StorageQuest.com

REFLECTOR 5.0

The Network Backup and Archive Manager

User Manual

for

RIMAGE™

Disc Publishers

Document # REFLECTOR-UM-RIM-11

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1 Welcome

Congratulations on your purchase of the StorageQuest REFLECTOR Network Backup and Archive Manager. This software system makes it easy for multiple users anywhere in a Windows network to create optical discs using a shared Rimage disc publisher.

This document will assist you with installing, configuring, and using REFLECTOR. You also have two additional sources of information:

- While you are running REFLECTOR software, you can take advantage of our online help system.
- If you have not already done so, sign up for an account at our website www.storagequest.com/Activate. This portal gives you access to updates for your software as well as providing a gateway to our technical support team.
- We invite you to send your questions to us through our online support portal, or at support@StorageQuest.com. StorageQuest is committed to making your REFLECTOR experience outstanding and welcomes your feedback.

1.1 Overview

REFLECTOR Server Edition is the Network Backup & Archive Manager specifically designed to support the complete line of Rimage CD & DVD duplication hardware, expanding their functionality to now deliver automated, reliable, cost-effective backup and archive protection for small and medium-sized businesses and the distributed enterprise.

This unique combination of software and hardware enables businesses to utilize industry standard optical media for all of its backup and archiving requirements. Features like automated backup of servers and workstations, optimization of data recording to reduce the number of discs required for a job, seamless spanning of files which are larger than a single piece of media and the automatic printing of labels for all media, provide businesses with greater ease of management and higher availability of their data.

The REFLECTOR Client Pac is an ***optional*** software application which requires the REFLECTOR Server Edition to be installed on a Rimage server network. The Client Pac is designed for users needing the power and functionality of the Server Edition at their desktops. Users can push data files to a Rimage server which is especially useful with applications such as video editing, digital imaging or any application where large amounts of data must be moved off primary storage to free up capacity for the next job. Multiple users, each with a copy of REFLECTOR Client Pac, can share a single Rimage system that serves all the computers of a networked Windows Workgroup.

The Rimage disc publisher includes one or more drives for reading and writing optical discs, a printer to label the top surface of those discs, and a robotic mechanism to

automatically feed blank discs first to a drive, then to the printer, and finally to an output stack.

Using REFLECTOR, you specify which files and folders to write to CD or DVD, either once or on a regular basis for system backup. REFLECTOR automatically creates multiple CDs or DVDs as necessary, with each disc clearly labeled.

You can also use REFLECTOR software to restore files to your computer's hard disk or network from a CD or DVD set written by REFLECTOR.

1.1.1 Parts of a REFLECTOR System

REFLECTOR consists of software that runs on one or more computers of a networked Windows Workgroup. REFLECTOR is compatible with Microsoft Windows 2000/XP and newer versions of Microsoft Windows.

Though REFLECTOR software requires Microsoft Windows, it can be used to back up network-shared drives on computers that are running other operating systems.

1.1.2 Parts of This Manual

This manual has two main parts.

- The first part tells you how to set up the REFLECTOR software
- The second part describes how to use REFLECTOR to save your data to optical disc, how to label your discs, and how to restore information you have saved.

1.2 Contacting StorageQuest

1.2.1 Mailing Address

StorageQuest, Inc.
127 Walgreen Road
Ottawa, Ontario
K0A 1L0 Canada

1.2.2 Phone and Fax

Phone: (613) 831-6919
Fax: (613) 831-1785

1.2.3 On the Web

Website:	http://www.StorageQuest.com
E-Mail (Support):	support@StorageQuest.com
E-Mail (Sales):	sales@StorageQuest.com

2 Setting Up Your System

2.1 Installing the Rimage System

Follow the instructions in the Rimage manual to install the Disc Publisher hardware and software provided by Rimage. Some Rimage models connect directly to your Local Area Network (LAN) and others connect to a computer attached to the LAN.

- If your Rimage system is self-contained, connect it to your Local Area Network (LAN) and initialize it as documented by Rimage.
- If your Rimage system requires a host computer, connect it to the host using USB or FireWire and install the Rimage server software on the host computer. Connect the host computer to the LAN.

Rimage also supplies the Perfect Image CD Designer program, which can be used to design custom labels that will be printed on CDs and DVDs by the Rimage printer.

- You can use this program to design common label layouts, and distribute the label definition files (.btw) to each REFLECTOR user.
- You can also install Perfect Image CD Designer software on each computer licensed to use Rimage and StorageQuest software.

2.2 System Requirements

To use the REFLECTOR Network Backup & Archiving Manager for Rimage, you will require the Minimum System configuration:

- Windows 2000™or Windows XP™
- 1.5Ghz Processor
- 256 MB System Memory
- Network Interface Connection
- CD/DVD Drive
- At least 10 GB Available Free Disk Space (see 2.2.1 - Disc Space Requirements for details)
- A supported Rimage Server (360i, 2000i, DiscLab, Protégé II, Amigo II, AutoStar II)

2.2.1 Disc Space Requirements

The hard disk space requirements for the Rimage Server with a single REFLECTOR user creating Rimage CDs or DVDs can be determined as follows:

Hard Disc Space Needed = (*Number of discs* + 1) * (*Size of media*)

Number of discs: The maximum number of unique discs submitted at the same time from the REFLECTOR.

Size of media: For CD this is 650-700 MB, DVD is 4500 MB

If you are low on disc space, or will be submitting very large jobs that exceed the capacity of your hard drive, you can optionally use the PowerStream mode (discussed later), which reduces the space needed to approximately:

(Number of Recording Drives) * (Size of Media).

Although PowerStream mode can significantly decrease the hard drive space needed, it increases the chance that a file might change or become unavailable before the entire set has been burned to disc; your needs will determine whether this is unacceptable.

2.3 Server Edition and Client Pac

The REFLECTOR Server Edition licensing model is hierarchical in that a specific license is required for each Rimage model that you are connecting to since REFLECTOR is licensed to a specific Rimage hardware model or models. For example; The Server Edition license for a Rimage 2000i would support all 2000i's and below models such as the 360i under this license. It would not support any other Rimage Models such as Disk Lab, Amigo II, Protégé II or the AutoStar II as they would require different licensing.

The REFLECTOR Client Pac is an ***optional*** software application and requires the REFLECTOR Server Edition to be installed on a Rimage server network. The Client Pac is designed for users needing the power and functionality of the Server Edition at their desktops. Users can push data files to a Rimage server which is especially useful with applications such as video editing, digital imaging or any application where large amounts of date must be moved off primary storage to free up capacity for the next job. Multiple users, each with a copy of REFLECTOR Client Pac, can share a single Rimage system that serves all the computers of a networked Windows Workgroup. Contact StorageQuest or your reseller to purchase additional licenses.

2.4 Installing the Software

To install REFLECTOR, load the REFLECTOR software CD into your computer's optical drive then use the Windows Explorer to navigate to the REFLECTOR folder on the software CD. Double click on the Setup.exe program icon. The Installation Wizard will guide you through the simple process of installing the REFLECTOR software.

TIP **You don't have to install the REFLECTOR Server Edition on the same server as the Rimage hardware – it can be installed anywhere on your network!**

Figure 1 illustrates a typical configuration with multiple REFLECTOR users sharing one Rimage disc publisher, which is attached to a server computer.

Figure 1: Typical REFLECTOR Configuration

2.4.1 Activating your Software

When initially installed, the REFLECTOR software operates in a trial mode for a maximum of 14 days. To continue to use the REFLECTOR software, you need an individual license for each computer that runs REFLECTOR, even if those computers share the same Rimage disc publisher. To activate your software:

- Start the REFLECTOR software on your computer.
- When the introductory screen appears, press the Return key and follow the instructions that are presented. The REFLECTOR software will calculate a Site Code that you will send to StorageQuest at www.StorageQuest.com/Activate
- After you have paid for the REFLECTOR software, enter the activation key that StorageQuest sends to you in an email. This key will be valid only for the same computer on which the Site Code was generated.

2.5 Choosing Blank Optical Discs

Be sure to use only blank DVDs or CDs that are compatible with your model of Rimage hardware. Read your Rimage documentation for details. The instructions here apply to most models but yours may have specific requirements.

2.5.1 CD or DVD

First, choose whether to save your data to CDs or DVDs.

- Some Rimage disc publishers can write only CDs. Others also write DVDs.
- A full DVD holds about as much as seven full CDs. A blank write-once DVD costs about the same as a blank write-once CD.
- Some optical drives can read only CDs and not DVDs. If you want to read your discs in a CD-only optical drive, you should use blank CDs.
- Most writeable CDs hold about 700 Mbytes, but some hold only 650 Mbytes. Use the pop-up CD Size button at the top of the REFLECTOR main window to select the correct size for the CDs you are using.

