G10L-9821-0

SMART Reaction

User's Guide

IBM

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Note

Before using this information and the product it supports, be sure to read the information in Chapter 7, “Notices and Trademarks” on page 85.

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Contents

About this Guide

This guide is intended for network administrators who will be setting up and maintaining SMART Reaction Manager and end users of client workstations who will be installing SMART Reaction Client or have a need to modify the settings in SMART Reaction Client.

The information in this guide is divided into the following chapters:

- Chapter 1, "SMART Reaction Overview" provides a high-level description of the product, its uses, prerequisites, and methods of obtaining the product.
- Chapter 2, "Installing and Starting SMART Reaction" provides step-by-step instructions for preparing Windows NT and Windows 95, installing SMART Reaction Manager and SMART Reaction Client, and starting the program.
- Chapter 3, "The SMART Reaction Interface" describes the various windows, notebooks, and fields used in the interface.
- Chapter 4, "Understanding SMART Reaction Manager Configuration" provides an overview of the SMART Reaction configuration and the interdependencies of SMART Reaction Manager, SMART Reaction Client, and the operating system's network functions.
- Chapter 5, "Procedures" provides step-by-step instructions for performing the most common SMART Reaction procedures.
- Chapter 6, "Troubleshooting Tips" provides information to help resolve problems you might encounter.

A Notices and Trademarks section and an index is also provided.

Change History

This guide is subject to change as new information becomes available. The following will help you identify new content or changes that might affect you.

May 12, 1998: Corrected paths in "Removing SMART Reaction from the Startup Folder" on page 17

Chapter 1. SMART Reaction Overview

A great deal of time, effort, and planning is put into implementing safeguards to protect data residing on servers. But statistically, as much as two thirds of mission critical data, such as spread sheets, E-mail, presentations, and other key documents is not stored on servers, but on workstations scattered around the enterprise. If there is no centralized, automated method to protect these files, the end user usually becomes responsible for backing up the data. And frankly, not every end user is conscientious enough about this responsibility. Even if the data is backed up daily, the best you can hope for is a snapshot of the data as it existed at the time of the backup. Any changes to the data between backup operations could be lost in the event of a hard disk failure.

Predictive Failure Analysis

The IBM IntelliStation and PC 300 series computers use hard disk drives with integrated Self-Monitoring, Analysis, and Reporting Technology (S.M.A.R.T.) to monitor the status of the drive and generate predictive failure analysis (PFA) alerts if a potential failure exists within the drive. SMART Reaction intercepts these alerts and converts them into useful responses. SMART Reaction can respond to a PFA alert by doing any combination of the following:

- Display screen messages at the workstation.
- Alert additional parties, such as a network administrator or department head, that a specific workstation has a potential hard disk failure. These alerts can be sent in the form of an E-mail message or through a telephone paging system as either an alphanumeric page or a numeric page.
- Perform an automatic backup or mirror operation.
- Give the end user a choice of backing up the data immediately or deferring the backup to a later time, and then alert the network administrator of the end user's choice.
- Launch any program installed on the computer.

Backup and Mirroring

In addition to responding to PFA alerts, SMART Reaction has the following important features:

- An integrated hard disk mirroring program that dynamically mirrors the contents of up to 64 designated folders. As source files are saved, the mirrored files are automatically updated to contain the same data.
- A full-function, integrated backup program.
- A general purpose scheduler for hard disk backup or mirroring operations.

The SMART Reaction interface also allows you to interact with external backup and mirroring programs, such as IBM ADSTAR Distributed Storage Manager (ADSM), and any other program that can be invoked by a command-line argument.

You can store backup and mirrored files on a server, a peer workstation, or a separate, local hard disk.

Backup Features

The SMART Reaction Backup program is a full-function backup and restoration program for Windows NT Server, Windows NT Workstation, and Windows 95 environments. You can use the program to perform a complete backup operation excluding locked files (files that are open during during the backup process) or a partial backup operation.

Note: Partial backup operations can cause the registry to get out of synchronization with files in a folder or with path names defined in an application program .INI file. Therefore, performing partial backup operations might not be in your best interest.

The SMART Reaction Backup program also provides two methods of ensuring file integrity:

- Enabling the operating system write-verify feature
- Enabling a verification process during backup operations: This feature compares the file written to the backup disk with the original source file on the computer being backed up. This verification process adds an extra read/write cycle, which could slow down the backup operation.

Mirroring Features

With the SMART Reaction Mirroring program, you can mirror the contents of up to 64 selected folders to another hard disk. However, you must define each folder and subfolder independently. Subfolders are not automatically included when a higher-level folder is defined. You can mirror files two ways:

- In continuous mode, any change made to a file in a selected folder on the source drive that causes a change to the file attribute causes the same change to occur instantaneously on the mirror drive. This includes changes such as saving a file, moving a file into or out of a folder, or deleting a file. This mode is designed to capture changes in dynamically changing, mission-critical data. In the event of a hard disk failure, you can quickly recover the data on the mirror drive by accessing it from another workstation.
- In non-continuous mode, the end user determines when to create the mirror files and initiates the mirroring process, or the mirroring process is initiated by the SMART Reaction scheduler. The mirror files are a "snapshot" of the source files and are not updated again until the next mirroring process is initiated.

The SMART Reaction Mirroring program also provides two methods of ensuring file integrity:

- Enabling the operating system write-verify feature
- Enabling a verification process during the mirroring operation: This feature compares the file written to the mirror disk with the original source file on the computer being mirrored. This verification process adds an extra read/write cycle, which could slow down the mirroring operation.

It is also important to note that mirroring cannot protect open or locked files. For example, if you are using a database application that does not have a Save command, you must close the application before the database file will be copied to the mirror drive. Files used by applications, such as .INI files, are locked as long as the application is running, and cannot be mirrored until you close the application.

Combining Mirroring and Backup Features

By combining routine, periodic backup operations with the SMART Reaction continuous-mode mirroring capabilities, you can recover from a hard disk failure with virtually no loss of data. In the event of a hard disk failure, a properly-configured peer workstation can access mission-critical files from the mirror drive until the failing hard disk is replaced. When the failing hard disk is replaced, the affected workstation can be restored by:

1. Reinstalling the base operating system
2. Reinstalling SMART Reaction Client
3. Invoking the SMART Reaction Backup/Restore program to restore the data captured during the latest backup operation
4. Invoking the SMART Reaction Mirror/Restore program to bring the computer up to date by restoring the latest mission-critical files from the mirror drive

The SMART Reaction program can also store both the mirror files and backup files in a compressed format, thereby reducing the amount of required storage space by approximately 50%. However, data stored in a compressed format cannot be used by any computer on the network without first using the SMART Reaction Restore program to restore the data to a decompressed state.

Folder Structures

When SMART Reaction performs a backup or mirror operation, it automatically creates a folder for the client workstation under a shared folder on the server or peer workstation. SMART Reaction uses the client workstation computer name to identify the folder. Depending on the type of backup or mirror operation performed, SMART reaction creates a set of subfolders with the following names:

- cm: Mirror folder for logical drive C
- dm: Mirror folder for logical drive D
- cb: Path backup folder for logical drive C
- db: Path backup folder for logical drive D
- Cd: PFA backup folder for logical drive C
- Dd: PFA backup folder for logical drive D

Note: The first character of the folder name indicates the drive letter of the logical drive that was backed up or mirrored. Drive letters can be other than C and D as shown here. The second character of the folder name reflects the process used to place the data in the folder (m=mirror, b=path backup, d=PFA backup).

Path backup operations are routine backups that are initiated by either the end user or a scheduler. The information in the Backup page of the Control and Status notebook determines which folders get backed up. See “Backup Page - Control and Status Notebook” on page 37 for details. A path backup can contain the contents of a set of defined folders or an entire logical drive. It can also span multiple logical drives (partitions) and physical drives. Each time a path backup is initiated, all data in the subfolders (cb, db, and so on) is deleted and replaced with the new backup data.

PFA backup operations are triggered by PFA alerts. All data on the affected physical drive is backed up, regardless of the number logical drives it contains. Each time a PFA backup is initiated, all data in the subfolders (Cd, Dd, and so on) is deleted and replaced with the new backup data.

The following is an example of the folder structure for two client workstations. The folder for the first workstation, computer_name_1, contains subfolders for mirroring, path backup, and PFA backup operations. The folder for computer_name_2 contains only a folder for path backup operations.

```
shared_folder-|
              |-computer_name_1-|
              |                 |-cm-|
              |                 |    |-mirrored_folder_1
              |                 |    |-mirrored_folder_2
              |                 |    |-mirrored_folder-3
              |                 |
              |                 |-dm-|
              |                 |    |-mirrored_folder_4
              |                 |    |-mirrored_folder_5
              |                 |
              |                 |-cb-|
              |                 |    |-path_backup_folder_1
              |                 |    |-path_backup_folder_2
              |                 |
              |                 |-db |-path_backup_folder_3
              |                 |    |-path_backup_folder_4
              |                 |
              |                 |-Cd-|
              |                 |    |-PFA_backup_all_folders
              |                 |
              |                 |-Dd-|
              |                      |-PFA_backup_all_folders
              |
              |-computer_name_2-|
                                |-cb-|
                                     |-path_backup_folder_1
                                     |-path_backup_folder_2
```

Client-Server Relationship

The SMART Reaction program is composed of two parts:

- SMART Reaction Manager, which resides on a server or peer workstation
- SMART Reaction Client, which resides on each client workstation that uses the backup, mirroring, or messaging functions.

