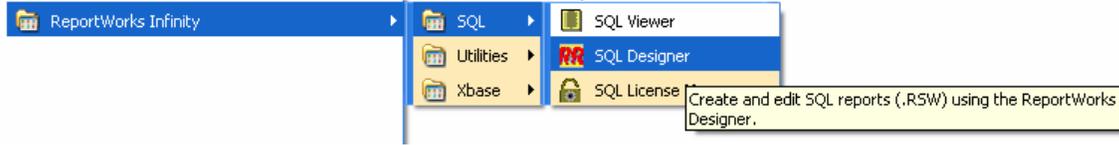
Checking the Register Online box will bring you to the Liveware website product registration page where you can register your product.



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Start Menu Programs

Once the install completes, your Start menu will contain new Program Items for the features that were selected in Custom Setup.



The chart below describes each program item by the selected feature.

Report Works Infinity	Feature	Target	Comment
SQL			
SQL Designer	Report Designer	rsw.exe	Create and edit SQL reports (.RSW) using the ReportWorks Designer.
SQL License Manager	Report Designer	rswusers.exe	Manage ReportWorks SQL Designer licenses.
SQL Viewer	Report Viewer	rswrun.exe	Run ReportWorks SQL reports (.RSW). No license is required to use this feature.
Utilities			
Data Dictionary Editor	Librarian&Dictionary	\\r\datadict.exe	View and edit the ReportWorks dictionary of table and field information.
Report Librarian	Librarian&Dictionary	\\r\rl.exe	Manage and archive ReportWorks reports.
Rapid Runner	RapidRunner	\\rapidrun\rapidrun.exe	Create and schedule report sets to automatically run ReportWorks reports.
Runtime Shortcut Maker	Runtime Shortcut Maker	rricon.exe	Create windows shortcuts to run ReportWorks reports.
Report Converter	Report Converter	rrcnvrt.exe	Convert existing reports between a variety of R&R formats.
Xbase to SQL Conversion Wizard	Report Converter	rrsqlwiz.exe	Convert R&R reports to use new or existing ODBC data sources.
Xbase			
Xbase Designer	Report Designer	rrw.exe	Create and edit Xbase reports (.RRW) using the ReportWorks Designer.
Xbase License Manager	Report Designer	rrwusers.exe	Manage ReportWorks Xbase licenses.
Xbase Viewer	Report Viewer	rrwrun.exe	Run ReportWorks Xbase reports (.RRW). No license is required to use this feature.

File Associations

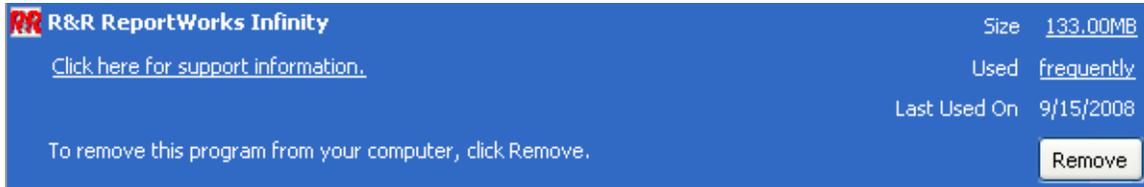
Extension	Application
RRW	RRW.EXE if Designer is installed. RRWRUN.EXE if viewer only
RSW	RRW.EXE if Designer is installed. RRWRUN.EXE if viewer only
RRS	RRWRUN.EXE if Viewer is installed.
RSS	RSWRUN.EXE Viewer is installed.
SET	RAPIDRUN.EXE if RapidRunner is installed