2.5.2 Write-once or Erasable

Second, choose write-once or erasable blank discs.

- Write-once blank CDs are labeled CD-R. Write-once DVDs are labeled as DVD-R or DVD+R; chose a format compatible with your Rimage hardware. Once a write-once disc has been written, there is no way to add more data to it or to reuse it for different data.
- Erasable blank CDs are labeled CD-RW. Erasable blank DVDs are labeled as DVD-RW or DVD+RW; chose a format compatible with your Rimage hardware. When an erasable disc has been written there is no way to add more data to it, but it is possible to completely erase it and use it again.
- Erasable discs cost more than write-once discs, have a slower maximum writing speed, and cannot be read by some optical drives. They are seldom the best choice for archival data, but may be useful for temporary storage.

2.5.3 Printing Surface

Third, choose printable blank discs if you will be printing labels on them.

- Rimage models with an ink jet printer can print only on inkjet-printable discs with a special matte white top surface.
- Rimage models using thermal transfer can print on shiny disc surfaces.

- Most printable discs are write-once. If you are using erasable discs that cannot be printed by your Rimage disc publisher, be sure to label them using a marker pen designed for CD and DVD labeling. Never use a ballpoint pen.

2.5.4 Loading the Rimage Disc Publisher

Most models of Rimage Disc Publisher hold a single stack of blank discs, either CD or DVD. Ensure that the Disc Publisher is loaded with the correct blank discs.

- If you have selected CD output and the Disc Publisher is configured and loaded with blank DVDs, the CD submitted by REFLECTOR will be on hold until the unit is configured to accept CDs. Use the Rimage System Manager to change the input bin settings.
- If you have selected DVD output and the Disc Publisher is configured and loaded with blank CDs, the DVD submitted by REFLECTOR will be on hold until the unit is configured to accept DVDs. Use the Rimage System Manager to change the input bin settings.

2.6 Basic Operation

REFLECTOR makes it easy to write and label CDs and DVDs using a Rimage Disc Publisher.

- You can choose files and folders to save, or you can specify simple rules to select files and folders.
- The REFLECTOR software automatically writes as many discs as your files require, and can split large files across multiple discs.
- REFLECTOR also allows you to define once which files you want to write on optical disc, and then use that definition repeatedly to save the latest versions of your files.
- You can print labels on the discs, with attractive graphics and titles to properly identify each disc. The titles can contain variable information such as the date, time, and user name or computer name.

For detailed instructions see Chapter 3 “Creating CDs and DVDs”, Chapter 4 “Backing Up and Restoring Files”, and Chapter 5, “Labeling Your Discs”.

2.6.1 Backing up Macintosh Computers

REFLECTOR is a Windows program that can back up any file or folder visible in a Windows workgroup. Many operating systems, including Macintosh OS X, are able to share files with Windows computers.

- To back up files from a Macintosh computer, turn on Windows File Sharing in the Macintosh computer's Sharing Control Panel. In the Browser panel of REFLECTOR, select Network Shares then browse to find the Macintosh computer by name. Click on its icon to see which shares are accessible.
- You will then be able to select for backup any files or folders that have been made available for sharing on the Macintosh.

Many other operating systems also provide file sharing for Windows workgroups.

3 Creating CDs and DVDs

There are two basic ways to create CDs and DVDs — by using the Backup Wizard, or by using the REFLECTOR main window.

- The Backup Wizard is the simplest way to define backup operations that you want to perform repeatedly. You can easily back up all or part of your programs and your data, using as many CDs or DVDs as necessary. See Section 4.1.
- The REFLECTOR main window is the easiest way to create a simple data CD or DVD. It also offers optional advanced features that go beyond the capability of the Backup Wizard.
- Whichever way you create your discs, it is easy to restore your files and folders, either completely or selectively (see Section 4.2).

3.1 Creating a Data CD or DVD

This section explains how to use REFLECTOR's main window (see Figure 2: Reflector Main Window) to select the folders or and files to transfer to an optical disc. Following sections describe advanced features such as scripts and filters.

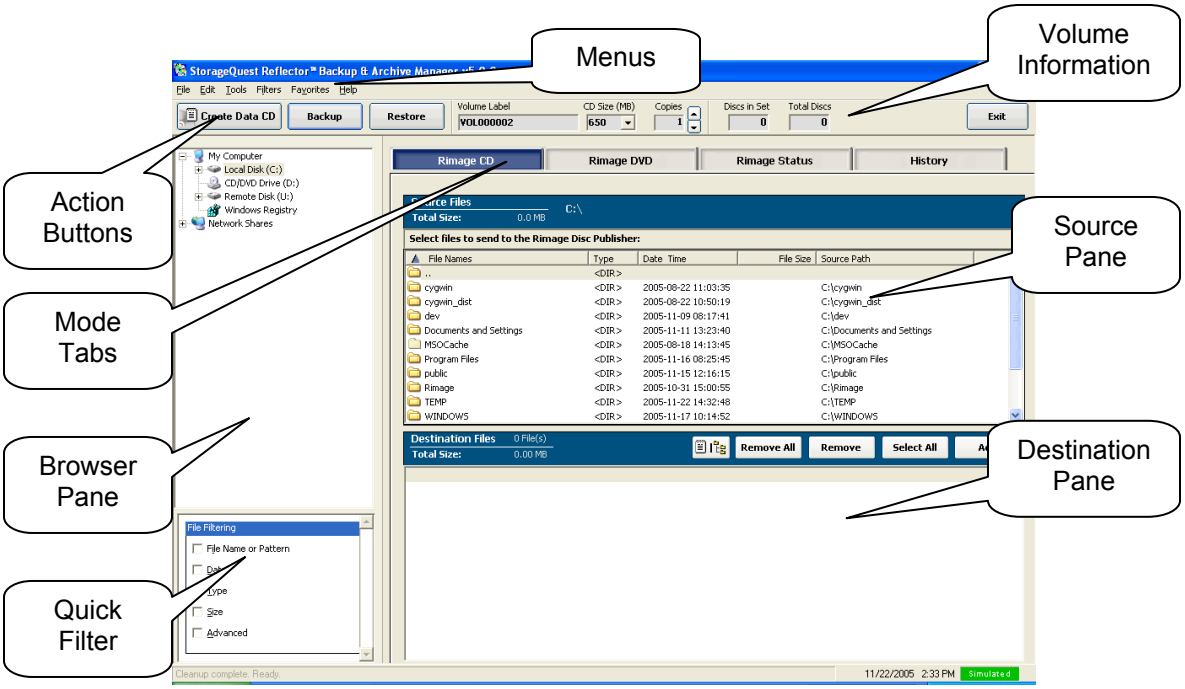

Figure 2: Reflector Main Window

3.1.1 Choose CD or DVD Output

Click the Rimage CD or Rimage DVD mode tab and ensure that the correct blank discs are loaded in your Rimage Disc Publisher. Use the pop-up CD Size button in the Volume Info to select the correct capacity for the blank discs you are using. If you are not sure of the size, use the default.

3.1.2 Select Files and Folders

In the REFLECTOR Filters menu, select “Turn Off All Filters”. See Section 3.2.2 if you want to use filters.

Simply drag the files and folders that you want to save to the Destination pane. It always lists the files that will be saved when you write your optical discs.

- To save entire folders with their contents (including files and folders inside the folders you select), drag the folders from the Browser pane to the Destination pane. The names of all files that will be saved appear in the Destination pane.
- To save chosen files from a folder, first select the folder in the Browser pane, or drag it to the Source pane. In the Source pane, REFLECTOR displays all the files and folders inside the folder you have selected. Drag the files or folders you want to save to the Destination pane, or select them in the Source pane and click the Add button above the Destination pane.
- To remove files from the Destination pane, so that they will not be saved to optical disc, select them in the Destination pane and click the Remove button above the Destination pane.

By default, REFLECTOR lists only files, not folders, in the Destination pane. However, it keeps track of the original location of every saved file, and can restore both files and folders.

If you want to view or rearrange the folder structure that will be used when creating CDs or DVDs, first click on the File / Folder toggle button, which is located just to the left of the “Remove All” button. To make changes to the folder structure, simply drag and drop files or folders within the destination list to a new location.

The Volume Information area at the top of the REFLECTOR window shows you how many optical discs will be needed to hold the files you have selected. You can choose to make multiple identical copies of each disc if you wish.

3.1.3 Label your Discs

Each of your discs can have two kinds of label: the Windows volume label that will be written to the optical disc, and a printed label on the top surface of the disc.