SMART Reaction Manager has all of the same features as SMART Reaction Client, but also has management features that allow a network administrator to:

- Restrict end-user access to selected SMART Reaction features
- Set up backup, restore, and mirror configurations remotely

Setting up backup, restore, and mirror configurations remotely through SMART Reaction Manager is limited to the SMART Reaction Backup, Restore, and Mirroring programs that ship as part of SMART Reaction. If you use IBM ADSM or any other backup program, you cannot set up configurations remotely through the SMART Reaction Manager interface.

Essentially, all operations associated with integrated Backup, Restore, and Mirroring programs are done by SMART Reaction Client. When the network administrator uses SMART Reaction Manager to initiate a backup, restore, or mirror operation, it is really instructing SMART Reaction Client to perform the operation. Files do not pass through the computer running SMART Reaction Manager; they go directly to the computer used to store the backup or mirror data.

Controlled User Access to SMART Reaction Functions

Multiple copies of SMART Reaction Manager can reside within the same network. Each copy of SMART Reaction Manager is given a unique name when it is installed. As SMART Reaction Client is installed, it too is given a unique name and is then assigned to a specific SMART Reaction Manager.

You can use SMART Reaction Manager to:

- Build backup, mirror, and restore configurations on an individual, group, or global basis. Once a configuration is built, the SMART Reaction Manager program passes the configuration to the affected client workstations. This allows the support staff to control backup, mirroring, and restoration processes without any end-user intervention.
- Restrict end-user access to selected SMART Reaction Client features. The administrator can select which features of the SMART Reaction Backup, Restore, and Mirror programs the end user can access. For example, the administrator might want to give the end user the ability to add folder names to the list of folders to be mirrored, but maintain control over the maximum amount of server disk space that the end user can use. In other cases, the administrator might decide to lock out all of the SMART Reaction Client features from the end user and control all aspects of the SMART Reaction Backup, Restore, and Mirror programs remotely.

Distribution Methods

SMART Reaction Manager is available from the World Wide Web as a self-extracting executable file.

SMART Reaction Client is available in two ways:

- For all supported models except IBM PC 300 GL models 6561 and 6591, SMART Reaction Client is available on the *Ready-to-Configure Utility Program CD* as part of the ClientCare program. ClientCare is also part of the preinstalled software package on these models. You cannot install SMART Reaction Client separately from ClientCare.
- For IBM PC 300 GL models 6561 and 6591 only, SMART Reaction Client is available on the World Wide Web as a downloadable, self-extracting executable file.

The World Wide Web address for both SMART Reaction Client and Manager is:

`http://www.ibm.com/pc/us/desktop/sr`

Operating Environment

The SMART Reaction program (Client and Manager) is designed for use in a network environment.

Prerequisites - SMART Reaction Manager

- You can install the SMART Reaction Manager Program on either of of the following:
  - A server running Windows NT Server 4.0 with Service Pack 3

    -OR-
  - A peer workstation running Windows NT Workstation 4.0 with Service Pack 3 or Windows 95 (OSR 2).
- The computer on which SMART Reaction Manager will be installed must have TCP/IP networking enabled. SMART Reaction uses TCP/IP to communicate with client workstations.

- The servers or peer workstations that will be used to store backup and mirror data must be configured for file sharing of the drives or folders that will be used for the backup or mirror data. They must also have TCP/IP networking enabled.
- When running SMART Reaction Manager, you need at least 32 MB of memory and 20 MB of free disk space.
- You also need to reserve enough disk space on the network to hold the files that will be backed up and mirrored.

Prerequisites - SMART Reaction Client

You can install the SMART Reaction Client program on a client workstation running either of the following:

- Windows NT Workstation 4.0 with Service Pack 3

  -OR-
- Windows 95 (OSR 2)

Prior to installation:

- You must install SMART Reaction Manager and have it running on at least one computer on the network (server or peer workstation) before installing SMART Reaction Client any client workstation.
- You must connect each client workstation to an active network and configure it to recognize the server or peer workstation running SMART Reaction Manager. You must enable networking and have TCP/IP support installed.
- You must know the name assigned to the SMART Reaction Manager program that will be servicing the workstation. More than one copy of SMART Reaction Manager might be installed on the network, but each copy has a unique name. Contact the network administrator for the correct name.
- You must install Windows Messaging on each client workstation that will be using the E-mail feature of SMART Reaction Client.
- If you plan to use the paging function of SMART Reaction, at least one computer on the local area network (LAN) must have a modem.

Chapter 2. Installing and Starting SMART Reaction

Before installing either SMART Reaction Client or SMART Reaction Manager, take note of the following:

- SMART Reaction Manager must be installed, configured, and running before you can install SMART Reaction Client.
- SMART Reaction Manager is distributed through the World Wide Web only. Depending on your model, SMART Reaction Client is distributed through the World Wide Web or as part of the ClientCare package on the *Ready-to-Configure Utility Program CD* provided with your computer. See “Distribution Methods” on page 5 for details.
- SMART Reaction Client performs a model check during its installation routine. An older version of SMART Reaction Client might not work with a model announced after that version of SMART Reaction Client (or ClientCare) was made available.
- As part of the installation procedure, SMART Reaction Client and SMART Reaction Manager checks for the presence of Desktop Management Interface (DMI) version 2.0 or later. If DMI is not present, the installation program will install it. If an earlier version is present, the installation program will update it to version 2.0 and keep any existing DMI databases in tact.

This chapter describes how to install and start SMART Reaction Manager and SMART Reaction Client. Use the following to locate the procedures that pertain to you.

Installing SMART Reaction Manager

To install SMART Reaction Manager:

1. Download the SMART Reaction Manager installation file from World Wide Web and place it in its own folder.
2. Run the self-extracting executable file SMARTM.EXE to unpack the files. These are the installation files, including the setup file SETUPSMI.EXE, which you will use in a later step.
3. If you have a domain controller on your network, create a shared folder on the domain controller and name it SRMGR. If you have a backup domain controller, create the shared SRMGR folder there also. SMART Reaction will install some files in the SRMGR folder during the installation process.
4. Close all open windows and programs.
5. From the desktop, click on **Start**.
6. Click on **Run**.
7. Type the path to the SETUPSMI.EXE file, then click on **OK**.
8. The Installation Wizard is displayed.

   Note: If you do not have a domain controller on your network, you might get a message stating `"Adding the computer name to the manager file list on the primary domain controller was not successful."` Ignore the message and click on **Next** to continue.

   Follow the instructions on the screen to install SMART Reaction Manager to your preferred location. The default location is C:\SRMGR. During the installation procedure, you will be asked to create a password for SMART Reaction Manager. The maximum length for this password is 32 characters. Make a note of the password and keep it in a secure place for future reference. You cannot start SMART Reaction Manager without the password.

   When the installation is complete, you will be prompted to restart Windows.

The installation Wizard names SMART Reaction Manager with the *computer name* defined in the Identification tab of the Network notebook (accessible through the Control Panel) and adds SMART Reaction Manager to the Startup folder. Each time the operating system is restarted, SMART Reaction will ask you for your password. Click on the password field, type the SMART Reaction Manager password, then click on **OK**. SMART Reaction Manager must be running when you install and start SMART Reaction Client for the first time.

Note: It is possible to use SMART Reaction Client without SMART Reaction Manager running continuously. However, you will not have the ability to see status messages, and error logging will be disabled. See “Removing SMART Reaction from the Startup Folder” on page 17 for details.

What to do next:

You must prepare each server and peer workstation that will be used to store the backup and mirror data by enabling folder sharing. See the following:

- “Enabling Folder Sharing on Windows NT” on page 9
- “Enabling Folder Sharing on Windows 95” on page 10

After you enable folder sharing, create a set of default backup, mirror, and restore settings using SMART Reaction Manager. You must do this *before* you install SMART Reaction Client on the individual client workstations. During the SMART Reaction Client installation process, the program searches for the SMART Reaction Manager to which it is assigned, then automatically configures itself based on the configuration information provided by SMART Reaction Manager. This is the only time that SMART

Reaction Client is *required* to make and confirm contact with SMART Reaction Manager. See “Creating Backup, Restore, and Mirror Default Settings” on page 62 for instructions.

Enabling Folder Sharing on Windows NT

Use this procedure on any Windows NT server or peer workstation that will be used to store the data created from the backup or mirror process. Networking must be installed before you can enable folder sharing. Enable sharing on the folder or drive that will be used to store the backup and mirror data, then make sure that the guest account or the appropriate user accounts are enabled.

1. From the Windows NT Desktop, click on the **Start** button.
2. Select **Programs**.
3. Click on **Windows NT Explorer**.

   Note: In the following steps, you will be setting up a single drive or folder that will contain subfolders to store data from the backup and mirror processes. The subfolders will be created automatically by the SMART Reaction program during the backup and mirror operations.

   If you need to create a new folder for this purpose, create it now, then continue with the next step.

4. Using the right mouse button, click on the drive or folder to be shared for backup and mirror data.
5. Click on **Sharing...**. The Properties window opens.
6. Click on the **Shared as** radio button.
7. Click on **Permissions**. The Access Through Share Permissions window opens.
8. In the **Type of access** field, use the drop-down list to select **Full Control**.
9. Click on **OK**. The window closes.
10. In the Properties window, click on **OK**.
11. Close Windows NT Explorer.
12. Enable the guest account or appropriate user accounts as follows:
    a. From the Windows NT Desktop, click on the **Start** button.
    b. Select **Programs**.
    c. Select **Administrator Tools (Common)**.
    d. Click on **User Manager for Domains** or **User Manager**.

