



Sun StorEdge™ Resource Management Suite Version 6.0.1

File Reporter
Configuration and Installation Guide

Version 2.0.2

Sun Microsystems, Inc.
901 San Antonio Road
Palo Alto, CA 94303-4900 U.S.A.
650-960-1300

Part No. 816-4727-11
October 2002, Revision A

Send comments about this document to: docfeedback@sun.com

Copyright 2002 Sun Microsystems, Inc., 901 San Antonio Road, Palo Alto, CA 94303-4900 U.S.A. All rights reserved.

This product or document is distributed under licenses restricting its use, copying, distribution, and decompilation. No part of this product or document may be reproduced in any form by any means without prior written authorization of Sun and its licensors, if any. Third-party software, including font technology, is copyrighted and licensed from Sun suppliers.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, AnswerBook2, docs.sun.com, and Solaris are trademarks, registered trademarks, or service marks of Sun Microsystems, Inc. in the U.S. and other countries. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc.

The OPEN LOOK and Sun™ Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a non-exclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees who implement OPEN LOOK GUIs and otherwise comply with Sun's written license agreements.

Federal Acquisitions: Commercial Software—Government Users Subject to Standard License Terms and Conditions.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

Copyright 2002 Sun Microsystems, Inc., 901 San Antonio Road, Palo Alto, CA 94303-4900 Etats-Unis. Tous droits réservés.

Ce produit ou document est distribué avec des licences qui en restreignent l'utilisation, la copie, la distribution, et la décompilation. Aucune partie de ce produit ou document ne peut être reproduite sous aucune forme, par quelque moyen que ce soit, sans l'autorisation préalable et écrite de Sun et de ses bailleurs de licence, s'il y en a. Le logiciel détenu par des tiers, et qui comprend la technologie relative aux polices de caractères, est protégé par un copyright et licencié par des fournisseurs de Sun.

Des parties de ce produit pourront être dérivées des systèmes Berkeley BSD licenciés par l'Université de Californie. UNIX est une marque déposée aux Etats-Unis et dans d'autres pays et licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, AnswerBook2, docs.sun.com, et Solaris sont des marques de fabrique ou des marques déposées, ou marques de service, de Sun Microsystems, Inc. aux Etats-Unis et dans d'autres pays. Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux Etats-Unis et dans d'autres pays. Les produits portant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc.

L'interface d'utilisation graphique OPEN LOOK et Sun™ a été développée par Sun Microsystems, Inc. pour ses utilisateurs et licenciés. Sun reconnaît les efforts de pionniers de Xerox pour la recherche et le développement du concept des interfaces d'utilisation visuelle ou graphique pour l'industrie de l'informatique. Sun détient une licence non exclusive de Xerox sur l'interface d'utilisation graphique Xerox, cette licence couvrant également les licenciés de Sun qui mettent en place l'interface d'utilisation graphique OPEN LOOK et qui en outre se conforment aux licences écrites de Sun.

LA DOCUMENTATION EST FOURNIE "EN L'ETAT" ET TOUTES AUTRES CONDITIONS, DECLARATIONS ET GARANTIES EXPRESSES OU TACITES SONT FORMELLEMENT EXCLUES, DANS LA MESURE AUTORISEE PAR LA LOI APPLICABLE, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE A LA QUALITE MARCHANDE, A L'APTITUDE A UNE UTILISATION PARTICULIERE OU A L'ABSENCE DE CONTREFAÇON.



Contents

What's In This Guide v

1. About File Reporter 1

- 1.1 File Reporter Components 1
 - 1.1.1 File Reporter Service 2
 - 1.1.2 File Reporter Web 2
- 1.2 Installed Configuration 3
 - 1.2.1 Directory Locations 3
 - 1.2.2 Database Settings 3
- 1.3 How File Reporter Works 4
- 1.4 Security 4
 - 1.4.1 Database Access 4
 - 1.4.2 User Access 5
 - 1.4.3 .csv File Resources 5
- 1.5 Enable .csv File Generation 6

2. Installation Prerequisites 1

- 2.1 Recommended Hardware 1
- 2.2 Required Software 1
- 2.3 Required Installation Privileges 2

2.4	Required Information	2
2.5	Space Requirements	3
3.	Installation Preparation	1
3.1	Verify the Pagefile.sys Size	1
3.2	Verify the Version of Microsoft SQL Server	2
3.3	Verify that Microsoft SQL Server is Running	2
3.4	Verify the Size of the SQL tempdb and Log Files	3
4.	Installing File Reporter	1
4.1	Installing File Reporter	1
5.	Editing the SRMFC Database	1
5.1	Stopping the File Reporter Service	1
5.2	Allow Bulk Data Loads	2
5.3	Add Space to the SRMFC Database	2
5.4	Create a Second SRMFC Database Log File	3
5.5	Recreate the FileSpec Table	3
5.6	Recreate the Create Index Stored Procedure	4
5.7	Restart the File Reporter Service	4
6.	Using File Reporter	1
6.1	Start File Reporter	1
6.2	File Reporter Web	1
6.2.1	Partition Groups Page	1
6.2.2	Service Configuration Page	4
6.2.3	Database Configuration Page	4
6.2.4	Manual Import Configuration Page	5
6.3	File Reporter Reports	5

6.3.1 New Reports and Features in V2.0.2 6

A. Schema Documentation 1

A.1 Overview 1

A.2 File Reporter Tables 3

A.2.1 PartitionGroup Table 3

A.2.2 Partition Table 3

A.2.3 FileSpec Table 4

B. Post-Installation Reference 1

B.1 Uninstall File Reporter 1

B.1.1 Shut down the web and File Reporter services 1

B.1.2 Remove the File Reporter web from your system 2

B.1.3 Delete the File Reporter registry keys 2

B.1.4 Delete the File Reporter Database 3

B.1.5 Remove SRMFC ODBC Data Source 3

What's In This Guide

This guide has been developed as a reference tool for File Reporter software users who will configure the File Reporter environment, install the software, and use the File Reporter software. For information on using the Capacity Reporter software, see the Capacity Reporter Help.