- Use the Volume Name field at the top of the REFLECTOR window to give each optical disc a name that will remind you of its purpose when you see the mounted disc in Windows Explorer. It may be helpful to include your name and the date in the volume name.
- Use printed labels to help identify discs for easy retrieval of their contents. See Chapter 5.

3.1.4 Publish your Discs

Click the Create Data CD button (or Create Data DVD if you have chosen DVD output) to send the files you have selected to the Rimage Disc Publisher.

In the Rimage Disc Properties dialog that appears (Figure 15) you can click in a check box to select Simulated Write. Simulation is useful when you are trying the software, but do not yet wish to write actual optical discs or print the labels.

3.1.5 Check Disc Status

Click on the Rimage Status mode tab to view the status of your disc publishing job. Your job may be in progress, or completed, or queued waiting for completion of other jobs that were submitted ahead of it.

To cancel a waiting job, right-click on its entry in the job queue and select the appropriate option in the pop-up menu.

3.2 Optional Features

The options described in this section give you more control over the discs you create, but are not necessary for basic operation.

3.2.1 Selecting REFLECTOR Options

The Options dialog, available in the REFLECTOR Tools menu, provides a wide range of control over REFLECTOR operation. Click in the left panel to select a group of options, then select options in that group using the right panel. Only a few important General options are described here.

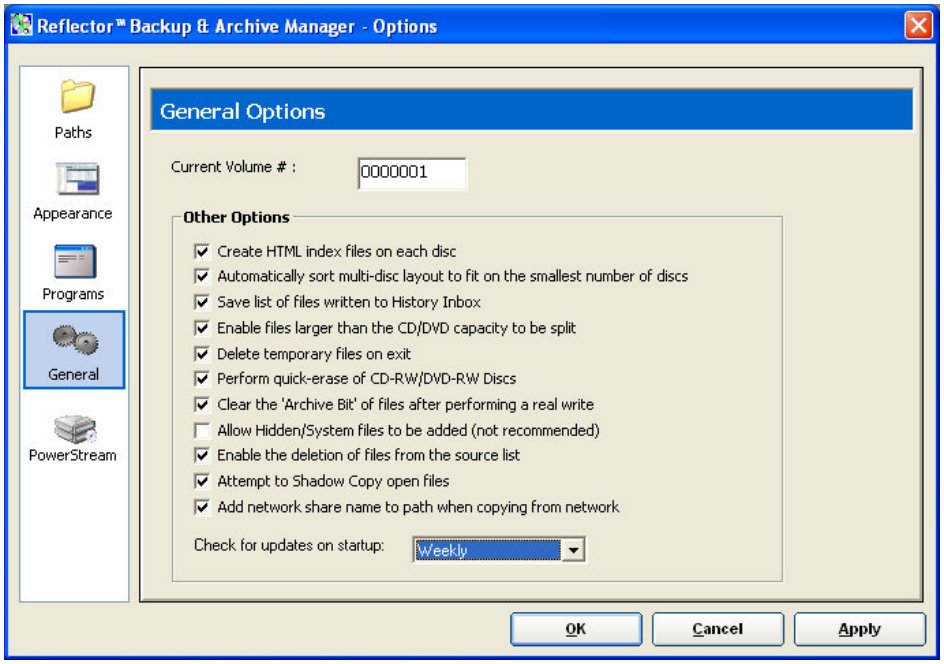

Figure 3: General Options

The default settings of these options, shown in Figure 3, are suitable for most purposes.

- REFLECTOR generates sequential disc volume numbers for all CDs and DVDs written by a particular REFLECTOR user. Current Volume Number indicates what number will be used for your next disc.
- HTML index files are essential if you wish to be able to browse the file and directory structure of your discs to selectively restore files.
- Whenever you modify any file or folder, Microsoft Windows sets the “Archive Bit” associated with that item. If you have checked this option, REFLECTOR will clear the Archive Bit of each file and folder after writing it successfully to optical disc. You can then choose to back up only changed files by specifying Archive Bit in a filter (see Section 3.2.2).

3.2.2 Filters

You can specify filters that either select or reject files or folders by name, date, type, size, or Archive Bit status. To get the most power and flexibility out of the filtering, it helps to have an understanding of exactly how they work. When you add files and folders to your set, every file or folder is checked individually against any active filters. The file or folder must match at least one include filter, and must not match any exclude filters. If the file or folder passes all the filters, then it is added to the set, otherwise it is left out.

- By default, if you do not specify any Include filters, all files and folders are considered “included”. They will then be tested against any exclude filters you may have.

- Include filters are often used to create sets that contain only a particular category of files, such as digital photos (*.jpg) or music (*.mp3).
- If you have already saved the same kind of files to optical disc on an earlier occasion, you may wish to use an Exclude filter based on date or Archive Bit to avoid saving the same files again if they haven't changed.

File filtering is available for backup jobs as well as the in the main interface, although some of the filter abilities differ between the two locations.

To create and use the most flexible filters, you will want to use the filter editor. Select the Filter Editor in the REFLECTOR Filters menu to create, modify, and activate or deactivate filters. Figure 4 shows the creation of a new filter.

- Use a descriptive name that will remind you of the purpose of this filter.
- You can choose to make the filter include or exclude either files or directories (folders).
- Filtering by name is just like filtering by name in the Backup Wizard (see Section 4.1).
- Filtering by Archive Bit Set allows you to choose only files modified since the last REFLECTOR run.
- Date filters can specify a range of dates, or a first or last date of interest.
- File type allows you to filter files by category. You can create and edit the available categories. See Section 3.2.3 for more information on file type categories.

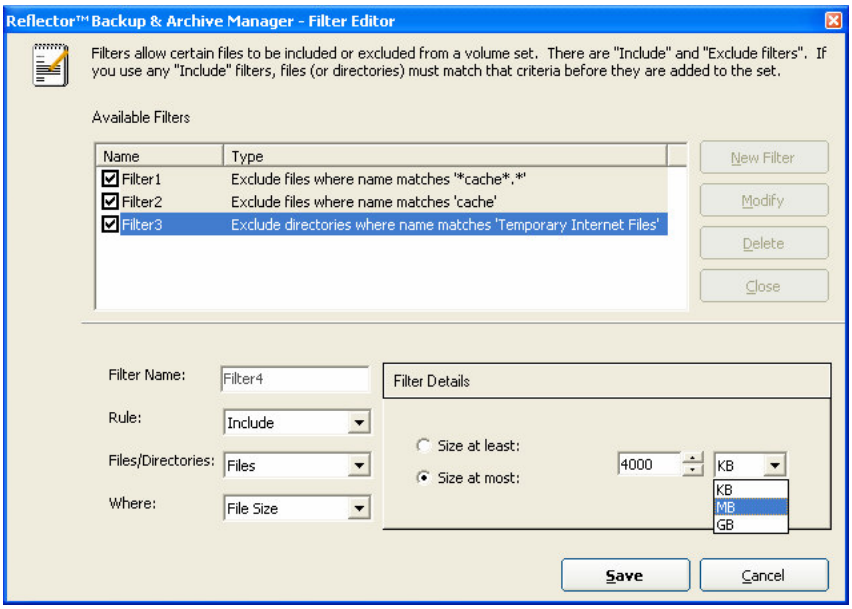

Figure 4: Adding a Filter

Filters that you create in the filter editing screen will be available for you to choose from when creating backup jobs. They can also be made active or inactive while using the main interface. An active filter is represented on the Filter menu with a checkmark, and clicking the filter item in the menu will toggle its status. Note that the filter's active status for use with the main interface is independent of its use with a backup job.

To further understand the filtering system, you might consider experimenting with it by creating some test filters and then adding some files to a set to observe what happens. For example, create a filter that includes files whose type is a Microsoft Office document, and then add your C drive to a set. When all the files are finished processing, you will notice that the destination list contains only Microsoft Office files.

In addition to the advanced filtering, you can also take advantage of the quick filter tool when using the main interface. Located in the bottom left corner of REFLECTOR, the quick filter behaves like one big include filter while adding files to a set. You can have files filtered by one or more of the following properties: File name (including wildcards), Date modified, created or accessed, Type by Category, Size, and Advanced.

When adding files to a set, if one or more quick filters are active, the file must match all of the filters before it is added. For example, if you select the size and type quick filters, setting the size to be at least 100kB and the type to be Microsoft Office, then only files that are both of these things (i.e. a Microsoft Office file that is larger than 100kB) will be added. This is the opposite behavior you find in advanced filtering where a file must match any one include (i.e. a Microsoft Office file, or any file which is larger than 100kB).

If you are using advanced filtering and quick filtering at the same time, you will find that the quick filter is applied to the files first, and any files that pass the quick filter are then passed through any currently active advanced filters. Any files that then pass the advanced filters are finally added to the destination set.