       Note: If you are using individual user logon IDs and need to add new user accounts, do so now before continuing with the next step.

    e. In the Username column, double-click on **Guest** (or one of the appropriate user accounts if you are using individual user logon IDs).
    f. Uncheck the **Account Disabled** check box.
    g. Click on **OK**.
    h. If you are using individual user logon IDs, repeat steps 12e through 12g for each applicable user account.
    i. Close the User Manager window.

Note: If you need additional help on enabling file sharing, refer to the Windows NT help system and Windows NT documentation.

Enabling Folder Sharing on Windows 95

Use this procedure on any Windows 95 peer workstation that will be used to store the data created from a backup or mirror operation. Enable sharing on the folders or drives that will be used to store the backup and mirror data.

1. From the Windows 95 desktop, using the right mouse button, click on any folder, then select **Properties**.
2. Look for a tab labeled **Sharing**.
   - If there *is* a tab labeled **Sharing**, close the folder, then go to Step 3.
   - If there *is not* a tab labeled **Sharing**, do the following:
     a. Open the Control Panel (Start → Settings → Control Panel).
     b. Double-click on **Network**.
     c. Click on **Client for Microsoft Networks** to highlight it.
     d. Click on **File and Print Sharing**.
     e. Check the box labeled "I want to be able to give others access to my files."
     f. Click on **OK**.
     g. Click on **OK** again. The Network window closes.
     h. Continue with Step 3.
3. Open Windows Explorer (Start → Programs → Windows Explorer).
4. Using the right mouse button, click on one of the folders or drives to be shared for backup and mirror data.
5. Click on **Sharing...**
6. Click on the **Sharing** tab.
7. Click on the **Shared as** radio button.
8. Type a Share Name (usually the folder name is fine.)
9. Click on **OK**.
10. Repeat steps 4 through 9 for each folder or drive to be shared.

Installing SMART Reaction Client

This installation procedure is divided into two parts:

- “Preparing the Client Workstation”
- “Installing the SMART Reaction Client Program” on page 14

It is important that the client is prepared correctly before you install the SMART Reaction Client program.

Preparing the Client Workstation

The steps for preparing the workstation are slightly different for Windows 95 and Windows NT.

- For Windows 95 clients, see “Preparing a Windows 95 Client Workstation” on page 11.
- For Windows NT Workstation clients, see “Preparing a Windows NT Client Workstation” on page 12.

Preparing a Windows 95 Client Workstation

1. From the Windows 95 desktop, click on the **Start** button.
2. Select **Settings**.
3. Click on **Control Panel**.
4. Double-click on **Network**.
5. On the Configuration page, locate the **Primary Network Logon** field and set it to **Client for Microsoft Networks**.
6. Also on the Configuration page, verify that TCP/IP is included in the list of installed network components.
   - If TCP/IP is listed, do the following:
     a. Click on **TCP/IP** so it is highlighted. Then, click on **Properties** and verify that an IP address and subnet mask are specified. If these are not specified, contact your network administrator to get an IP address and subnet mask, then type them in the fields provided.
     b. Click on **OK**.
     c. Click on the Identification tab and verify that the **Computer Name**, **Workgroup**, and **Computer Description** fields contain valid information. If these fields are blank, contact your network administrator for the information to put in these fields.
     d. Click on **OK**.

     Note: If you are prompted to restart the computer, select **Yes**. It might take a little longer than normal for the Windows 95 desktop to reappear while Windows 95 incorporates the changes.

     e. Continue with "Installing the SMART Reaction Client Program" on page 14.
   - If TCP/IP is not listed, do the following:
     a. Click on **Add**.
     b. Click on **Protocol** in the list of Network Components.
     c. Click on **Add**.
     d. Scroll down the list of Manufacturers, then click on **Microsoft**.
     e. Click on **TCP/IP** in the list of Network Protocols.
     f. Click on **OK**.

     Note: If a network device driver is not already installed, the Select a Device window appears. Do one of the following:

     – Click on the network adapter manufacturer, click on the adapter type, then click **OK**.

     - OR -

     – Click on **Have Disk** and follow the instructions to install the network device driver from the disk provided by IBM or the network adapter manufacturer.

     TCP/IP appears in your Installed Components list.

     g. Scroll down the Installed Components lists and click on **TCP/IP**.
     h. Click on the **Properties** button.
     i. Click on the IP Address tab.

j. Click on the **Specify an IP address** radio button, then enter a valid IP address and subnet mask address for your network. You can get this information from your network administrator.

k. Click on the Gateway tab.

l. In the **New Gateway** field, type your gateway address, then click on **Add**. You can get your gateway address from your network administrator.

m. Click on **OK**.

n. Click on the **Identification** tab. Then, enter the computer name, workgroup, and computer description in the fields provided. You can get this information from your network administrator.

o. Click on **OK**.

Note: Depending on your configuration, a message might appear asking you for the Windows 95 CD. If prompted, insert the CD into the CD-ROM drive, then click on **OK**.

p. A message appears prompting you to restart the computer. Select **Yes**. It might take a little longer than normal for the Windows 95 desktop to reappear while Windows 95 incorporates the changes. When the desktop reappears, continue with “Installing the SMART Reaction Client Program” on page 14.

Preparing a Windows NT Client Workstation

1. From the Windows NT desktop, click on the **Start** button.
2. Select **Settings**.
3. Click on **Control Panel**.
4. Double-click on **Network**.

   Note: If you get a message informing you that Windows networking is not installed, and asking you if you want to install it now, click on **No** and close the control panel. Then, go to “Installing Windows Networking” on page 13.

5. Click on the Protocols tab.
   - If **TCP/IP** is listed, click on the Identification tab and ensure that a computer name and workgroup name has been assigned. If either of these fields are blank, contact your network administrator for the correct information and type it in the appropriate fields.
   - If **TCP/IP** is not listed, do the following:

     a. Click on **Add**.

     b. Click on **TCP/IP Protocol**.

     c. Click on **OK**.

     d. When asked if you want to use DHCP, click on **Yes** or **No** based on your network needs. If you are not sure, contact your network administrator.

     e. When prompted that Windows NT needs to copy files, insert the Windows NT CD into the CD-ROM drive, modify the drive location (path) if needed, then click on **Continue.**

     f. After the files have been copied, click on the Bindings tab.

     g. Locate the **Show bindings for** field, select **all protocols** from the drop-down menu, then verify that **WINS Client (TCP/IP)** is listed.

     h. Click on **Close**. When the message appears asking if you you want to shut down and restart the computer, click on **Yes**.

6. Continue with “Installing the SMART Reaction Client Program” on page 14.

Installing Windows Networking

These instructions are provided to assist you in installing Windows Networking on a Windows NT workstation. You need to follow these instructions only if you discovered that Windows Networking was not installed while following the procedure in "Preparing a Windows NT Client Workstation."

Before you begin this procedure, you need to know the following information:

- Type of network adapter or network subsystem (manufacturer and model) that is installed in the client workstation
- IP Address
- Subnet mask
- Default gateway
- Host name
- Domain
- DNS Servers

You can get this information from your network administrator.

Depending on your network adapter and how it is configured, you might encounter some screens that are not referenced in this procedure. Use this procedure as a reference for those fields that require information from you.

To install Windows Networking:

1. From the Windows NT desktop, click on the **Start** button.
2. Select **Settings**.
3. Click on **Control Panel**.
4. Double-click on **Network**.
5. A message appears informing you that Windows networking is not installed, and asking you if you want to install it now. Click on **Yes**.
6. When the Network Setup Wizard window appears, ensure that **Wired to Network** is checked, then click on **Next**.
7. When you are prompted to select an adapter, click on the **Start Search** button.

   Note: If a network adapter is not found, click on the **Select from List** button, then do one of the following:

   - Select a matching adapter from the list provided, then click on **OK**.

     - OR -

   - Click on **Have Disk** and follow the instructions on the screen to install the network device driver from disk.
8. Click on **Next**.
9. Ensure that the **TCP/IP Protocol** check box is checked, then click on **Next**.
10. The network services are displayed.

    Note: You can add any additional services by doing the following:

    a. Click on **Select from List**
    b. Click on any of the additional services you want.
    c. Click on **Next**.

    Click on **Next**.

11. When a message appears informing you that Windows NT is ready to install networking components, click on **Next.**
12. Depending on your current configuration, you might receive a message that Windows NT needs to copy files. Insert the Windows NT CD, modify the drive location (path) if necessary, then click on **Continue**.
13. At the next window, click on **Continue** again.
14. When the Adapter Properties window appears, click on **OK**.
15. When the TCP/IP Setup window appears, click on **Yes** or **No** depending on your network setup. If you are not sure, contact your network administrator.
16. When the Microsoft TCP/IP Properties notebook appears, do the following:
    a. On the IP Address page, click on the **Specify an IP Address** radio button, then type in the IP address, subnet mask address, and default gateway address.
    b. On the DNS page, type in the host name and domain. Then, use the **Add** button to add the DNS servers in the **DNS Service Search Order** box.
    c. Click on **OK**.
17. At the Setup Wizard window, click on **Next**, click on **Next** again, then click on **Next** once more.
18. Click on **Finish**.
19. When you are prompted to restart the computer, click on **Yes**.