This guide is organized as follows:

- Chapter 1 provides information about the File Reporter product.
- Chapter 2 lists prerequisites needed to install the File Reporter software.
- Chapter 3 describes procedures to verify the prerequisites.
- Chapter 4 contains the File Reporter installation procedure.
- Chapter 5 describes procedures for the post-installation editing of the SRMFC database.
- Chapter 6 describes procedures for using the File Reporter Web and for generating reports.
- Appendix A lists the File Reporter database schema.
- Appendix B provides instructions on uninstalling the File Reporter software.

About File Reporter

This guide contains information intended to help you install and use the File Reporter software. The File Reporter software gathers, stores, and displays information about an enterprise's resources. This information is used to locate files, manage space, and identify space usage problems. File Reporter does this by periodically collecting Capacity Reporter's Comma Separated Value (.csv) files and storing them in the File Reporter SQL Server database. The .csv files are gathered from Capacity Reporter for Windows NT Agents that a Capacity Reporter Server already manages.

After .csv files are stored in the File Reporter database, you can query the information. Some typical queries are:

- How much storage is used by files with a particular file extension, based on partition, computer name, and owner. For example, how much space is used by .doc files on partition group COMMON-DOC.
- Where particular files are located. For example, on which partitions is Microsoft Word installed.

Due to the large processing requirements of the File Reporter software, we recommend scheduling the file collection for off-hours, so that File Reporter data is available during the day.

1.1 File Reporter Components

The File Reporter software consists of one web, one main executable file, a set of common executable files (and their support files), an SQL Server 7.0 or SQL Server 2000 database that contains data and stored procedures, and some registry entries.

The main executable file is:

- FCService.exe – the Windows NT Service that File Reporter runs under.

The following common files are used by either the web, the service, or both:

- FCUtility.dll
- DBFileLoad.dll
- DBHusk.dll
- FCReports.dll
- FCSynchronize.dll
- FCRegistry.dll

1.1.1 File Reporter Service

The File Reporter Service (FCService.exe) must run under the same Service Login account as the Capacity Reporter Server that is managing the Capacity Reporter Agents from which the File Reporter software obtains .csv files. By default, this account is **SRMSvcUser**. The File Reporter software also obtains partition and partition group information from the Capacity Reporter database.

Running the File Reporter software under the same Service Login account as the Capacity Reporter Server ensures adequate access to the Capacity Reporter database. The Capacity Reporter database maintains a listing of the Agents that the Capacity Reporter Server is monitoring and the partition and partition group information for those Agents. This is how the File Reporter software knows the Capacity Reporter Agents from which to collect .csv files.

1.1.2 File Reporter Web

The File Reporter Web is your means of setting up and administering the File Reporter database service. Using the File Reporter Web, you have access to both the Capacity Reporter and File Reporter databases. Using the pages in the console web, you can select and schedule partition groups for .csv file collection, and change your File Reporter configuration.

1.2 Installed Configuration

1.2.1 Directory Locations

By default, the File Reporter directory is installed as <*System Drive*>\Program Files\File Reporter with the following subdirectories:

- \Log for the File Reporter service log
- \StagedFiles for the temporary storage of .csv files copied from the Agent computers

1.2.2 Database Settings

The File Reporter database is created with the following settings:

- Truncate Log on Checkpoint – **on**
- Select Into/Bulk Copy – **on**
- Auto Create Statistics – **on**
- Auto Update Statistics – **on**

Set the **Sort Order** to any case-insensitive order on the SQL Server on which the File Reporter database is installed.

The File Reporter database retains no history, and is created with no maintenance or backup tasks.

When created, the initial File Reporter database is 3 MB, and the database transaction log is 1 MB. After installing the File Reporter software, the sizes of the database and the transaction log must be altered using post-installation scripts. Refer to Chapter 5 for more information.

1.3 How File Reporter Works

Your Capacity Reporter Server maintains information about the Capacity Reporter Agents it monitors and collects data from, including partition and partition group information. Capacity Reporter stores this information in the Capacity Reporter database. The Capacity Reporter database may or may not be on the same computer with the Capacity Reporter Server.

When you click **Synchronize with the Capacity Reporter Database** on the **Partition Groups** page of the File Reporter web, the File Reporter software connects to the Capacity Reporter database. The File Reporter software finds out which Agent computers the Capacity Reporter Server is monitoring, the partitions on those computers, and the user-defined Capacity Reporter File System (the equivalent of Partition) Groups. The File Reporter software copies this information into the Partition Group and Partition tables in the File Reporter database.

When a File Reporter job runs, File Reporter connects to the Agents, copies the SRMFileData.csv file(s) from each, and temporarily stores them in the StagedFiles directory on the File Reporter computer. File Reporter then purges any existing rows and indexes from the database and loads the new .csv file data (removes any existing rows and indexes, loads the new data, and recreates the indexes). The File Reporter database is now ready to query.