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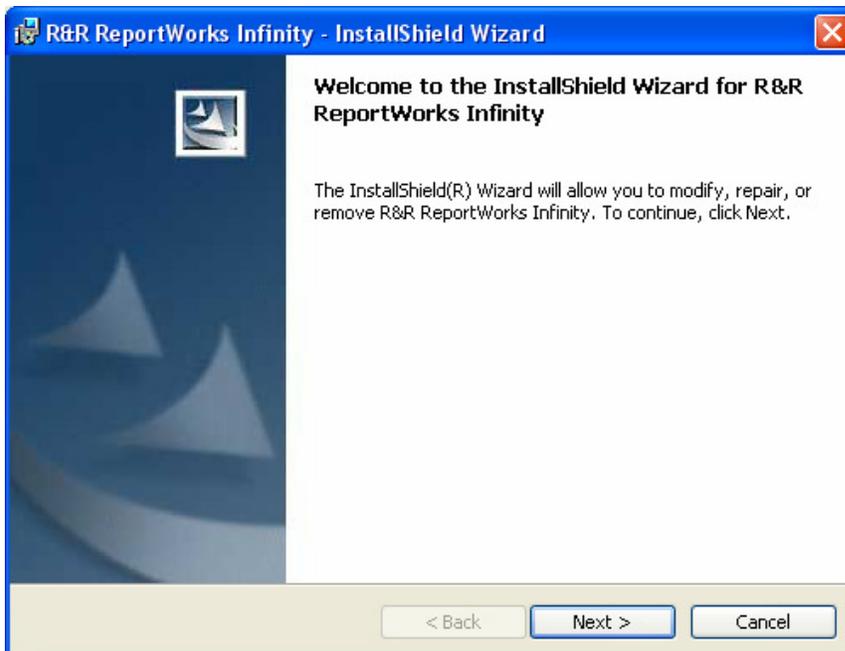
Removing ReportWorks

To remove ReportWorks from your machine, you can run the installer from the installation CD or you can use the Windows Control Panel.

In the control panel the program will be listed as R&R ReportWorks Infinity

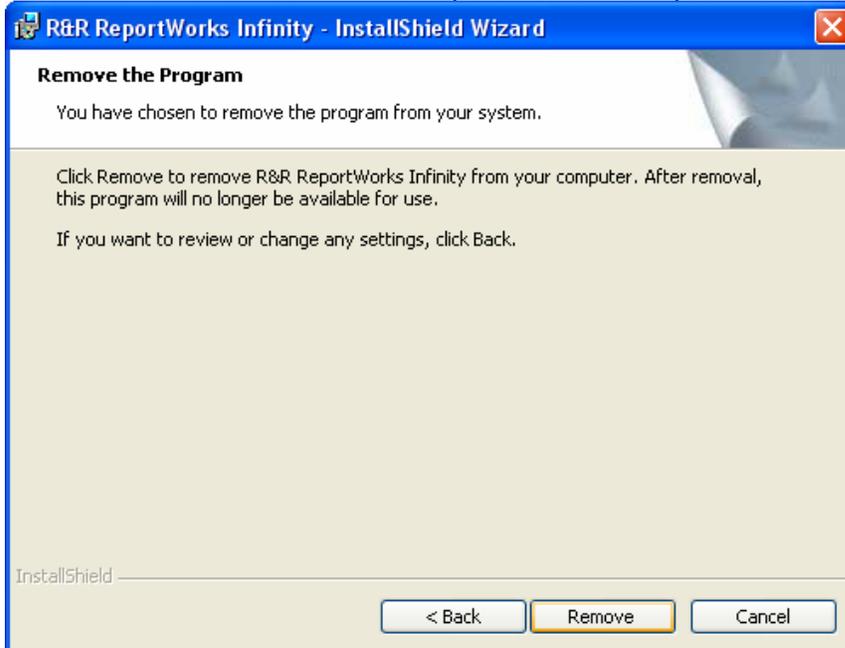


If you are removing using the Control Panel, Windows will ask you to confirm when you press remove. If you are executing from the CD, the install program will be launched with the following screen.



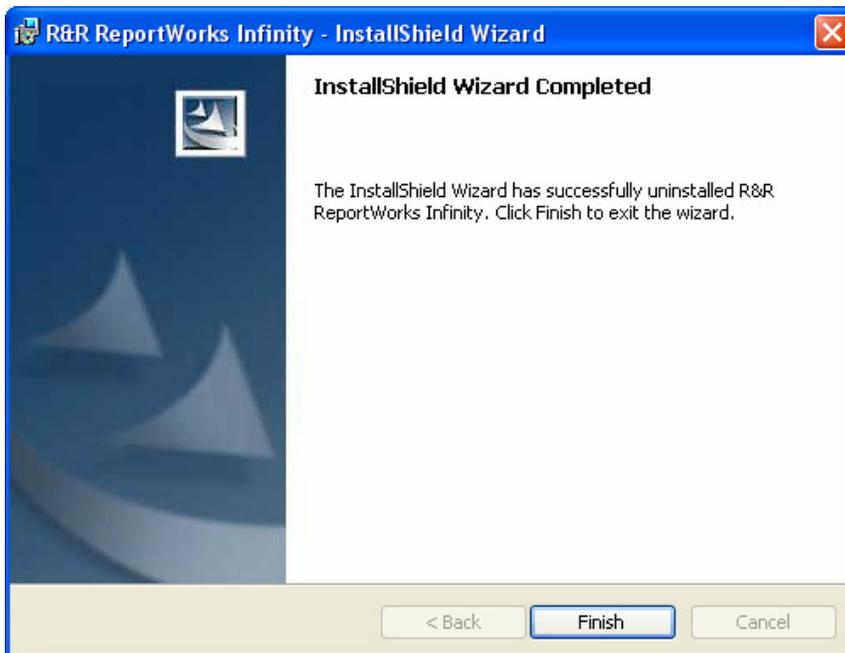
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Selecting Next brings you to the Remove the Program dialog where you can press the Remove button to remove ReportWorks from your machine.