Installing the SMART Reaction Client Program

Before you begin:

- The client workstation must be prepared correctly. See "Preparing the Client Workstation" on page 10 for details.
- Contact your network administrator and find out the *name* of the SMART Reaction Manager that will be servicing you. You will need this information later in this procedure.
- The SMART Reaction Manager assigned to service you must be running when SMART Reaction Client is being installed and started for the first time.
- In order to ensure correct installation and operation, use SMART Reaction Manager to configure each client workstation *before* installing the SMART Reaction Client program on the clients. See "Creating Backup, Restore, and Mirror Default Settings" on page 62 for details.

Important: SMART Reaction Client is distributed in two ways:

- As a downloadable, self-extracting executable file from the World Wide Web (for models 6561 and 6591 only).
- As part of the ClientCare package on the *Ready-to-Configure Utility Program CD*.

The installation procedure is different for these two distribution methods.

- For the Web-based version, see "Installing the Web-Based Version" on page 15.
- For the CD-based version, see "Installing ClientCare" on page 15.

Installing the Web-Based Version

To install SMART Reaction Client:

1. Download the SMART Reaction Client installation file from World Wide Web and place it in its own folder.
2. Run the self-extracting executable file SMARTC.EXE to unpack the files. These are the installation files, including the setup file SETUPSC.EXE, which you will use in a later step.
3. Close all open windows and programs.
4. From the Windows desktop, click on the **Start** button.
5. Click on **Run**.
6. Type the path to the SETUPSC.EXE file, then click on **OK**.
7. The Installation Wizard is displayed.
   - If you are prompted for the name of the *Manager*, type the name of the SMART Reaction Manager that will be servicing this client workstation. If you are not sure of the name, contact your network administrator.
   - Follow the instructions on the screen to install SMART Reaction Client to your preferred location. The default location is C:\SRCLIENT.
   - When the installation is complete, and you are prompted to restart Windows, click on **Yes**.

     The installation Wizard assigns this copy of SMART Reaction Client a name that matches the *computer name* defined in the Identification tab of the Network notebook (accessible through the Control Panel). It also adds SMART Reaction Client to the Startup folder, so a portion of SMART Reaction Client automatically starts each time the client workstation is started.

What to do next:

Continue with "Starting SMART Reaction Client for the First Time" on page 16.

Installing ClientCare

To install SMART Reaction Client as part of ClientCare:

1. Insert the *Ready-to-Configure Utility Program CD* into the CD-ROM drive.
2. From the Windows desktop, click on the **Start** button.
3. Click on **Run**.
4. Type `d:\IBMSETUP`

   (where *d* is the letter assigned to your CD-ROM drive.)

   Then click on **OK**.

   The title screen appears.
5. Click on **Continue**. The main selection screen appears.
6. Click on **Install Applications and Device Drivers**. The program installation screen appears.
7. In the left box, click on **IBM ClientCare Setup**, then click on **Add**. **IBM ClientCare Setup** moves to the right box.
8. Click on **Install** and follow the instructions on the screen.

Note: During the installation process, you will be asked to provide the name of a SMART Reaction Manager. Type the name of the SMART Reaction Manager that will be servicing this client workstation. If you are not sure of the name, contact your network administrator.

9. When the installation is complete, and you are prompted to restart Windows, click on **Yes**.

   The installation Wizard assigns this copy of SMART Reaction Client a name that matches the *computer name* defined in the Identification tab of the Network notebook (accessible through the Control Panel). It also adds SMART Reaction Client to the Startup folder, so a portion of SMART Reaction Client automatically starts each time the client workstation is started.

What to do next:

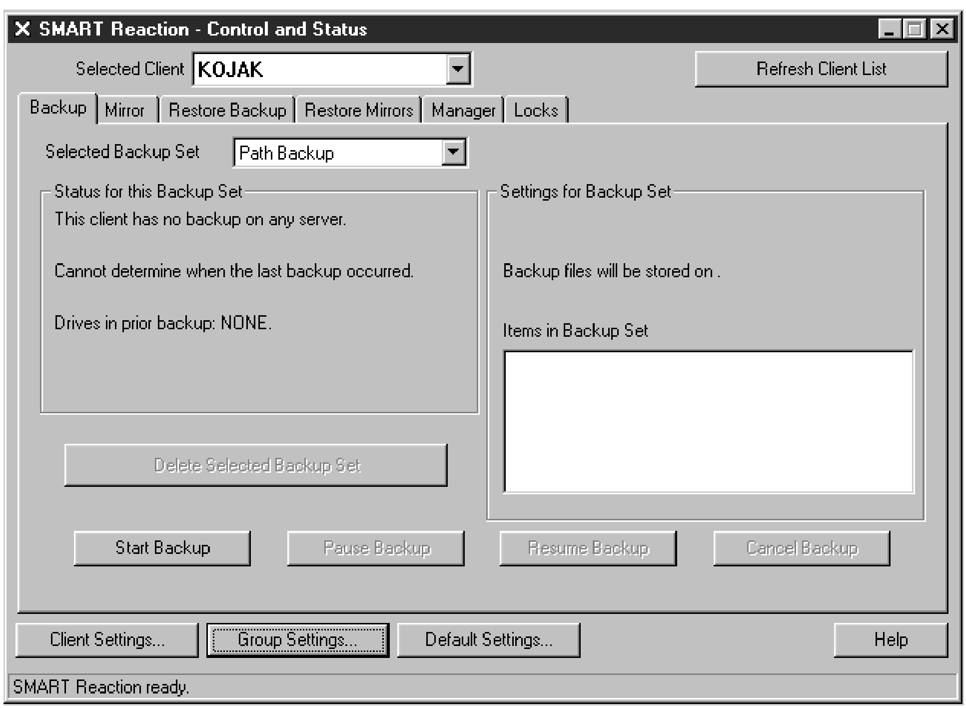
Continue with “Starting SMART Reaction Client for the First Time.”

Starting SMART Reaction Client for the First Time

When SMART Reaction Client starts for the first time, (when Windows NT or Windows 95 restarts after the installation process) it looks for the SMART Reaction Manager to which it is assigned and requests a configuration. If it does not find the SMART Reaction Manager, it stops loading and becomes inactive. Once SMART Reaction Client has established contact with SMART Reaction Manager, it no longer needs to establish contact with SMART Reaction Manager on subsequent restarts to remain operational.

When SMART Reaction Client starts from the Startup folder, it starts in a minimized mode and places an icon in the System Tray to indicate that it is active.

Double-click on the icon to bring up the Control and Status window.



Note: The window shown here is from SMART Reaction Manager. SMART Reaction Client does not have some of the buttons and fields shown.

You use this window to configure the SMART Reaction Backup, Restore, and Mirror programs. When using any of these programs, do not close this window; minimize it. Closing the window disables the SMART Reaction Backup, Restore, and Mirror programs

To minimize the window, click on the minimize button in the title bar. When SMART Reaction Client is minimized, the icon remains in the System Tray to show that it is active. The icon also provides easy access to the Control and Status window, while keeping it out of the Alt+Tab program-switching cycle.

Note: By default, the Backup/Restore/Mirror portion of SMART Reaction Client is started each time you start your client workstation. If you do not want to use this portion of SMART Reaction, you can remove it from the startup folder.

Removing SMART Reaction from the Startup Folder

If for any reason, you want to remove SMART Reaction from the startup folder, you can do so by deleting one of the following shortcuts:

- Windows 95:

  `c:\Windows\Start Menu\Programs\Startup\SMART Reaction Client or Manager`

- Windows NT Workstation:

  `c:\Winnt40\Profiles\Administrator\Start Menu\Programs\Startup\SMART Reaction Client or Manager`

- Windows NT Server

  `c:\Winnt\Profiles\Administrator\Start Menu\Programs\Startup\SMART Reaction Client or Manager`

To restart SMART Reaction Manager or SMART Reaction Client after removing it from the Startup folder, see “Manually Starting the SMART Reaction Backup/Restore/Mirroring Function.”

Manually Starting the SMART Reaction Backup/Restore/Mirroring Function

If for any reason you close the Control and Status window, use the following procedure to reactivate it:

1. From the desktop, click on the **Start** button.
2. Select **Programs**.
3. Select **SMART Reaction**.
4. Select **SMART Reaction Client** or **SMART Reaction Manager**, depending on which version of the program you are running.

   The SMART Reaction Response Summary window appears.
5. From the Response Summary window, click on **Edit**.

   The SMART Response Configuration notebook appears.
6. Click on the Backup/Restore/Mirror tab.
7. Click on the radio button for either SMART Reaction Backup or SMART Response Mirroring.
8. Click on **Configure SMART Reaction**.

   The Control and Status window appears.
9. Click on the minimize button.

The window disappears, but an icon is placed in the System Tray to show that the SMART Reaction Backup/Restore/Mirror function is active.

10. Close the SMART Response Configuration notebook.

Starting SMART Reaction from the Start Menu

To access the scheduling, messaging, and profile portions of SMART Reaction (the Response Summary window), do the following:

1. From the desktop, click on the **Start** button.
2. Select **Programs**.
3. Select **SMART Reaction**.
4. Select **SMART Reaction Client** or **SMART Reaction Manager**, depending on which version of the program you are running.