1.4 Security

File Reporter installation privileges are listed in Chapter 2.

1.4.1 Database Access

During installation, Setup creates an SQL Server Role and names it SRMSvcGroup, to which it adds the Service Login account of the target Capacity Reporter Server (by default, **SRMSvcUser**). The SRMSvcGroup is given Select, Insert, Update, Delete, and DRI access to all tables and views in the File Reporter database, as well as Execute permission on all stored procedures in the database. The Capacity Reporter Server's Service Login account has full access to the Capacity Reporter database, giving File Reporter access also.

Note – The SRM Service Login account must also have access to the administrative shares on the target Capacity Reporter Agent computers. Without this access, .csv file copying fails.

1.4.2 User Access

File Reporter user access is designed to allow you to grant access as needed. The following permissions are needed to use File Reporter:

- SRMSvcGroup Role access to both the File Reporter and Capacity Reporter databases
- Local Administrator privilege on the File Reporter computer

To ensure adequate access to the File Reporter Console and both databases, log in as the SRM Service Login account when using the File Reporter software.

1.4.3 .csv File Resources

Input to the File Reporter database is from the SRMFileData.csv files on the target Capacity Reporter Agent computers.

Each file in a partition creates a single entry in the SRMFileData.csv file that is placed in the root of the partition. The number of records in this file is equivalent to the number of files in a partition. The size of the file varies depending on the length of the “path description” to each file. The size of each file entry is approximately 140 bytes per file. Therefore, a partition with 1,000,000 files causes the creation of a .csv file of approximately 140 MB.

1.5 Enable .csv File Generation

Before the File Reporter software can copy the SRMFileData.csv files, you must enable the generation of these files on the target Capacity Reporter Agent computers. You must enable generation of .csv files for each partition group from which you want .csv file information. Because the default Capacity Reporter installation has this setting disabled, no .csv files are collected until you enable the option. After the option is enabled, the files are generated at the next partition scan.

Follow the steps described in this section to enable .csv file generation.

Note – You must have Capacity Reporter administrator privileges to enable generation of .csv files.

Enable .csv file generation on Capacity Reporter Agents

1. Open a browser and point it to the Capacity Reporter Server that manages the Agents from which you want .csv file information.
2. Click **Options** in the Capacity Reporter window to display the Options page.
3. Click **Groups** to display the Select Group page.
4. From the Partition Group list box (File System Group list box in SRM 4.0.1), select a partition, or SRM 4.0.1 file system, group name and click **Modify** or **New** to display the Group Properties page for a new or existing group.
5. Select the check box for the Collect file details on these partitions (file systems for SRM 4.0).
6. Click **Submit** to make the changes take effect.

Repeat these steps for every partition group from which you want .csv file data.

Installation Prerequisites

This chapter details the pre-installation requirements and recommendations for the File Reporter software.

2.1 Recommended Hardware

- Intel-compatible Pentium Server
- Dual 500 MHz processors, or better
- 512 MB of memory for each processor
- At least three physical disks

2.2 Required Software

These software components must be installed on the target File Reporter computer prior to File Reporter installation:

- Microsoft Windows NT Server 4.0, with SP4 and option pack 4.0
 - or -
 - Windows NT 4.0 Workstation, with SP4 and option pack 4.0
 - or -
 - Windows 2000 Server, Enterprise Edition
- MDAC 2.1
- Microsoft SQL Server 7.0 SP2, or SQL Server 2000 SP3
- SQL Server ODBC driver 3.70.006.23
- Adequate disk space for staged files storage
- Microsoft Internet Information Server (IIS) 4.0, (IIS 5.0 for Windows 2000)

IIS 4.0 is part of the Windows NT 4.0 Option Pack typical installation, which includes the specific components needed for Capacity Reporter

- One of the following web browsers, with JavaScript enabled:
 - Internet Explorer 5.5, SP2 with the latest patches
 - or –
 - Internet Explorer 6.0 with latest patches
 - or –
 - Netscape 4.7 or greater

Capacity Reporter Server 3.1.5 or later must be installed on another computer in the same domain or in a trusted domain, and accessible to the File Reporter target computer.

Note – Do **not** install the File Reporter software on a machine that is running Capacity Reporter.

2.3 Required Installation Privileges

- Local administrator privileges on the computer.
- The login ID and password for the account to use for database creation or access. This is either the SQL **sa** account or a Windows NT account that has system administrator privileges.

2.4 Required Information

- The Domain, account name, and password for the Capacity Reporter Server's Service Login account.
- The computer name of the SQL Server where the new File Reporter database will be created. By default, the database is named SRMFC.
- The computer name of the SQL Server where the Capacity Reporter database resides and the name of that database. By default, the Capacity Reporter database is named SRMDB_*SRMServercomputername*, where *SRMServercomputername* is the name of the computer on which the Capacity Reporter Server resides.

2.5 Space Requirements

- Physical disk #1 contains:
 - 2 GB for pagefile.sys
 - 2 GB for tempdb
- Physical disk #2 contains:
 - 20 GB for SRMFC database data. The SRMFC database data can be spread across a maximum of 4 physical disks.
- Physical disk #3 contains:
 - 7 GB for SRMFC database log
 - 2 GB for incoming .csv files

Installation Preparation

This chapter includes procedures that will help you to successfully install the File Reporter software. These procedures enable you to check whether system resource requirements have been met, and to ensure that the minimum system requirements are satisfied.