If your installation required you to log in as an administrator, you will also need to log in as administration to remove the program.

When the wizard completes, it displays a final Finish dialog.



Removing the product will remove any files that were initially installed by the program and that were not modified during program operation. It will also remove any start menu program items and file associations.

Note that the data dictionary and librarian data files that are installed to the RL folder are not removed when you un-install.

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Vista Installation Considerations

When you install ReportWorks on a Vista machine, you need to be aware of the impact of the additional security restrictions that are imposed by User Account Control (UAC). You also need to consider the protection that Vista adds through file virtualization.

In our testing environment, the only area that we have found as problematic under Vista has been in using the Report Data Dictionary utilities. Note that you can deselect the Librarian and Dictionary feature during installation or can disable the Dictionary after the program is installed by editing the RRW.INI and RSW.INI initialization files..

The next sections give an overview of UAC and virtualization and describe the areas with ReportWorks where these features may come into play. The last section of the document describes using Report Librarian and Data Dictionary under Vista.

User Account Control (UAC)

With User Account control enabled, installation of any program requires that system Administrator credentials be supplied at the time of installation. You will need to have those credentials available in order to install or remove ReportWorks. There is not a way to bypass this requirement. Once the program is installed, it may then be run by a regular user account. Note that if shared license location was selected during installation, the user must be able to write to the LIC file that resides in that folder.

File Virtualization

Legacy applications such as ReportWorks have traditionally been designed to have full access to their install folder and subfolders and to use the root of the operating system folder as the location of INI or initialization files. With Vista, Microsoft has tightened system security significantly. Installation programs are still allowed to install files in the operating system and Program Files folders. But in Vista, when you run the installed programs that may need to write to files in these protected locations, instead of writing to the actual source, Vista create a modified copy of the files to a new VirtualStore location and from that point on, will read/write data to the VirtualStore copy of the file.

Virtual stores are located in the path
C:\users\UserName\AppData\Local\VirtualStore

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Within the Virtual store folder are subfolders for Program Files and for Windows. From the application perspective, it continues to use the source path. The redirection that is done by Vista is in most cases transparent to the application with one notable exception. If an application contains code that asks for the current path of a file that has been virtualized, the operating system returns the non-virtualized path of the file. This may cause an application to not see the most recently modified version of a file.

Microsoft has advised application developers that future versions of Vista may remove Virtual Store capability and suggest that applications be recoded so that any data that is written, be saved to a non-protected location.

Because of our extensive installed base of legacy users who may still be running on non-Vista machines, the current version of ReportWorks does not totally eliminate protected folder access.

If you are installing in a Vista environment, you will want to be aware of following instances where virtualization may impact installing and using ReportWorks.

Files that are installed in the Windows folder and are subject to virtualization

RRW.INI and RSW.INI

These INI files are the main initial files for the Report Designer and Viewer. They are created in the Windows folder when you install either the Report Designer or the Report Viewer. Vista will virtualize these files as soon as ReportWorks makes a request to update the file.

The Report Designer writes to the INI file when you make changes within the Options menu, whenever you save a report file and when you exit the program.

The Viewer reads the INI file but does not make changes to it. If you have used the Designer, then it is likely that you will have two separate RRW.INI files, the original one in the Windows folder and the current one in the VirtualStore/Windows folder.

Vista will present the virtualized copy of the file to the designer and the runtime executables so that they will see the latest changes.

Most of the changes that are required to the RRW.INI and RSW.INI are made indirectly through the Report Designer. But there are available settings that can only be made by manually editing the file in a text editor such as changing FlexLink prompting in the Xbase version or adding a DATABASE section in the SQL version. If you need to make these changes, they must be done to the Virtual store copy of the file if it exists since the Virtual store takes precedence over the actual windows copy of the file.