   The SMART Reaction Response Summary window appears.

Chapter 3. The SMART Reaction Interface

There are four major components in the SMART Reaction interface:

- The Response Summary window
- The Configuration notebook
- The Configure Scheduled Events window
- The Control and Status window

With the exception of the Control and Status window, these components have the same fields and functions in both SMART Reaction Manager and SMART Reaction Client. In SMART Reaction Manager, the Control and Status window has:

- An additional tab labeled Locks
- An additional button labeled Group Settings...
- An additional button labeled Default Settings...
- An additional button labeled Refresh Client List
- An additional field labeled Selected Client

The Group Settings... and Default Settings... buttons give the network administrator access to the Group Settings notebook and the Default Settings notebook respectively. These notebooks allow the network administrator to build backup, restore, and mirror configurations remotely and limit end-user access to the various fields and functions.

Because these interface components are so similar, the Manager and Client interface are discussed together, and differences are pointed out when necessary.

When working with the SMART Reaction interface, there are few key concepts to keep in mind:

- A *response* is how IBM SMART Reaction reacts to a PFA alert or a scheduled event.
- The six possible responses are:
  - Send an E-mail message
  - Send a numeric pager message
  - Send an alphanumeric pager message
  - Backup, restore, or mirror the hard disk
  - Run a custom program (by issuing a command)
  - Display a message box at the local workstation
- A *profile* contains all pertinent data required to carry out a specific response, and each profile is assigned a descriptive name. For example, if you set up IBM SMART Reaction to send E-mail to your supervisor and to your network administrator, you will have two profiles. Each profile will contain the appropriate E-mail address, subject, cc: information, and message; each profile also will be assigned a unique, descriptive name of your choice, such as *Email administrator* and *Email supervisor*. Or, because these are both E-mail responses, you could use a common profile to send E-mail to your supervisor and copy (cc:) your network administrator.
- Once you have created and saved a profile, with the exception of a Scheduler profile, it is automatically applied to the response.
- Only a backup or mirroring operation can be scheduled. All other responses are triggered by PFA alerts.
- You create scheduled events by associating a *Scheduler profile* with a *response profile* in the Configure Scheduled Events window.

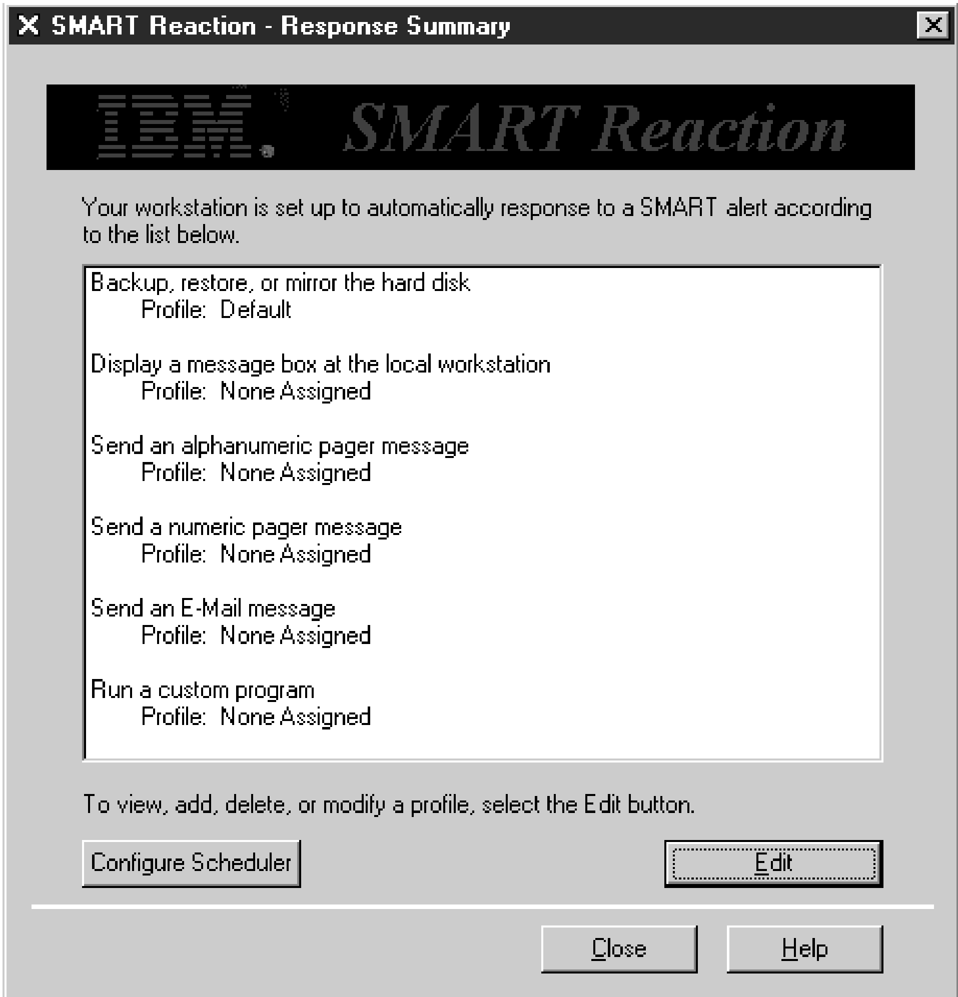
- SMART Reaction Manager has overall control of all processes associated with the SMART Reaction Client backup, restore, and mirror functions. The network administrator can use SMART Reaction Manager to enable or disable any field or function within SMART Reaction Client that is associated with the integrated backup, restore, and mirror functions. Disabled fields are grayed out. Therefore, users of SMART Reaction Client might not be able to perform some of the procedures described in this guide.

Response Summary Window

When you start IBM SMART Reaction Client from the Start menu, the first screen to appear (after the introductory screen) is the Response Summary window. The Response Summary window contains a list of the six possible responses and the profile or profiles assigned to each response. In addition, four buttons are provided:

- Edit button: Use this button to open the Configuration notebook, where you can:
  - Create a new profile
  - Assign a profile to a response
  - Delete an existing profile
  - Modify an existing profile
- Configure Scheduler button: Use this button to schedule or unschedule a hard disk backup or mirroring operation. See “Scheduling an Event” on page 79 for details.
- Close button: Use this button to close the Response Summary window. Closing this window does not close the SMART Reaction backup, mirror, and restore functions.
- Help button: Use this button to access the help system associated with the messaging and scheduling functions.

The following screen shows the Response Summary window before any profiles have been assigned.



Configuration Notebook

The Configuration notebook contains the following pages:

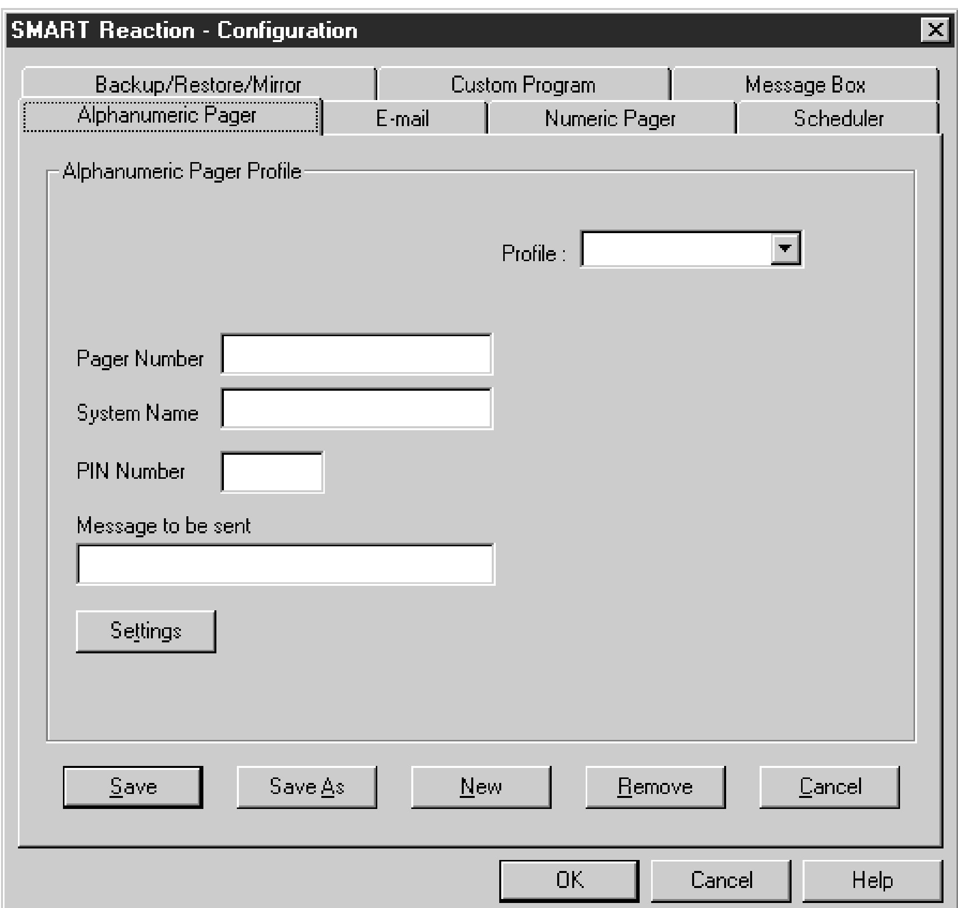
- Alphanumeric Pager: Use this page to create profiles that dial up a paging system and transmit an alphanumeric message. For details, see "Alphanumeric Pager Page" on page 22.
- Backup/Restore/Mirror: Use this page to create profiles that launch a hard disk backup, restore, or mirroring program. For details, see "Backup/Restore/Mirror Page" on page 24.
- Custom Program: Use this page to create profiles that launch a specified application program. For details, see "Custom Program Page" on page 26.
- E-mail: Use this page to create profiles that send E-mail messages. For details, see "E-Mail Page" on page 27.
- Message Box: Use this page to create profiles that display a pop-up message. For details, see "Message Box Page" on page 28.
- Numeric Pager: Use this page to create profiles that dial up a paging system and transmit a numeric message. For details, see "Numeric Pager Page" on page 30.
- Scheduler: Use this page to create profiles that define a specific date, time, and year that a backup or mirror event will take place and, if it is to be repeated, the frequency at which the event will take place. For details, see "Scheduler Page" on page 32.