Also note that filtering does not affect files that are already in your destination set, only new files as they are added. This means that you can activate, deactivate, and update your filters as you go, to build a completely customized set. Please note that unlike advanced filters, quick filters are not recorded by the script recorder.

3.2.3 File Type Categories

A file's "type" is identified by its extension. File extensions are generally 3 characters long, and follow the last period in a file name. For example, using somefile.txt as a filename, the "txt" at the end is its extension, and this particular extension denotes a text file. File extensions don't always match their description phonetically, and Windows does not always show you the extension on a file, opting instead to show you a representative icon.

File types can also be represented by logical categories, for example, "Image Files" could contain JPEG, GIF, BMP, TIFF, PNG, and others as they are all images.

Filtering by file type category can greatly simplify making comprehensive data sets. For example, you can easily have REFLECTOR search out the entire network for all Office documents.

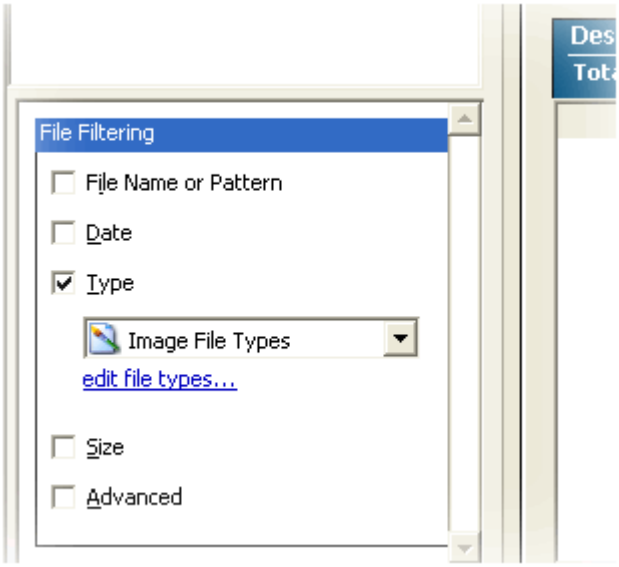

Figure 5: Quick Filtering by File Type Category

Another powerful feature of file type categories is that you can define your own categories containing any number of any file types at all. You can use this feature to create a category containing all the different types of files that are important to your organization.

You can use file type categories anywhere that you can use filtering in REFLECTOR. Just select “File Type” as your filter type, and then choose a category. Additionally, in each location where you can implement file type filtering, you will find a link to open up the file type category manager. This manager can also be accessed from the Edit menu on the main screen. From the manager, you can examine each category that is defined in REFLECTOR, and all the file types that make up that category. You can freely add and delete types from a category, and you can create or delete entire categories.

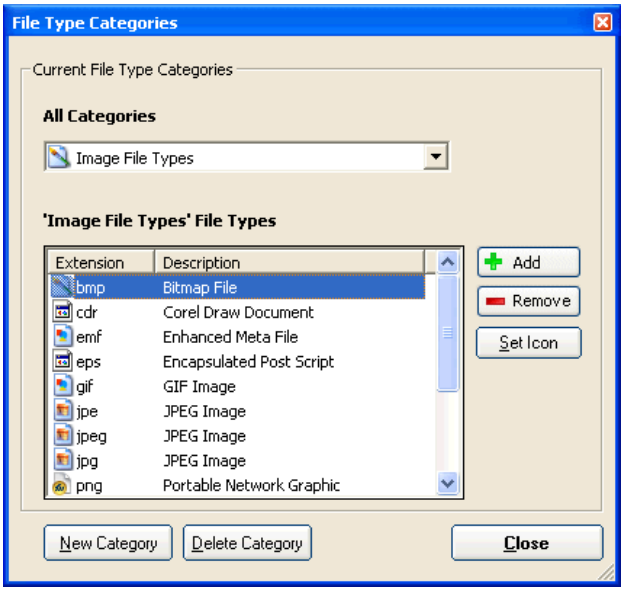

Figure 6: File Type Category Manager

When adding a type to a category, you will be shown a list of all the file types currently known to your computer. If the type you wish to add is not in that list, you can manually enter the file extension you need.

3.2.4 Scripts

You may want to save the same kinds of files and folders to optical disc on more than one occasion. One way is to use the Backup Wizard (see Section 4.1). Another way is to use the main REFLECTOR window, with its more powerful filtering capabilities, and record your actions as a script that you can use repeatedly.

To use an existing script, choose “Open Script ...” in the REFLECTOR File menu.

To create a new script, choose “Record Script” in the File menu, and then go about your business changing disc modes, adding files, and so on. As you work, you will see your actions appearing in the script recorder window. When you have finished selecting the files and folders to save and would be ready to start burning discs, end the script.

- A Script Recorder window appears, as shown in Figure 7. As you select files and folders, and specify filters, the details are recorded in the script.
- Click either the End Script button at top left, or the Stop Recording button in the Script Recorder window, to stop recording the script and save it for use.
- If you want to specify label settings and/or a description for the volumes, use the end script button in the top left, which will open the create disc dialog allowing you to set anything you like. Click Create when finished, and the script will be saved.

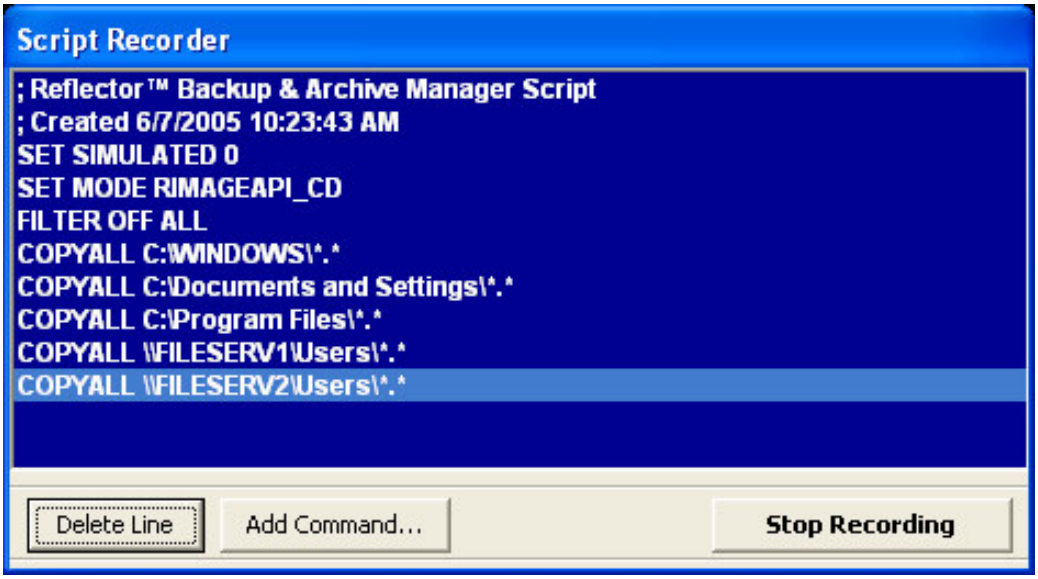

Figure 7: Recording a Script

Scripts are saved as ordinary text files, and the commands in them are simple to understand. It is easy to use any text editor such as Notepad to update a script that needs minor changes.

For more information on scripts, see Section 6 - Script Language Reference.

4 Backing Up and Restoring Files

The simplest way to back up your data is to use the Backup Wizard. The Wizard includes a convenient option to create an automatic backup schedule, such as a weekly full backup plus daily backups including only files that have been changed.

You can also select files and folders directly in the REFLECTOR main window and send them to the Rimage disc publisher as described in Section 3.1. This gives you access to a wider range of file selection filters than the Wizard offers. You can save a backup definition as a named script file to use repeatedly.

The simple procedure for restoring files is described in Section 4.2.

4.1 Using the Backup Wizard

Select the Backup Wizard using the REFLECTOR Tools menu.

On the first page of the Backup Wizard (see Figure 8), choose whether to define a new backup or run a previously defined backup. The rest of this section assumes that you have chosen to create a new backup.