ReportWorks Program Folder files

If you install ReportWorks with the **Program Files** folder, Vista will virtualize any files that are added or changed within this structure. If you want to avoid virtualization, you can use the Change button in the Custom Setup dialog to select folder location that is not within Program Files for install.

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RRWLINK.INI and RSWLINK.INI

The link files are installed in the installation program folder except when a viewer only install is performed. These files contain an entry that tells ReportWorks where to find the license key file and where to write any user defined function files. Typically you would not need to edit these files after installation. If a local license installation was done, then the link settings will point to the ReportWorks program folder itself.

RRW.LIC and RSW.LIC

If you install a local license to the default Program Files location, then RRW.LIC and RSW.LIC will be virtualized to the corresponding folder within the VirtualStore. The license files are updated each time you start or exit the Report Designer. Also any user defined function files will be written to the VirtualStore.

Reports

If you elect to save a report file to a protected location (any folder with Program Files), Vista will virtualize that file to the VirtualStore.

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Data Dictionary and Librarian configuration

The DBF, FPT and CDX files within the RL folder are used to store dictionary and librarian data. When the Dictionary and Librarian are enabled, these files are updated to any time a table is selected or a report file is saved.

You can enable/disable the dictionary and librarian by editing your RRW.INI/RSW.INI initialization file.

With the [DEFAULTS] section of the file are two parameters, LIBRARIAN and DICTIONARY. These parameters are not case sensitive and may appear anywhere within the [DEFAULTS] section.

To disable Librarian and Dictionary the file will contain (new default setting for v12.6):

```
[DEFAULTS]
LIBRARIAN=OFF
DICTIONARY=0
```

To enable Librarian and Dictionary the file will contain:

```
[DEFAULTS]
LIBRARIAN=ON
DICTIONARY=1
```

In addition to enabling and disabling these utilities you can also configure the location of the librarian and dictionary data files. To do this you add an RL.INI initialization file to the RL sub folder. The RL.INI file can contain a section and parameter named RLDATA that can point to an alternative location for the librarian and dictionary data files. Here is an example of an RL.INI that sets the location of the RL data files to J:\shared\InfinityDict

```
[RLDATA]
RLDATA= J:\shared\InfinityDict
```

In addition to creation of the RL.INI file, you also need to copy all of the DBF/CDX/FPT/RRW files to the RLDATA folder.

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How the Librarian and Dictionary interface with the Report Designer

Librarian

When you save a report in the Report Designer with Librarian enabled, a file named RPTSPEC.TXT is written to the \RL subfolder. Then a Visual FoxPro cataloging program (RLCAT.EXE for Xbase, RLSCAT.EXE) is called. The catalog program then reads the RPTSPEC.TXT and updates the existing librarian data files. The Librarian utility program RL.EXE allows you to view details about the reports that have been catalogued through the Report Designer.

Data Dictionary

When you select a table in the Report Designer with Dictionary enabled, a VisualFoxpo cataloging program (DDFLDUP.EXE) to update the data dictionary data files with information about the table and its fields. If a table has been catalogued in the dictionary, when you select it in Report Designer and right click, choosing Dictionary will invoke the program Visual Foxpro program FLDVIEW.EXE and the current data dictionary entry for that field will be displayed. Unlike the Librarian, the temporary files used to update the dictionary reside the windows temp folder rather than the RL folder.

Under Vista, if the RL data files have been installed with the Program Files folder structure, files will be virtualized (have their most recent version copied to the VirtualStore folder structure) as they are modified. So you may find that some of the files are in the virtual store and others are in the actual program files folder.

What currently happens when the Dictionary is enabled under Vista

If UAC is enabled and you accept the default install location, the first time that you use the designer and select a table, the dictionary temp file does get written to the temp folder of the current user. But if you right click on a field, you get the message that the field is not in the dictionary.

When you exit ReportWorks you get a message from Vista that the program has had a problem and that the next time it is executed, it will be set to run in compatibility mode.

If you come back into the Designer a second time and create a new report, when you select the table you get a UAC elevation prompt that DDFLDUP.EXE requires admin permission. If you allow it to execute, then the dictionary is updated and you can right click the fields.

If you install to location that is not within Program Files, you still see the problem of the files not being updated on the first attempt and you get the compatibility prompt on exit. The next time you run, the dictionary is correctly updated and you do not see the UAC elevation prompt (because you are now running from a non-virtualized folder.)

We are working on finding and fixing its cause. In the current release you can:

- Deselect the Librarian and Dictionary feature during installation
- Disable the Dictionary through editing the RRW.INI/RSW.INI
- Install to a non virtualized fold