Each page contains the same set of buttons:

- Save: Use this button to save a profile after you create a new one or modify an existing one. Once you have created and saved a profile, with the exception of the Scheduler profile, it is automatically assigned to the appropriate response. For information about using a Scheduler profile, see “Scheduling an Event” on page 79.
- Save As: Use this button to save a profile under a new name after modifying it. Any profile, with the exception of a Scheduler profile, that is saved under a new name is automatically assigned to the appropriate response. For information about using a Scheduler profile, see “Scheduling an Event” on page 79.
- New: Use this button to clear all fields on the page and assign a new profile name.
- Remove: Use this button to delete an existing profile.
- Cancel: Use this button to delete any unsaved data. If you are modifying an existing profile, all fields will revert back to the content they had when the profile was last saved.

Alphanumeric Pager Page

Use this page to create profiles that dial up a paging system and transmit an alphanumeric message.



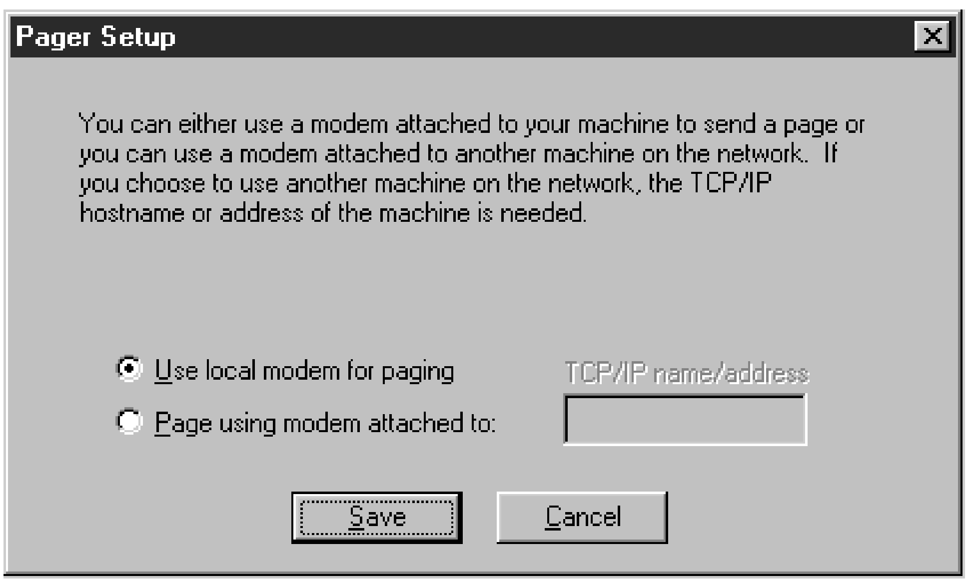
This page has the following components:

- **Profile:** This field contains the name of the profile for the properties shown on this page. You cannot type any information in this field. The name is automatically placed in this field when a new profile is created and saved. Names are limited to 64 characters. To select another existing profile, click on the arrow at the end of the field, then click on the profile name in the drop-down list.

- **Pager Number:** This field contains the telephone number of the paging system, including any numbers required for an outside line. If the number is outside your local calling area, you must also include the area code and country code, if required. Only numeric characters are valid. Spaces, dashes, and other characters are not allowed.
- **System Name**: This field contains a unique identifier for your computer. You can assign a name, use the Internet Protocol (IP) address, serial number, computer name, or any other identifier. This field is limited to 25 characters.
- **PIN Number:** Use this field to enter the personal identification number (PIN) required to access the alphanumeric pager.
- **Message to be sent:** This field contains the alphanumeric message that will be transmitted to the paging system. Messages are limited to 64 characters. Characters can be uppercase, lowercase, or mixed case. All characters on the keyboard are supported.
- **Settings:** Use this button to define whether you will be using a local modem (one installed in or attached to the computer you are using) or a remote modem (one installed in or attached to another computer on the network). If you select a remote modem, you will need to provide either a TCP/IP host name or the numeric address of the computer with the modem.

  Note: If you use a remote modem, either SMART Reaction Manager or SMART Reaction Client must be installed on the computer that has the modem.

  The following shows the window that opens when you click on the Settings button:



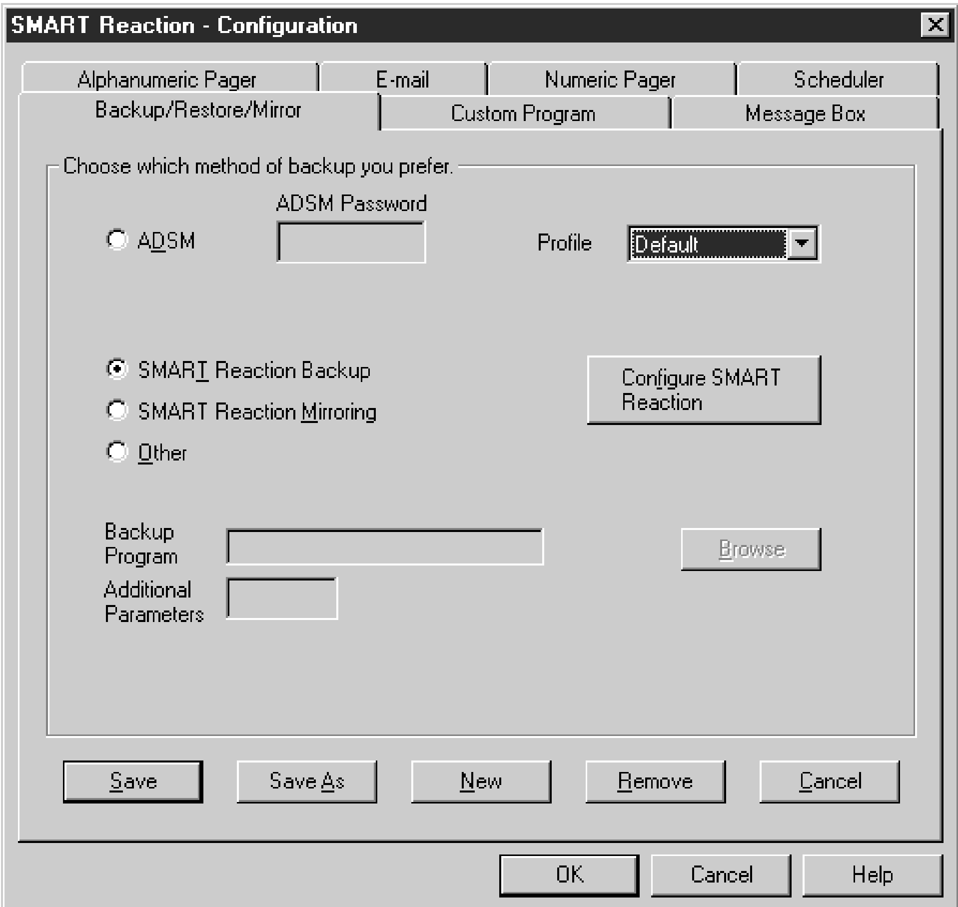
  By default, this window also appears automatically the first time you click on the Alphanumeric Pager tab.

Related topics:

- "Creating an Alphanumeric Pager Profile" on page 72
- "Deleting a Profile" on page 79
- "Modifying an Existing Profile" on page 78

Backup/Restore/Mirror Page

Use this page to create profiles that launch a hard disk backup, restore, or mirroring program.



This page contains the following components:

- **Profile:** This field contains the name of the profile for the properties shown on this page. You cannot type any information in this field. The name is automatically placed in this field when a new profile is created and saved. Names are limited to 64 characters. To select another existing profile, click on the arrow at the end of the field, then click on the profile name in the drop-down list.
- **Application radio buttons:** (You can select one radio button per profile.)
  - ADSM: Selecting this button configures IBM SMART Reaction to use the IBM ADSTAR Distributed Storage Manager program. ADSM is not provided with IBM SMART Reaction. Therefore, ADSM must be installed and configured before you use this button. If you select the ADSM radio button, the **ADSM Password** field becomes active. You must type your individual ADSM password into this field before SMART Reaction will interact with ADSM.
  - SMART Reaction Backup: This button selects the backup program provided with IBM SMART Reaction. When you select this button, the Configure SMART Reaction button becomes active. Clicking on the Configure SMART Reaction button brings up the Control and Status window, from which you can configure the SMART Reaction backup program.
  - SMART Reaction Mirroring: This button selects the mirroring program provided with IBM SMART Reaction. When you select this button, the Configure SMART Reaction button becomes active.