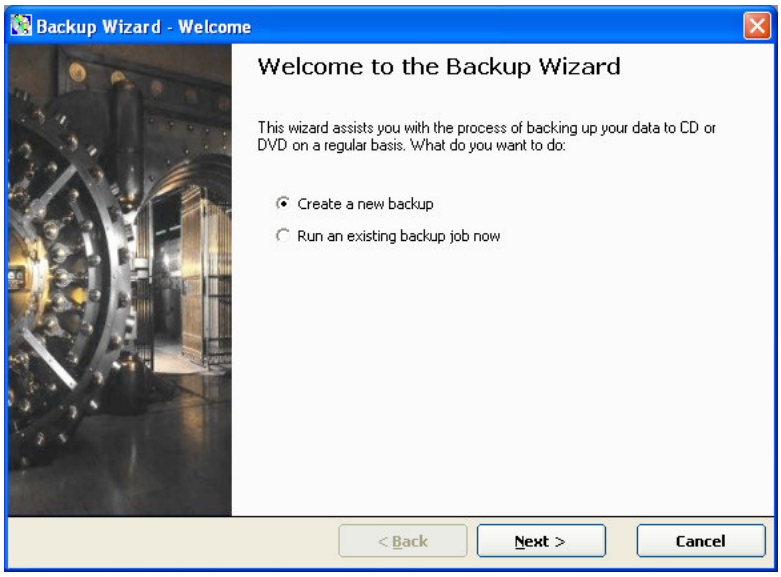

Figure 8: Backup Wizard

On the second page (Figure 9), give your new backup a name and specify its basic characteristics.

The backup name is a required field. It names the script created by the Backup Wizard so that you can choose it for future backup runs. It also acts as the Volume Title of all the discs that are created. A meaningful volume title makes it easier to work with the discs in the future.

- You can include brief shortcut codes in the name so that discs created on different occasions are easy to distinguish. Click on the Shortcuts link to display a list of available shortcut codes. For example, if you give a backup the name “My Documents %D”, the title printed on the discs will include the day on which the backup is run.

The optional Description field lets you provide more details about the purpose of this backup. Any commas in the description are removed, as it would interfere with the label merge file whose fields are separated by commas (see Section 5.2.2).

The Writing Mode is either Rimage CD or Rimage DVD. See Section 2.5.

The Print Label File is a label definition (.btw) file created by the Perfect Image CD Designer program, which is supplied by Rimage.

- A label file can include merge fields to display information that varies in different backup runs. See Chapter 5.
- StorageQuest provides the label file StandardLabel.btw, which has merge fields for Volume Name, Date, Time, Description, and User Name.

You can choose to make multiple copies of a backup. All copies of each disc are identical in both contents and label.

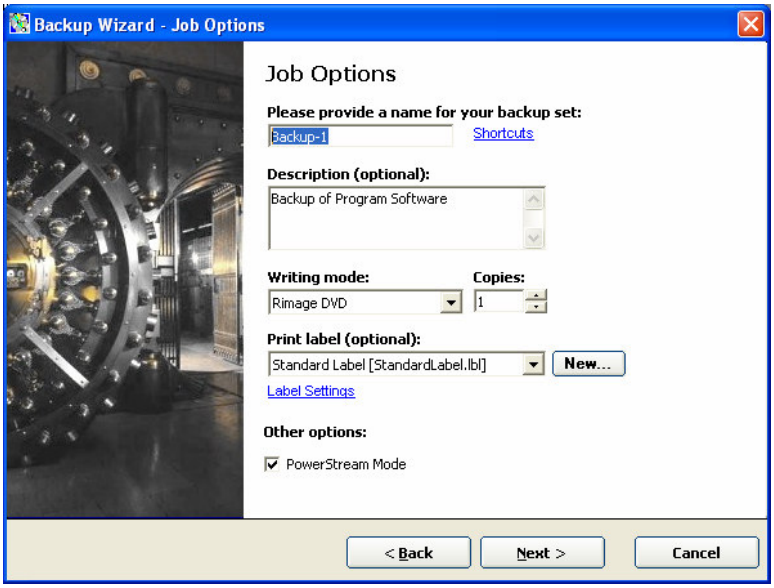

Figure 9: Backup Job Options

The File Filtering page (Figure 10) allows you to specify which files will be backed up from the folders that you select on the next page of the Backup Wizard.

Simple filtering based on file type is just a matter of selecting some, all, or none of the file type categories listed. For more information on file type categories please see Section 3.2.3.

More advanced filtering is available by clicking on the “Add Custom Filters” button. The button will be replaced by a list of all the advanced filters that you have created in REFLECTOR. You can then choose any number of these filters to be active during the backup. There is also a link to edit or create new filters, if you need to.

For a file to be included in your backup job, it must pass every filter. The file type filters are applied before the advanced filters. See 3.2.2: Filters for more information.

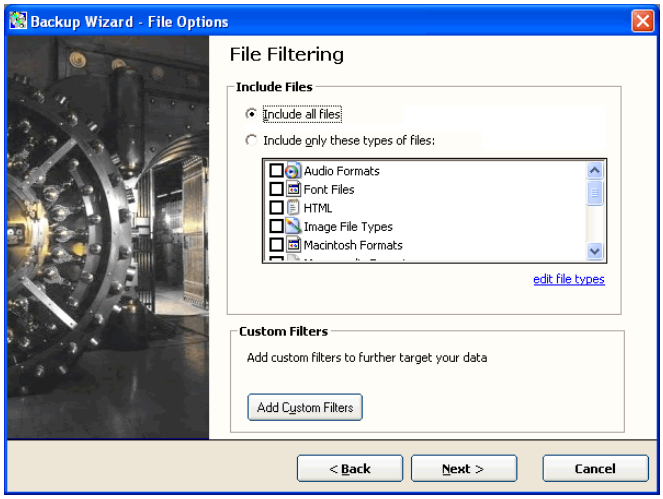

Figure 10: Filtering files for a Backup Job

The Select Folders page (Figure 11) allows you to select which folders should be saved. When you click on the check box to the left of a folder, you select all the files and folders inside that folder. You then have the option of deselecting some of them by clicking on their selection boxes.

If you have provided file filters in the previous page of the Backup Wizard, those filters are used to decide which files in the selected folders will be saved.

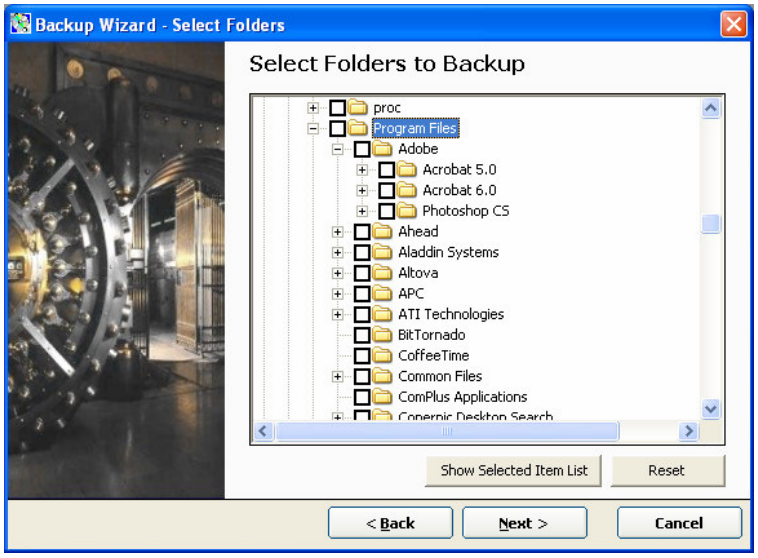

Figure 11: Backup Select Folders

Use the Backup Scheduling page of the Backup Wizard (Figure 12) if you wish to schedule your new backup script to run at regular intervals. You can select full or incremental backup at a particular time on particular days of the week.

If you select incremental backup, only files that have changed since your last backup will be stored. REFLECTOR Backup uses the “Archive” status bit of each file (a standard feature of Windows file systems) to keep track of changes.

For many computers, a scheduled backup will take place only if the computer is already running at the scheduled time. Some computers will wake automatically if they are in a low power “sleeping” mode at the time of a backup.

If you are using scheduled backups, be sure to keep your Rimage Disc Publisher powered on, connected to the network, and loaded with the right blank discs.

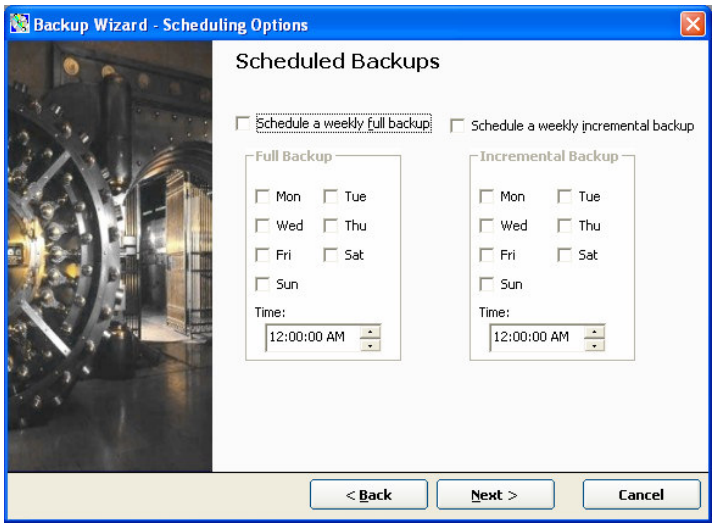

Figure 12: Backup Scheduling

The final page of the Backup Wizard (Figure 13) provides a summary of the settings that were made using the other pages. You can use the Back button to return to any page whose settings you wish to change.