3.1 Verify the Pagefile.sys Size

For Windows NT 4.0 and Windows 2000, Microsoft recommends that the minimum size of the pagefile.sys be the same as the size of the system's installed memory. Sun recommends a minimum size of 2 GB for the pagefile.sys file. Sun's preferred configuration uses primary and secondary files, where the secondary file resides on a non-system disk that is not part of a RAID array.

Verify that the system's pagefile.sys size is 2 GB.

1. Go to **Start → Settings → Control Panel**, and double-click on **System**.
 - a. If you are using Windows NT, select the **Performance** tab and click the **Change** button to display the Virtual Memory dialog box.
 - b. If you are using Windows 2000, select the **Advanced** tab, click on the **Performance Options** button, and then click on the **Change** button to display the Virtual Memory dialog box.
2. In the Virtual Memory dialog box, enter the equivalent of 2 GB (2,048 MB) in the Maximum Size field. If the drive that contains the pagefile.sys file does not have enough free space, select another drive from the Drive [Volume Label] list box and add the remaining space on it.
3. Click **Set** and reboot the system for the changes to take effect.

3.2 Verify the Version of Microsoft SQL Server

Verify that the computer is running Microsoft SQL Server 7.0 SP2 or SQL Server 2000 SP3.

1. Go to **Start → Programs → Microsoft SQL Server → Query Analyzer**.
2. Enter the target SQL Server machine name in the SQL Server field and select the Use SQL Server authentication radio button. Enter sa in the Login Name field and click **OK**.
3. In the SQL Query Analyzer window, type:
`select @@version`
4. Press the **F5** key to see version information.

If you do not have the correct version of SQL server, you must upgrade your SQL server. Service packs are available at the Microsoft web site.

3.3 Verify that Microsoft SQL Server is Running

Verify that Microsoft SQL Server is running.

1. If you are using Windows NT, go to **Start → Settings → Control Panel**, and double-click on **Services**. If you are using Windows 2000, go to **Start → Programs → Administrative Tools → Services**.
2. Scroll down to **MSSQLServer** and verify that it is set to Started and Automatic. If not, select **MSSQLServer** and click **Start**.

3.4 Verify the Size of the SQL tempdb and Log Files

Verify that the SQL tempdb file can extend to 2 GB, and that its log can expand to 50 MB.

If you have 2 GB free on the disk where SQL is installed:

1. Go to **Start → Programs → Microsoft SQL Server → Query Analyzer**.
2. Enter the target SQL Server machine name in the SQL Server field and select the Use SQL Server authentication radio button. Enter sa in the Login Name field and click **OK**.
3. From the SQL Query Analyzer window, run AlterDbTempdb.sql from the Documentation → DB_Best_Practices folder on the File Reporter software CD.
4. If you are running Windows NT, go to **Start → Settings → Control Panel → Services**. If you are using Windows 2000, go to **Start → Programs → Administrative Tools → Services**. Stop and restart MSSQLServer to verify the changes to tempdb.

If you do not have 2 GB free on the disk where SQL is installed:

1. Find a drive that does not contain, and will never contain any SRMFC*.mdf (data file) or SRMFC*.ldf (log file) files.
2. From the SQL Query Analyzer window, run AlterDbTempdb2.sql from the Documentation → DB_Best_Practices folder on the File Reporter software CD.
3. The AlterDbTempdb2.sql script displays in the Query Analyzer window. Within the script, change the drive letter, G:, to a free drive on your machine whose free space meets the following criteria:

free space on drive + size of the existing Tempdev.mdf file = 2 GB

4. Press the **F5** key.
5. If you are using Windows NT, go to **Start → Settings → Control Panel → Services**. If you are using Windows 2000, go to **Start → Programs → Administrative Tools → Services**. Stop and restart MSSQLServer to verify the changes to tempdb.

Installing File Reporter

This procedure assumes that the computer on which you are installing the File Reporter software meets or exceeds all installation requirements listed in Chapter 1, and that SRM 3.1.5 (or later) or Capacity Reporter, and an acceptable version of SQL Server are already installed and accessible on your network.

4.1 Installing File Reporter

Install File Reporter

1. Insert the File Reporter software CD-ROM in the CD-ROM drive. Run setup.exe from the CD-ROM. The Welcome dialog box displays.
2. Click **Next** to display the License Agreement dialog box.
3. Click **Agree** to display the Choose Destination Location dialog box.
4. Review the default installation destination information. If you want to install the File Reporter software to an alternate location, click Browse to select the alternate location. To continue, click **Next** to display the **Capacity Reporter Service Login** dialog box.
5. Provide the following information for the Service Login account. This is the same Service Login account as the Capacity Reporter Server whose database this File Reporter installation will use.
 - Type the Domain (or select one from the pull-down list) for the Capacity Reporter Server's Service Login account.
 - If necessary, change the default service name in the **Login** field. The default Capacity Reporter Server Service Login account is **SRMSvcUser**.
 - Enter the password for the Service Login account in the **Password** field.

- Retype the password in the **Confirm Password** field.
6. Click **Next** to display the File Reporter Database dialog box.
 7. In the SQL Server field, enter the name of the SQL Server on which you want this File Reporter database created. Accept the default database name of SRMFC. Click **Next**.

Note – If you alter the default database name, do not use the following characters: dashes, wild cards, spaces, or periods. These invalid characters can cause database creation errors.