Clicking on the Configure SMART Reaction button brings up the Control and Status window, from which you can configure the SMART Reaction mirroring program.

– Other: This button selects any other backup, restore, or mirroring program of your choice that can be started from a command line. When you select this button, the **Backup Program** field, the **Additional Parameters** field, and Browse button become active.

  You can use the browse button to select the program of your choice, which will appear in the **Backup Program** field. You can then type any additional command-line parameters supported by the program in the **Additional Parameters** field.

- **Backup Program:** This field contains the complete path and file name of the backup program to be used. You can type in the path and file name or use the Browse button to locate and select the backup program. This field is active only when the Other radio button has been selected.
- **Additional Parameters:** This field contains any additional command-line parameters required by the backup program. For details, refer to your backup-program documentation.

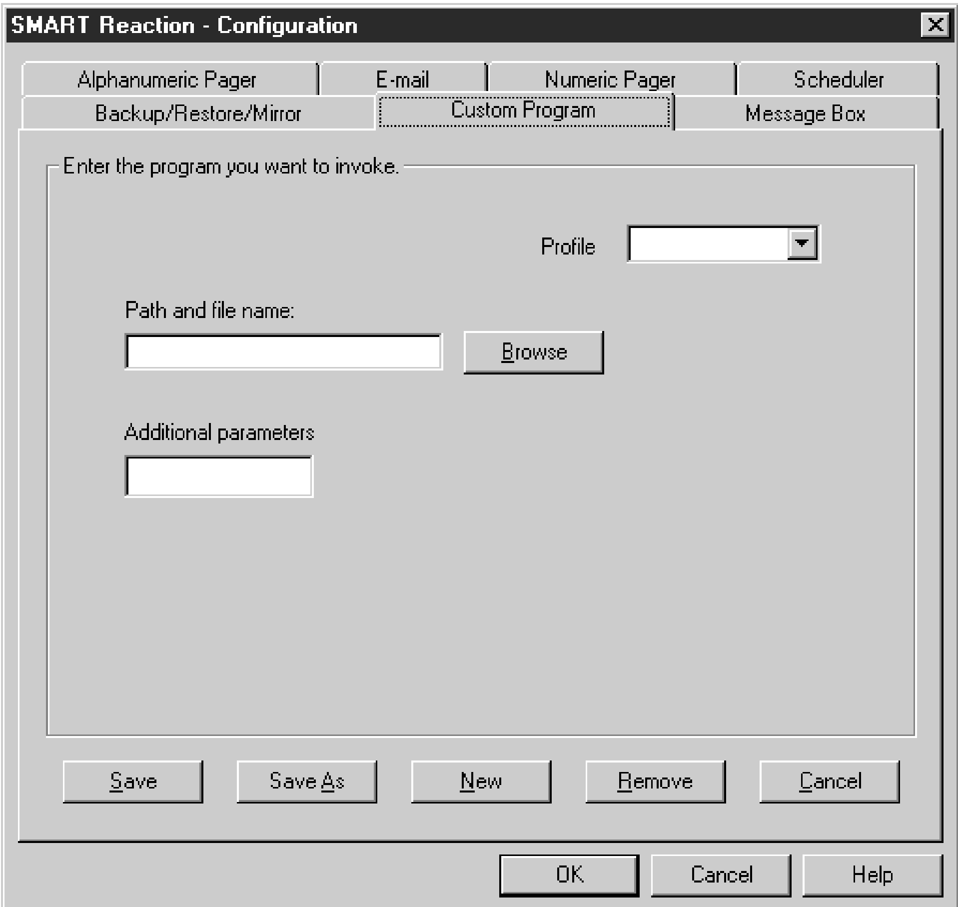
Only one Backup profile and one Mirror profile are permitted.

Related topics:

- “Creating a Hard Disk Backup Profile” on page 72
- “Creating a Hard Disk Mirror Profile” on page 73
- “Deleting a Profile” on page 79
- “Modifying an Existing Profile” on page 78
- “Control and Status Window” on page 35

Custom Program Page

Use this page to create profiles that launch a specified application program.



This page contains the following fields:

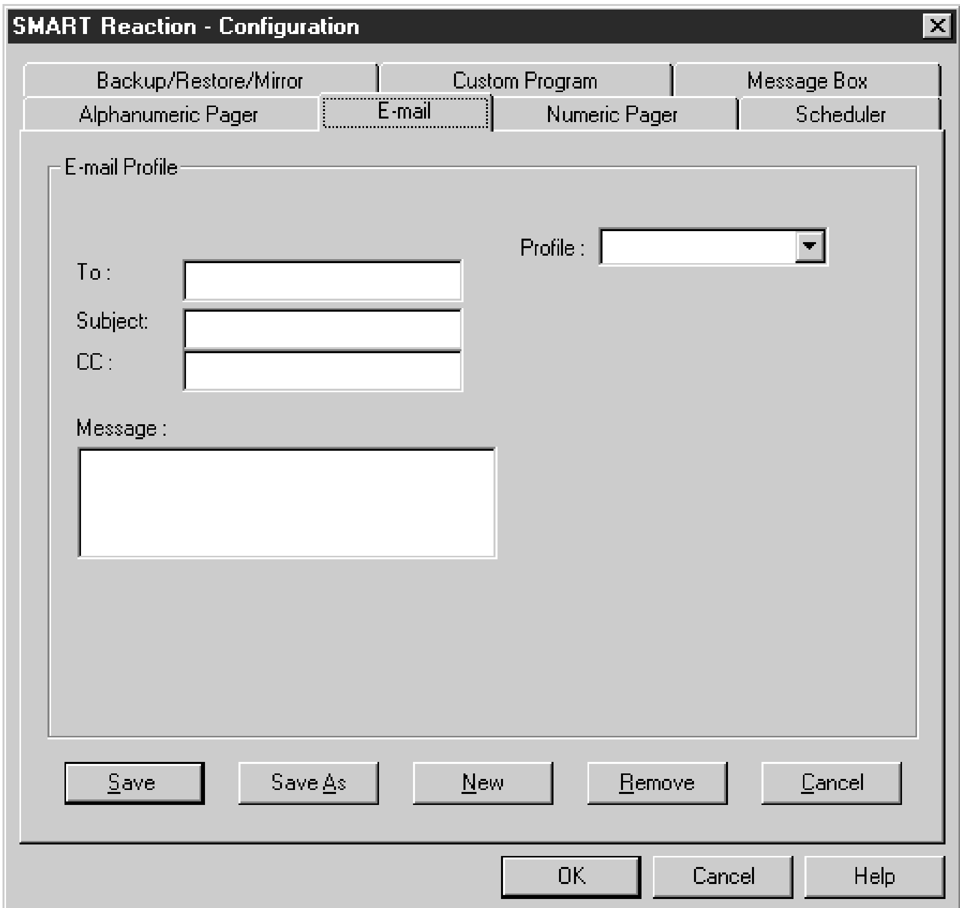
- **Profile:** This field contains the name of the profile for the properties shown on this page. You cannot type any information in this field. The name is automatically placed in this field when a new profile is created and saved. Names are limited to 64 characters. To select another existing profile, click on the arrow at the end of the field, then click on the profile name in the drop-down list.
- **Path and file name:** This field contains the complete path and file name of the program to be launched. You can type in the path and file name or use the Browse button to locate and select the program.
- **Additional Parameters:** This field contains any additional command-line parameters required by the selected program. For details, refer to your application-program documentation.

Related topics

- "Creating a Custom Program Profile" on page 77
- "Deleting a Profile" on page 79
- "Modifying an Existing Profile" on page 78

E-Mail Page

Use this page to create profiles that send E-mail messages. To use the E-mail feature, you must have the Microsoft Mail program installed. The first time you use this page, an E-mail wizard will guide you through creating a new Windows Messaging profile that uses Microsoft Mail.



This page contains the following fields:

- **Profile:** This field contains the name of the profile for the properties shown on this page. You cannot type any information in this field. The name is automatically placed in this field when a new profile is created and saved. Names are limited to 64 characters. To select another existing profile, click on the arrow at the end of the field, then click on the profile name in the drop-down list.
- **To:** This field contains the complete E-mail address of the primary recipient of the message. This field is limited to 40 characters. Multiple E-mail addresses are separated by commas, spaces, or semicolons.
- **Subject:** This field contains the subject of the message. This field is limited to 40 characters.
- **CC:** This field contains the complete E-mail address of secondary recipients of the message. This field is limited to 40 characters. Multiple E-mail addresses are separated by commas, spaces, or semicolons.
- **Message:** This field contains the body of the message. This field is limited to 1024 characters.