You can run your new backup immediately, or wait and run it later (for example at times you have scheduled).

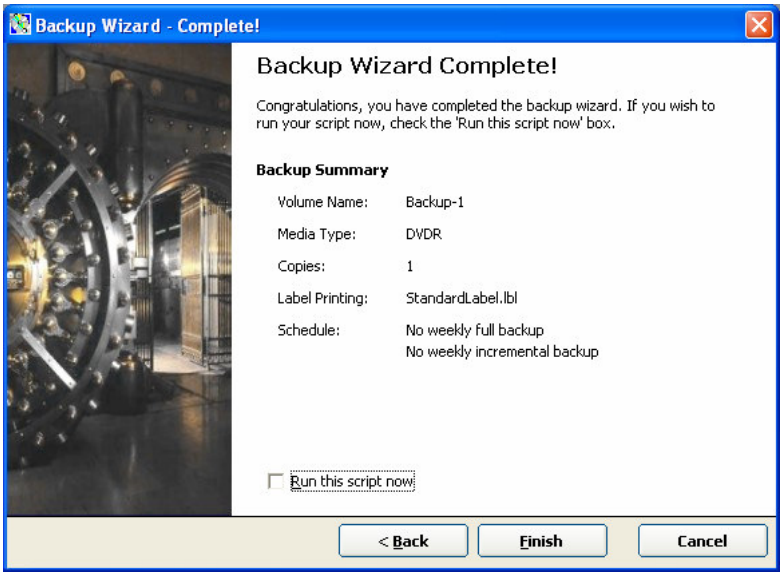

Figure 13: Backup Summary

4.2 Restoring Files

To restore files from a backup optical disc, start REFLECTOR then click the Restore action button in the REFLECTOR main window (see Figure 2). Mount the first CD or DVD of your backup set in an optical drive, then select that drive using the Source Drive drop-down selector in the Restore window (Figure 14). REFLECTOR will display some statistics for the backup disc.

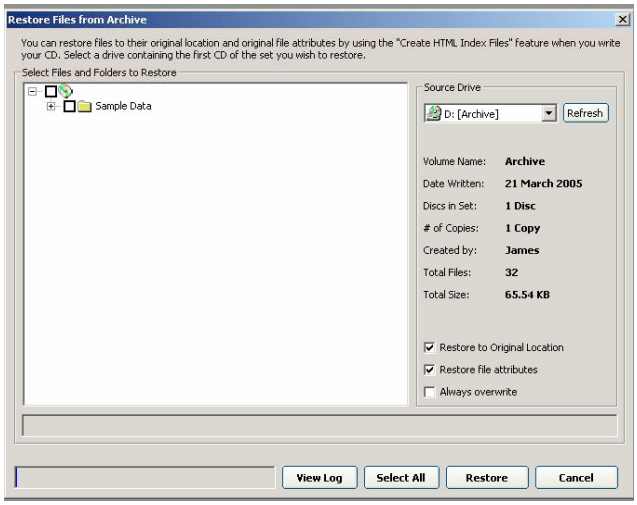

Figure 14: Restore Window

Select the files or folders that you wish to restore by clicking their check boxes in the Restore browser window. To display the files or folders inside a folder, click on the + box to the left of a folder. It will change to – and a list of contents will appear.

By default, all restored files are written to their original locations and are given the same file attributes (such as read-only) that they had when saved. You will be asked whether or not to restore if a file would overwrite a current file with the same name.

You can change the three options by clicking on their check boxes.

- If you do not restore files to the original locations, you can browse to a location where you want the files restored. Even if only one file is being restored, a complete folder path based on the file's original location is created at the restore point.
- If you do not restore original file attributes, the file is given new attributes as if you were creating it for the first time.
- If you specify Always Overwrite, any existing files with the same name will be replace by restored files without any further questions.

A plain text log file called Restore.log is written listing the files that are restored, with full path names.

TIP **You can use multiple CD/DVD drives for a faster restore**

5 Labeling Your Discs

Printed labels make it much easier to find the right discs when you want to restore files. REFLECTOR makes it easy to automatically label each disc you create, with a descriptive name plus specific details such as your name and the date and time when you created the discs.

You define a printed label in two steps:

- First, define the basic layout of the label. This includes any background image or design, any additional graphics such as a corporate logo, and any fixed text that should appear on all labels of this kind. The layout also includes placeholders for any variable text.
- Second, define the variable text that describes this particular disc. REFLECTOR provides a wide choice of information that you can insert into your disc labels to identify the contents.

You will typically repeat these two steps a few times as you decide what variable text you want to include, where it fits best on the label, and how you want it to look. Then, having defined your label layout, you can continue to use it over and over.

A standard label file has been provided for you. It may be faster to edit this file than to design one from scratch.

5.1 Defining a Label Layout

To create or edit an initial label layout, use the program Perfect Image CD Designer, which is supplied by Rimage. Documentation for CD Designer is included on the Rimage software CD. It is very simple to add graphic elements or fixed text to a label, and only slightly more difficult to add variable text.

StorageQuest provides a basic label design for simple backups. It is important that you use the correct file for your Rimage printer. ,StandardLabel480i.btw is to be used with the Rimage 480i printer, StandardLabelEverest.btw and StandardLabelPrism.btw are also provided to provide compatibility with the Rimage Everest and Prism printers You can use the label file unchanged, or modify it, or create a completely new design.

5.2 Defining Variable Text Fields

To start the process of defining your label information in REFLECTOR, click the Create Data CD button (or Create Data DVD if you are using DVD media); see Figure 2 . If you are using the Backup Wizard, start a backup.

5.2.1 Basic Disc Property Settings

You will then see the Rimage Disc Properties dialog (Figure 15).

- The Volume Name will be the one that you already set up in the REFLECTOR main window, or in the Backup Wizard. You may alter it if you wish.
- You may enter a brief Description for this set of discs. Any commas will be removed because they would interfere with the label file.
- Click on the drop-down list to select from any REFLECTOR Label File (.lbl) that you previously created. This file contains a list of the variable information needed for a particular kind of label. You can define as many of these files as you wish; typically, you will have at least one to match each label layout that you define with CD Designer.
- If you are still working on the layout of your label, click the checkbox for Simulated Write so that the CD or DVD will not actually be written.
- The PowerStream mode reduces the caching space needed for the job. This can be useful for very large jobs where it is infeasible to cache 100's of GB of data before publishing. You should only enable this option if you are certain that the files you are publishing will not change or become unavailable during the entire publishing process, or if it does not matter if they do.
- The Copy Index File and Optimize Layout checkboxes should normally remain checked.

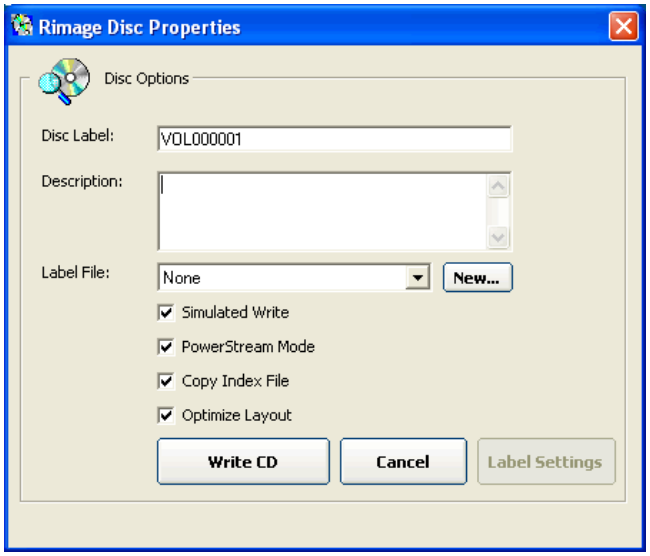

Figure 15: Disc Properties Dialog

5.2.2 Selecting Variable Information

Click on Label Settings to edit the field list for an existing label file that you have chosen. Click New… to create a new label file. In either case, the Label File Editor window opens (Figure 16).