- a. If the account you are logged in to has sufficient privileges to create a database on this SQL Server, the **Capacity Reporter Database** dialog box displays.

If Setup determines that the account you are using has insufficient privileges to create the database on the specified SQL Server, the **Privileged Account Required** dialog box is displayed.
 - b. Specify an account type, and fill in the appropriate information. This account must have permission to create and modify databases on the specified SQL Server. Click **Next** to display the **Capacity Reporter Database** dialog box.
8. In the SQL Server field, enter the name of the SQL Server where the Capacity Reporter Server's database is stored.
 - a. In the **Database** field, enter the name of the Capacity Reporter Server's database. By default, the Capacity Reporter database name is **SRMDB_CapacityReporterServer computername**, where *CapacityReporterServer computername* is the name of the computer on which the Capacity Reporter Server is installed.
 - b. Setup verifies that the service account has appropriate access to the Capacity Reporter database you specify.
 9. Click **Next** to display the **Capacity Reporter Server Registration** dialog box. Enter the name of the Capacity Reporter Server with which you want to register the File Reporter software. The name of the SQL Server from the previous dialog box is the default in the Capacity Reporter Server Name field.
 10. Click **Next** to display the Start Installation dialog box. The Setup software now has all the information needed to install the File Reporter software on this computer.
 11. Click **Next**. The Installing dialog box displays, while the Setup program copies files onto the computer. After all files have been installed and all directories created, the Installation Complete dialog box displays.

12. Click **Finish** to allow the Setup program to perform any final actions and close. You are now ready to use the File Reporter software.
13. Go to **Start → Programs → Internet Explorer**. Enter the URL `http://<servername>/FileReporter`, where *servername* is the name of the server on which you installed the File Reporter software. The File Reporter web displays the Query Builder page.

Editing the SRMFC Database

This chapter contains detailed instructions on how to tune your environment to maximize File Reporter software performance.

Note – After you complete the following procedures, you must restart the File Reporter service, as described in Section 5.7, “Restart the File Reporter Service” on page 5-4.

5.1 Stopping the File Reporter Service

Before performing any of the following procedures, you must stop the File Reporter service (FCService).

Set the FCService startup to manual and stop the service.

1. If you are using Windows NT, go to **Start → Settings → Control Panel → Services**. If you are using Windows 2000, go to **Start → Programs → Administrative Tools → Services**.
2. Scroll down and click on the **FCService** service.
3. Click **Startup** to display the **Service** dialog box.
4. Select **Manual** and click **OK**.
5. Click **Stop**, and then click **Close**.

5.2 Allow Bulk Data Loads

Allow bulk data loads.

1. Go to **Start → Programs → Microsoft SQL Server → Query Analyzer**.
2. In the SQL Server field, enter the target SQL Server machine name and select the **Use SQL Server authentication** radio button. Enter **sa** in the Login Name field and click **OK**.
3. From the SQL Query Analyzer window, run **AlterDbSRMFC.sql** from the **Documentation → DB_Best_Practices** folder on the File Reporter software CD.
4. Press **F5** to run the script.

5.3 Add Space to the SRMFC Database

The File Reporter software uses four SRMFC data files to store SRMFC data. Each SRMFC data file requires 5 GB of free drive space. Consider the number of available drives and the free space per drive when deciding where to install the SRMFC data files on your system.

Add 20 GB of space to the SRMFC database using four separate 5 GB files.

1. From the Query Analyzer window, run **AddFilegroup.sql** from the **Documentation → DB_Best_Practices** folder on the File Reporter software CD.
2. From the Query Analyzer window, run **AddFilesToFilegroup.sql** from the same location on the CD, and edit it to refer to the directory or directories on which SRMFC data will be located. To do this, change the drive letter to your system's drive letter(s). For example, change:

```
filename = 'G:\SRMFC_tables3.ndf'  
to:  
filename = '<System Drive>\SRMFC_tables3.ndf'
```

3. Press **F5** to run the script.

Note – This process may take some time, because SQL Server formats each drive when allocating the 20 GB of space.

5.4 Create a Second SRMFC Database Log File

Create a second SRMFC database log file.

Note – Do not create this log file on a drive containing an SRMFC data file.

1. Go to **Start → Programs → Microsoft SQL Server → Enterprise Manager**.
2. Expand SQL Server Group → *<Targeted Server Name>* → Databases, and right-click on **SRMFC**.
3. Select **Properties** from the menu to display the **Database Properties** dialog box. Select the **Transaction Log** tab.
4. Create a second log file for the database on a device with more than 7 GB of free space.
5. Click on the line below the SRMFC line and press the **TAB** key.
6. Enter **SRMFC_log2** as the File Name on the new line.
7. Enter the location for which you want the log file to be created.
8. Enter **4000** as the Space Allocated.
9. Select the **Automatically Grow File** check box and select the **In Megabytes** radio button. Enter **100** in its corresponding field.
10. In the Maximum file size section, select the **Restrict filegrowth(MB)** radio button and enter **7000** in its corresponding field.
11. Click **OK**.

5.5 Recreate the FileSpec Table

Recreate the FileSpec table.

1. Go to **Start → Programs → Microsoft SQL Server → Query Analyzer**.

2. In the SQL Server field, enter the target SQL Server machine name and select the **Use SQL Server authentication** radio button. Enter **sa** in the Login Name field and click **OK**.
3. From the SQL Query Analyzer window, run **CreateTable_FileSpec.sql** from the Documentation → DB_Best_Practices folder on the File Reporter software CD.