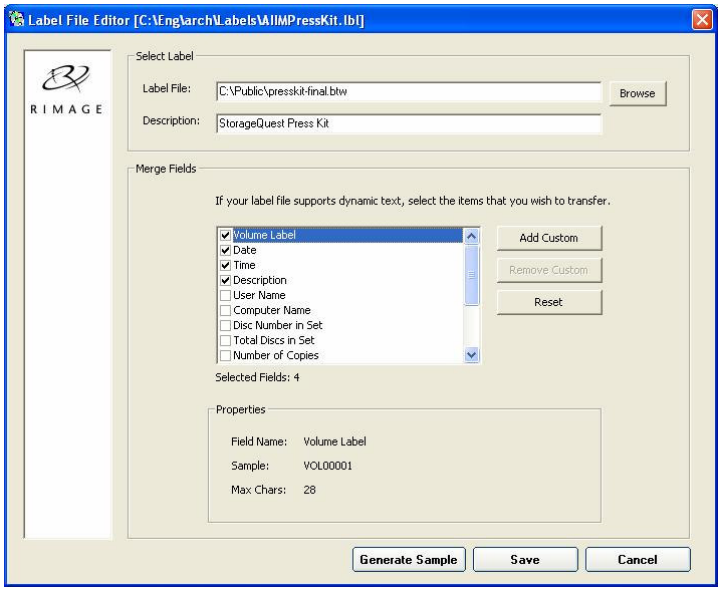

Figure 16: Label File Editor

Select a Rimage label layout file (.btw) that is to be used with this REFLECTOR label content list. Use Perfect Image CD Designer to create or edit the layout file.

The Description field describes this label contents file, to help you choose the proper one in the Disc Properties dialog (see Section 5.2.1). You may wish to give it a name similar to the name of the label layout file that it uses.

Click the check boxes beside the variable data items that you want to include in your label. There are fifteen standard items available:

1. Volume Name
2. Date
3. Time
4. Description
5. User Name (Windows Login name)
6. Computer Name
7. Disc Number (ranging from 1 to set size)
8. Set Size (number of discs)
9. Number of Copies made.

10. Number of Files
11. Number of Folders
12. First File Name
13. Last File Name
14. Size of CD or DVD
15. Media Type (CD or DVD)

In addition, you can define up to ten custom fields. For each of them you can type in a default value now, and you will have an opportunity to define a new value each time that you create a set of discs. You can specify a maximum number of characters for each custom field, to ensure that it will fit on the label.

This REFLECTOR label file defines a list of “merge” fields that will be passed on to the Rimage software when discs are being written. You will also need to use the CD Designer program to indicate where each of these fields should go on your label. It is usually helpful to click the Generate Sample button, which will create a sample merge file that you can use with CD Designer (see Section 5.2.3) to position the fields in the label. Save the sample “merge.txt” file in an easy-to-remember place such as your desktop.

Click the Save button to save your REFLECTOR label contents (.lbl) file for future use.

5.2.3 Positioning Variable Text Fields

For each REFLECTOR run, you specify a REFLECTOR label file (.lbl) that tells REFLECTOR which label layout file to use, and which variable items to pass on in a “merge” file for inclusion in the labels.

If you use the REFLECTOR Backup Wizard to define what will be written to disc, you can also use special shortcut codes to specify some variable data values as part of the volume name that is displayed by Windows Explorer whenever the optical disc is mounted in a drive; see Section 4.1.

To position your variable text fields in a label, first use the Perfect Image CD Designer program (provided by Rimage) to design the fixed part of your label. You may wish to use the provided file StandardLabel.btw as a starting point.

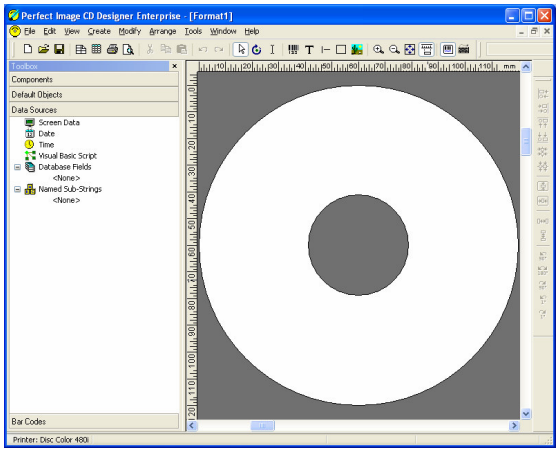

Figure 17: CD Designer Main Screen

To add variable fields to your label, choose Database Setup in the File menu and follow the steps of the Database Setup Wizard as described below.

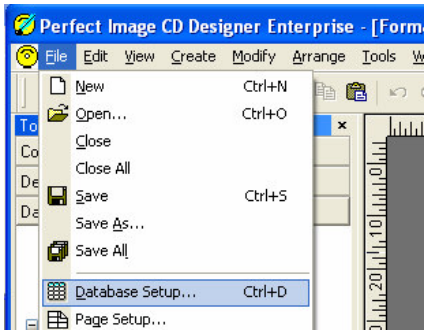

Figure 18: Database Setup

CD Creator calls the REFLECTOR -generated file merge.txt a “database”. It is in fact a plain text file with one line of text for each disc. Each line of text consists of one or more “fields” such as title, date, and disc number, separated by commas. You can think of it as a table of information. Each column in the table contains a particular kind of information, and each row in the table contains all the data for a particular disc. Some columns such as Date have the same value for every disc in a set; others such as the Disc Number have a different value for each disc.

Click the Next button on the first Database Setup screen (Figure 19)

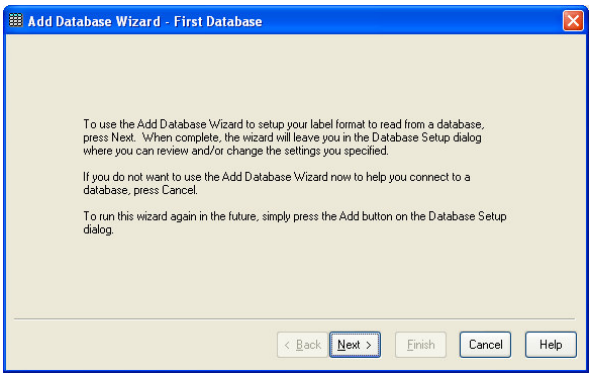

Figure 19: Database Wizard 1

On the second screen specify the type as Text File (Figure 20) and click Next.

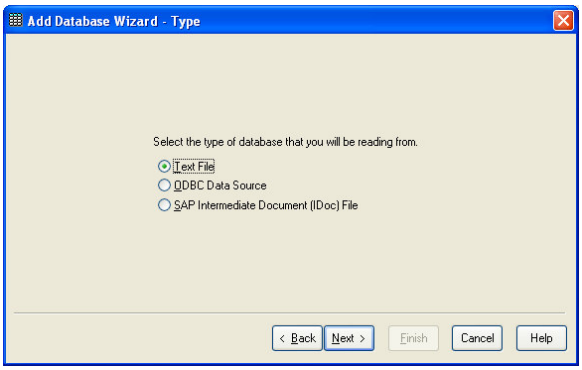

Figure 20: Database Wizard 2

On the third screen (Figure 21), select the sample merge.txt file that you created in REFLECTOR (see Section 5.2.2) and click Next.

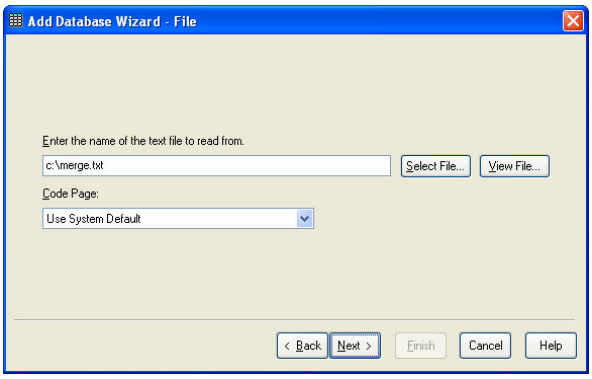

Figure 21: Database Wizard 3

On the fourth screen (Figure 22) select the Delimitation Type as Comma using the pop-up menu of choices, then click Next.

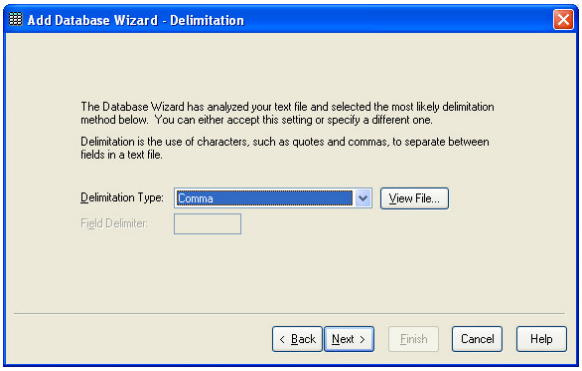

Figure 22: Database Wizard 4

On the fifth screen (Figure 23) click the Yes choice to indicate that the merge.txt file has a header line with the names of the fields, then click Next.