5.6 Recreate the Create Index Stored Procedure

Recreate the Create Index stored procedure.

1. Go to **Start → Programs → Microsoft SQL Server → Query Analyzer**.
2. In the SQL Server field, enter the target SQL Server machine name and select the **Use SQL Server authentication** radio button. Enter **sa** in the Login Name field and click **OK**.
3. From the SQL Query Analyzer window, run **CreateStoredProcedure.sql** from the Documentation → DB_Best_Practices folder on the File Reporter software CD.

5.7 Restart the File Reporter Service

Restart the File Reporter service.

1. Go to **Start → Settings → Control Panel → Services**.
2. Scroll down and click on the **FCService** service.
3. Click **Startup** to display the Service dialog box.
4. Select **Automatic** and click **OK**.
5. Click **Start**, and then click **Close**.

Using File Reporter

After the File Reporter software is installed, you are ready to use the File Reporter Console to import Capacity Reporter partition and partition group information, and to schedule .csv file collections.

6.1 Start File Reporter

Launch Internet Explorer and point to `http://<servername>/FileReporter`, where *servername* is the name of the server on which the File Reporter software is installed. The **Navigation Bar** and Query Builder window are displayed.

6.2 File Reporter Web

The Configuration portion of the File Reporter Console is arranged in four core pages: **Partition Groups**, **Daily Schedule**, **Service Configuration**, and **Database Configuration**.

6.2.1 Partition Groups Page

The **Partition Groups** page displays all partition groups defined in your Capacity Reporter installation.

Note – When you first open the File Reporter application, this list is empty. You must click **Synchronize with the Capacity Reporter Database** to populate the list.

Partition Group Information

The statistics listed provide information about each Partition Group listed in the Capacity Reporter database. These statistics combine Capacity Reporter information and File Reporter information.

TABLE 6-1 Partition Group Statistics

Group Name	Capacity Reporter-defined Partition Group name. For example, Default Partition Group, or for SRM 4.0, Default File System Group. Click on a group name to see a list of its members.
Description	Capacity Reporter-defined Partition, or File System Group description.
Scheduled Days	File Reporter-defined .csv file collection daily schedule assigned to this Partition Group. A zero (0) indicates no collection that day, an X indicates a collection runs that day. The days are listed from Sunday to Saturday, corresponding to the Daily Schedule dialog.
Last Start	The day, date, and time that the most recent daily schedule began.
Last Stop	The day, date, and time that the most recent daily schedule ended.

Partition Groups Functions

Use the buttons and hyperlinks on this page to perform Partition Group configuration actions:

TABLE 6-2 Partition Group Buttons

Synchronize with the Capacity Reporter Database	Updates the Partition Group list with what is current in the associated Capacity Reporter database. Clicking this link enables the File Reporter software to connect to the Capacity Reporter database, read the File System Group information, update the File Reporter database, and display the updated information in the File Reporter Console. Click Synchronize with the Capacity Reporter Database when: This is the first time the File Reporter application is opened. File System Groups are modified in Capacity Reporter.
Collect Files	Enables you to kick off an on-demand collection. This provides an off-schedule collection function.

Partition Group .csv File Collection Schedules

The File Reporter software enables you to schedule .csv file collections on a daily basis, assign Partition Groups to each collection schedule, and perform an on-demand file collection.

Create daily collection schedules

1. Open the File Reporter application and select the **Daily Schedule** menu item on the Navigation Bar to display the **Daily Schedule** page.
2. Enter the following information for each day you want .csv files collected. This enables you to run file collections at different times on each day:
 - The time you want the file collection to begin in *hour:minute* format in the **Start Time** fields.
 - The maximum amount of time you want the file collection to run in *hour:minute* format in the **Duration** fields.
3. Click **Apply Changes**.

Assign Partition Groups to schedules

1. Click the **Partition Groups** navigation button to access the **Partition Groups** page.
2. Click the desired partition group's hyperlink in its corresponding Scheduled Days column to display the **Schedule Partition Group** page and the last daily schedule defined.
3. Referring to the displayed schedule, select the check boxes for the days you want this Partition Group's .csv file collected.
4. Click **OK**.

Repeat these steps as needed, until all Partition Groups are scheduled.

Perform an on-demand collection

1. Click the **Partition Groups** navigation button to access the **Partition Groups** page.
2. Click a partition group's **Collect Files** button. After you click **Collect Files**, the File Reporter software places the partition group in the queue. If no jobs are running, this job runs immediately. If other jobs are running, this job is placed next in the queue, and it runs as soon as the other jobs have finished.

6.2.2 Service Configuration Page

The **Service Configuration** page displays information and status about the current configuration.

TABLE 6-3 Service Configuration Information

Trace Log	<p>This section displays the location of the File Reporter trace log. This log maintains a record of the actions the File Reporter software has performed and status information about those actions. The current location of this log is displayed in the Trace Log Path field. The default trace log location is:</p> <p><System Drive>:\Program Files\File Reporter\Log\FileReporter.log</p> <p>Note: If you change the default location of the Trace Log path, you must stop and then restart the FCService for the change to take effect. See Chapter 5 for more information on starting and stopping the FCService.</p>
Staged Files Directory	<p>This section displays the current location of the staged files directory. Staged files have been copied from the Capacity Reporter Agent computers to the File Reporter computer, but have not yet been loaded into the File Reporter database. The default location is:</p> <p><System Drive>:\Program Files\File Reporter\StagedFiles</p> <p>These files are deleted after they are loaded into the File Reporter database.</p>
Thread Pools	<p>This section displays the number of Partition Purge, File Copy, and File Load threads that can run concurrently in the service. You can modify the default for each thread type as needed.</p>
Job Queue Aging (in Days)	<p>Runs off the Job Queue Maintenance setting. At the specified interval, all entries in the Job Queue older than the specified time are deleted.</p>

6.2.3 Database Configuration Page

The **Database Configuration** page displays information and statistics about your Capacity Reporter and File Reporter databases.