Figure 23: Database Wizard 5

The final screen of the Database Setup Wizard now lists the fields in your merge.txt file (Figure 24).

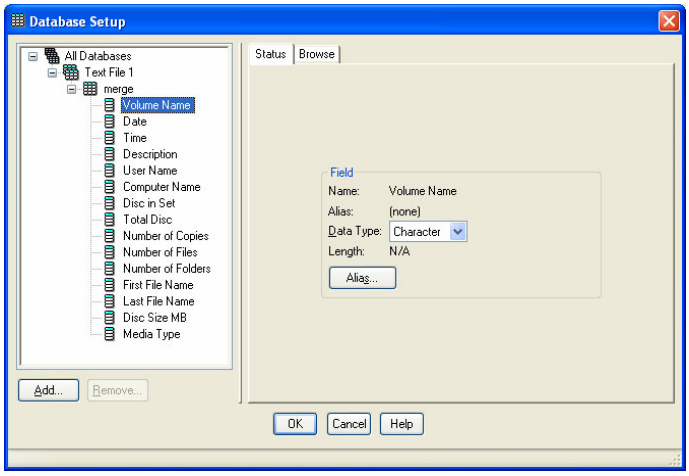

Figure 24: Database Wizard Completion

On this screen, turn off the “First Record Has Field Names” option, as regular merge files will not contain a header. Select Text File 1, and **uncheck the “First Record Has Field Names” check box** (Figure 25). Then click the OK button to complete the database setup.

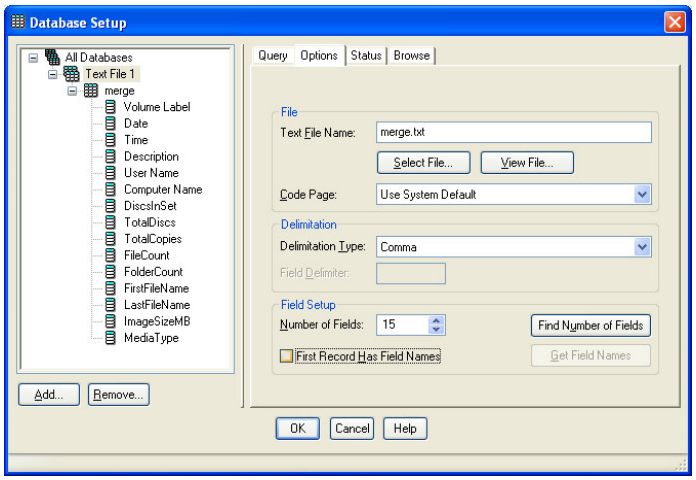

Figure 25: Removing Header Line

The CD Designer now knows what variable information fields you plan to use in this label, and displays them as Data Sources in its main window (Figure 26).

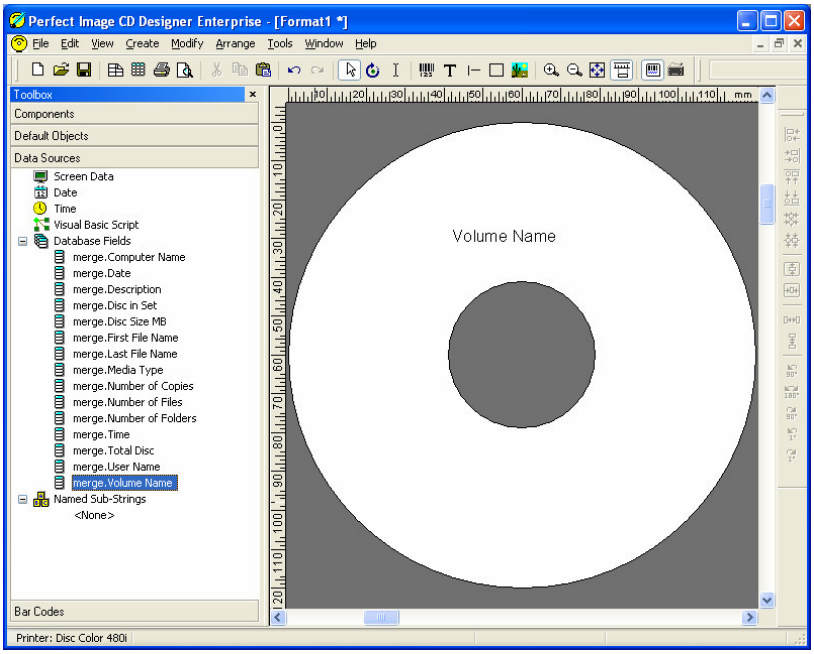

Figure 26: Adding Merge Fields to Label

The final step is to position the fields in the label. Drag each field from the Data Sources panel on the left to the place in the label image where you want it to be printed. You can use the CD Designer's tools to select a suitable font and size for each item. In the example, the Volume Name field has just been positioned.

Use the Print Preview button to check the appearance of the label, then choose Save in the CD Designer's File menu to save your label definition.

Verify that your REFLECTOR label contents file (see Section 5.2.1) names this CD Designer label file as its associated label layout file.

You should delete your original merge file (C:\merge.txt) so that Rimage does not use this sample file when creating your discs.

6 Script Language Reference

6.1 Script Files

There are two types of script files used by the REFLECTOR software. The first is known as a “File List” file which contains a plain-text listing of files to add to your CD or DVD set, one per line. These files have the extension **.fls**

The second type of script files utilize the REFLECTOR scripting language and have the extension **.oam** (recorded scripts) and **.oab** (backup scripts).

You can launch the REFLECTOR software by double-clicking on any of these three file types. The software will execute the script or load the file list.

6.2 Script Commands

A script file (.oam or .oab) contains a series of script commands, one per line. The following commands are available for use when writing script files:

Command	Description
; <some comments>	Lines beginning with a semi-colon are treated as comments. They are ignored by the script compiler.
SET VOLUMELABEL <label>	Sets the name of the disc set. The shortcut codes for inserting the date and time can be used (%D for day, %M for month, %Y for year, %h for hour, %m for minute and %s for second).
SET SIZEMB <size>	Sets the size of the media in megabytes. CDs should be set to 650 MB and DVDs to 4500 MB
SET COPIES <number of copies>	Sets the number of copies to created. If this command is not specified the default number of copies will be used.
SET SIMULATED <1 | 0>	Set simulated writing on (1) or off (0).
SET MODE RIMAGEAPI_CD	Sets the current writing mode to Rimage CD.
SET MODE RIMAGEAPI_DVD	Sets the current writing mode to Rimage DVD.

SET DESCRIPTION <desc>	Set the description of the current disc.
SET PRINTLABEL <label>	Sets the print label to be the specified .lbl file in the Labels directory. If <label> is left blank, no label will be printed.
SET POWERSTREAM ON	Activates PowerStream Mode
SET POWERSTREAM OFF	Deactivates PowerStream Mode
SETCUSTOM <id> <value>	Set custom field (0 – 9) of label to value
COPY <"file or directory">	Copy the file or directory, not including subdirectories. Wildcards can be used.
COPYALL <"file or directory">	Copy the file or directory and all subdirectories. Wildcards can be used.
COPYTO <"source"> <"dest">	Copy the source file to the destination path.
COPYALLTO <"source"> <"dest">	Copy all files and directories in source to dest
REMOVE <file>	Removes the file from the destination list.
FILTER ON <filter>	Activate the specified filter. For example, FILTER ON Include all files where name matches *.doc
FILTER OFF <filter | ALL >	Deactivate the specified filter or ALL filters.
RUN <command>	Run the specified DOS command line.
MSG <message>	Display specified message in a message box
WRITE	Create the CD set.
EXIT	Exit the program.
MOVE <"source"> <"dest">	Move file in disc layout from source to dest
MOVEALL <"source"> <"dest">	Move folder and subfolders from source to dest
IMPORTFLS <"file list">	Import file list (*.fls)

Use the script recorder to record your actions and build scripts for you!

7 REFLECTOR Information

This page is provided for your convenience, to record your REFLECTOR serial number and notes on any questions you may wish to ask StorageQuest.

7.1 REFLECTOR Information

Your REFLECTOR serial number is located inside the CD case. You may wish to record it here.

Serial Number: _____

7.2 Contacting StorageQuest

StorageQuest, Inc.
127 Walgreen Road
Ottawa, Ontario
Canada K0A 1L0

Phone: (613) 831-6919
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Website: http://www.StorageQuest.com
E-Mail (Support): support@StorageQuest.com
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7.3 Notes