Database Configuration Information

TABLE 6-4 Database Configuration Information

Capacity Reporter Server/Database	This section displays the computer and database names of the Capacity Reporter database associated with this File Reporter database.
File Reporter Server/Database	This section displays the computer and database names of the current File Reporter service.
Database Statistics	Number of Partition Groups, Partitions, and Files in the File Reporter database.

6.2.4 Manual Import Configuration Page

The Manual Import utility allows you to import NetWare and UNIX .csv files from the Capacity Reporter database into the File Reporter database. The File Reporter software cannot automatically import these files. You must copy and rename files; directions are included in the user interface.

6.3 File Reporter Reports

Choose the **Reports** link on the Main Navigation Bar to access the reports that ship with the File Reporter software. To run these reports, click **Display Report** at any time after a .csv file collection.

Note – These reports are templates only. You can run them as often as you like to review new information, but you cannot modify their design. To run custom-designed reports, use the report tool of your choice and design the reports to best meet your specifications.

6.3.1 New Reports and Features in V2.0.2

The following new reports and report features are included in V2.0.2:

- **File Type Summary Report:** New report that displays summary of file extensions.
- **Printer-friendly reports:** You can display reports in a new window that does not contain page breaks or table borders, for ease of printing. Click on the **Show Report for Printing** link to display a report for printing.
- **Links to directories:** Reports now contain links to the directories in which files are located (for Windows NT and Network Appliance CIFS format only).
- **Duplicate Files Report:** You can click on a file name to see a list of all files that have a particular name.
- **Query Builder:** You can set the maximum number of files to display in the report.

Schema Documentation

A.1 Overview

This appendix documents the tables in the File Reporter schema that contain information about Capacity Reporter Managed Partitions and the files on those partitions. The File Reporter database contains other tables, which are not documented here.

TABLE A-1 Capacity Reporter Tables and Purpose

SQL Table Name	Purpose
Partition	Contains information about a Capacity Reporter Managed Partition.
PartitionGroup	Contains information about a Capacity Reporter Partition Group. Partition Groups are imported from the Capacity Reporter database that your File Reporter installation is configured to use.
FileSpec	Contains information about all files that exist on Capacity Reporter Managed Partitions. This information is extracted from the SRMFileData.csv files that the Capacity Reporter Agent can create for each Capacity Reporter Managed Partition.

These tables are related in the following way:

- The **PartitionGroupId** column in the Partition table identifies the Partition Group to which that Partition belongs.
- The **PartitionId** column in the FileSpec table identifies the Partition on which the file is found.

The following sections of this appendix detail the columns of the Partition, PartitionGroup, and FileSpec tables.

A.2 File Reporter Tables

A.2.1 PartitionGroup Table

Column Name	SQL Data Type	Description
PartitionGroupId	binary(16)	Globally Unique Identifier (GUID) that is the primary key for this Partition Group. This GUID is the same GUID that is used in the Capacity Reporter database to identify the Partition Group.
PartitionGroupName	varchar(64)	Capacity Reporter-given name of the Partition Group.
PartitionGroupDescription	varchar(128)	Capacity Reporter-given description of the Partition Group.
DayOfWeekMap	char(7)	Field containing seven characters. Each character corresponds to a day of the week, with the first character corresponding to Sunday: "O" indicates that the partition group IS NOT scheduled to run on that day. "X" indicates that the partition group IS scheduled to run on that day.
LastJobStartTime	datetime	Starting date/time for the last daily batch that scanned this partition group.
LastJobStopTime	datetime	Ending date/time for the last daily batch that scanned this partition group.
Deleted	bit	Used to track whether this partition group has been removed from Capacity Reporter.

A.2.2 Partition Table

Column Name	SQL Data Type	Description
PartitionId	binary(16)	Globally Unique Identifier (GUID) that is the primary key for this partition. This GUID is the same GUID that is used in the Capacity Reporter database to identify the Managed Partition.
PartitionGroupId	binary(16)	Globally Unique Identifier (GUID) that is a Foreign Key for the PartitionGroup table. This column identifies the PartitionGroup of which this Partition is a member.
ComputerName	char(16)	Name of the computer on which this partition is defined.
PartitionName	varchar(64)	Name of this Managed Partition.
DomainName	varchar(64)	Name of the domain of which ComputerName is a member.
CSVFileLocation	varchar(260)	Full file specification for the Capacity Reporter file data .csv file for this partition. For example, <u>\\Ursula\C\$\SRMFileData.csv</u> . This is the file that the File Reporter software copies and imports into the File Reporter database.
CSVFileName	varchar(260)	File name (such as SRMFileData.csv) that has been assigned to this partition in Capacity Reporter. The File Reporter software uses this name to construct CSVFileLocation.
Deleted	bit	Used to track whether this partition has been removed from Capacity Reporter or from a group (moved between groups) in Capacity Reporter.
ShareName	varchar(127)	Share name of the partition.
LastJobStartTime	datetime	File Reporter software Internal use only.
LastJobStopTime	datetime	File Reporter software Internal use only.
ScanDate	datetime	File Reporter software Internal use only.

A.2.3 FileSpec Table

Column Name	SQL Data Type	Description
PartitionId	binary(16)	A Globally Unique Identifier (GUID) that is a Foreign Key for the Partition table. Identifies the Partition on which this file is located.
Owner	varchar(64)	Name of the Windows NT account that owns this file.
OwnerDomain	varchar(64)	Name of the Windows NT Domain in which Owner is defined.
Size	float	Size of this file in bytes.
Attributes	int	<p>Windows NT File system attributes of this file, defined by the following bits:</p> <p>FILE_ATTRIBUTE_READONLY 0x00000001 FILE_ATTRIBUTE_HIDDEN 0x00000002 FILE_ATTRIBUTE_SYSTEM 0x00000004 FILE_ATTRIBUTE_DIRECTORY 0x00000010 FILE_ATTRIBUTE_ARCHIVE 0x00000020 FILE_ATTRIBUTE_NORMAL 0x00000080 FILE_ATTRIBUTE_TEMPORARY 0x00000100 FILE_ATTRIBUTE_COMPRESSED 0x00000800 FILE_ATTRIBUTE_OFFLINE 0x00001000</p> <p>To select all read-only files, use the bitwise and operator in SQL, for example: select * from filespec where Attributes & 0x00000001 = 0x00000001.</p>
CreationTime	datetime	Windows NT file system 'Created' datetime for this file.
AccessTime	datetime	Windows NT file system 'Accessed' datetime for this file.
WriteTime	datetime	Windows NT file system 'Modified' datetime for this file.
DirName	varchar(255)	Name of the directory where this file is located. Does not include the partition name. Example: \winnt\system32.
FileName	varchar(255)	Base filename of the file, without extension.
Extension	varchar(255)	The filename extension, including the leading period (.).

Post-Installation Reference

B.1 Uninstall File Reporter

To uninstall the File Reporter software, perform the following tasks, described in this chapter:

- Shut down the web and File Reporter services
- Remove the File Reporter web from your system
- Delete the File Reporter registry keys
- Delete the File Reporter database

B.1.1 Shut down the web and File Reporter services

1. If you are running Windows NT, go to **Start → Programs → Command Prompt**.
2. Stop the World Wide Web Publishing Service. At the command prompt line, type:
`net stop w3svc.`
3. You should see a message confirming that the World Wide Web Publishing Service has stopped successfully.
4. Stop the FCService. At the command prompt, type:
`net stop fcservice.`
 - a. You should see a message confirming that the FCService has stopped successfully.
 - b. If you receive an error instead of a confirmation message, perform the following steps:

- i. If you are running Windows NT, go to **Start → Settings → Control Panel → Services**. If you are using Windows 2000, go to **Start → Programs → Administrative Tools → Services**.
 - ii. Click on **FCService service**.
 - iii. Click **Startup** and select the **Manual** radio button on the **Service** dialog box.
 - iv. Click **OK** and then click **Close**.
5. Shut down and restart the system.

After this procedure, you can remove the File Reporter software from your system.
Delete <drive>:\Program Files\File Reporter

B.1.2 Remove the File Reporter web from your system

1. If you are running Windows NT 4.0, go to **Start → Programs → Windows NT 4.0 Option Pack → Microsoft Internet Information Server → Internet Service Manager**. If you are running Windows 2000, go to **Start → Programs → Administrative Tools → Internet Services Manager**.
2. Expand <Target Computer Name> → Default Web Site → Prospector and right-click on FileReporter.
3. Select **Properties** from the menu.
4. In the **Application Settings** section, click **Remove**, and then click **OK**.
5. Right-click on the **FileReporter** site entry and select **Properties** from the menu.
6. Click **Delete**, and then click **OK**.
7. From Windows Explorer, go to:
<System Drive>:\inetpub\wwwroot\FileReporter
and delete the FileReporter folder.

B.1.3 Delete the File Reporter registry keys

Sun recommends that you back up your registry before you make any changes.

1. Go to **Start → Run** and type **regedit** in the Open field.
2. Click **OK** to display the **Registry Editor** window.
3. Go to **HKEY_LOCAL_MACHINE\SOFTWARE\HighGround\FileCentral**, and delete the **FileCentral** key.

4. Go to **HKEY_LOCAL_MACHINE\SYSTEM**.
5. Expand each **ControlSet###** key, and then expand the **Services** key. Delete the **FCService** key, if it exists.

B.1.4 Delete the File Reporter Database

1. Go to **Start → Programs → Microsoft SQL Server → Enterprise Manager**.
 - a. Expand SQL Server Group\<Target Server Name>\Databases. Right-click on **SRMFC** and select **Delete**.
2. Expand SQL Server Group\<Target Server Name>\Security and select **Logins**.

Note – Perform steps 3 and 4 only if there are no other Capacity Reporter databases on this SQL server.

3. In the right pane, right-click on <domain>\SRMSvcUser and select **Delete**.
4. Restart your system.

B.1.5 Remove SRMFC ODBC Data Source

1. If you are running Windows NT 4.0, go to **Settings → Control Panel → Data Sources (ODBC) → System DSN**. If you are running Windows 2000, go to **Programs → Administrative Tools → Data Sources (ODBC) → System DSN**.
2. Select **SRMFC**.
3. Click **Remove**.