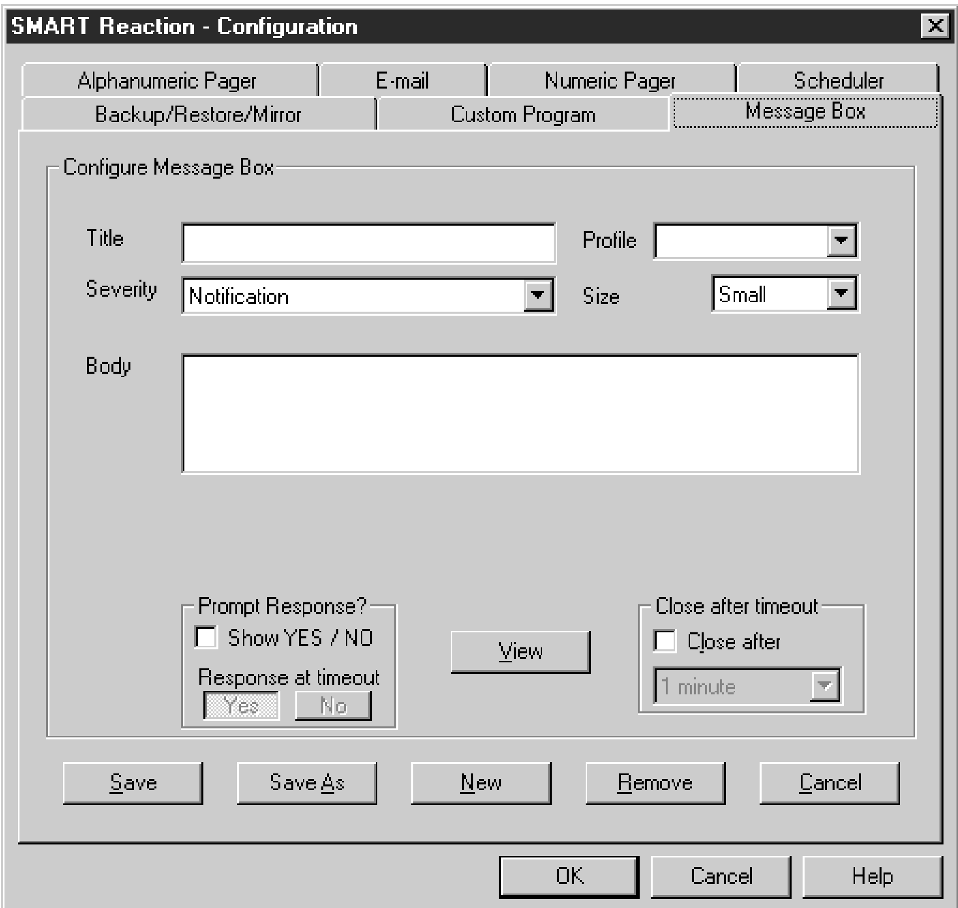
Related topics:

- “Creating an E-mail Profile” on page 74

- “Deleting a Profile” on page 79
- “Modifying an Existing Profile” on page 78

Message Box Page

Use this page to create a profile that displays a pop-up message.



This page contains the following fields:

- **Profile:** This field contains the name of the profile for the properties shown on this page. You cannot type any information in this field. The name is automatically placed in this field when a new profile is created and saved. Names are limited to 64 characters. To select another existing profile, click on the arrow at the end of the field, then click on the profile name in the drop-down list.
- **Title:** This field contains the text that will appear on the title bar of a pop-up message. This field is limited to 64 characters.
- **Severity:** This field contains the severity category that will appear at the top of the pop-up message. Select the severity from the drop-down list. The choices are (from least severe to most severe):
  - Information
  - Notification
  - Warning
  - Error
  - Critical error

  To make a selection, click on the arrow at the end of the field, then double-click on the item.

- **Size:** This field contains the physical size of the pop-up message. Select the size from the drop-down list. The choices are:
  - Small
  - Medium
  - Large
- **Body** This field contains the message text. Body text is limited to 320 characters.
- **Prompt Response:**
  - **Show YES/NO:** When the **Show YES/NO** check box is not checked, the pop-up message will contain an OK button. When the **Show YES/NO** check box is checked, the message will contain Yes and No buttons instead of an OK button.
  - **Response at timeout:** The **Response at timeout** field is active only if the **Show YES/NO** check box is checked and the **Close after timeout** check box is checked. This field defines the default response (Yes or No) to use after a specified timeout period.
- **Close after timeout:** This field defines how long a message will be displayed if there is no response by a user. If the check box is not checked, the message will display indefinitely. If the check box is checked, you specify the timeout period from a drop-down list. Choices range from 30 seconds to 5 hours.

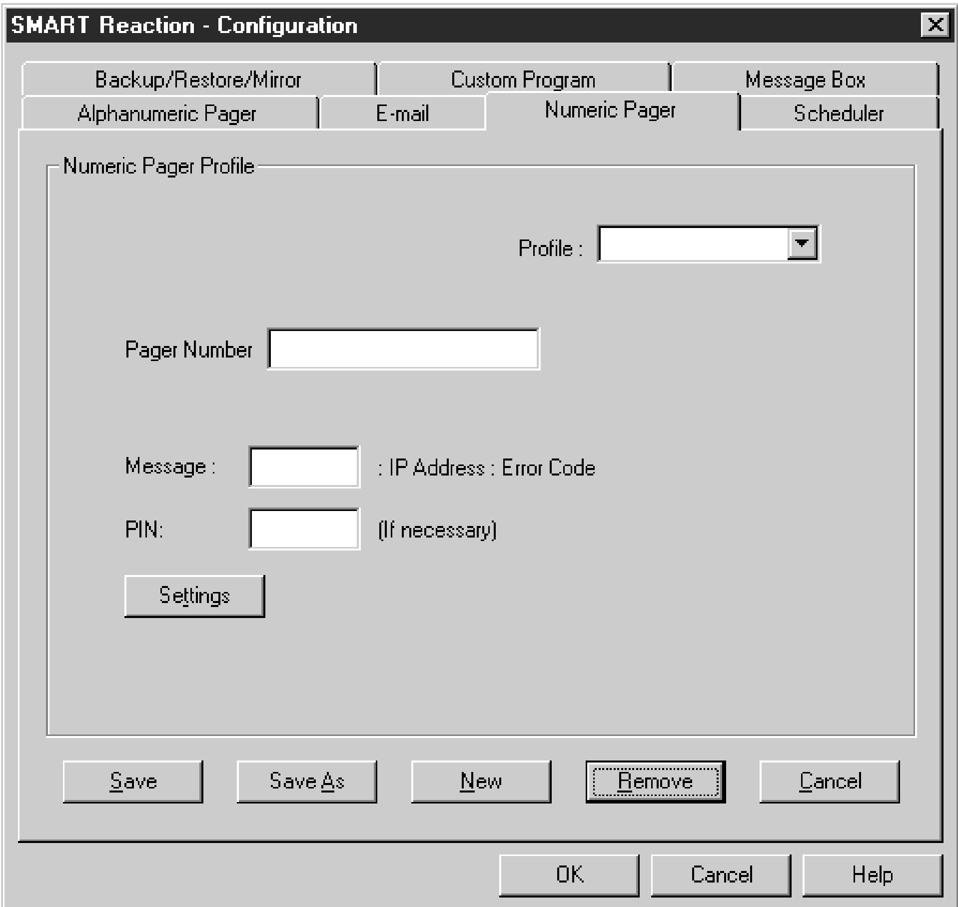
After composing a message box, you can preview it by clicking on **View**. The following is an example of a pop-up message.

Related topics:

- “Creating a Message Box Profile” on page 76
- “Deleting a Profile” on page 79
- “Modifying an Existing Profile” on page 78

Numeric Pager Page

Use this page to create profiles that dial up a paging system and transmit a numeric message.

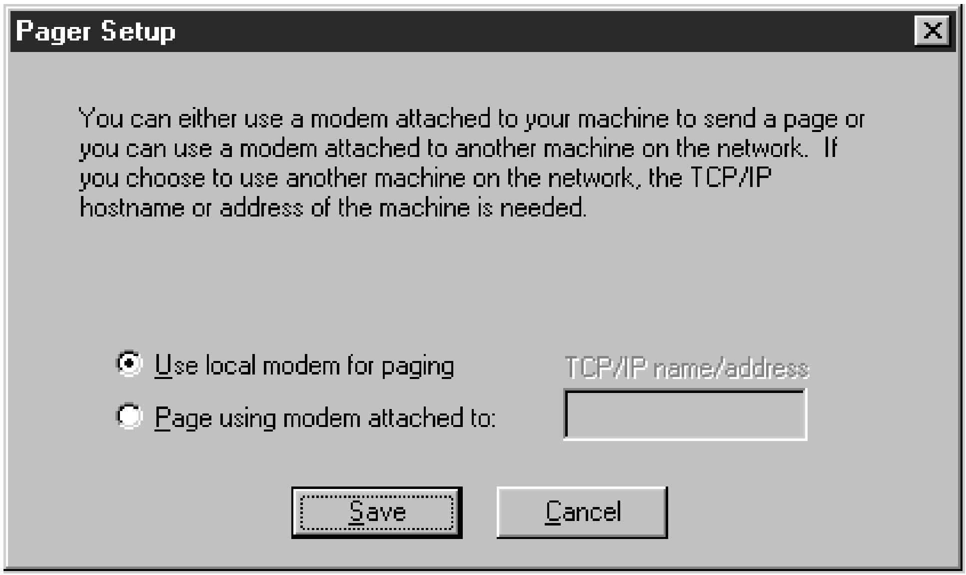


This page contains the following fields and buttons:

- **Profile:** This field contains the name of the profile for the properties shown on this page. You cannot type any information in this field. The name is automatically placed in this field when a new profile is created and saved. Names are limited to 64 characters. To select another existing profile, click on the arrow at the end of the field, then click on the profile name in the drop-down list.
- **Pager Number:** This field contains the telephone number of the paging system, including any numbers required for an outside line. If the call is outside your local calling area, you must also include the area code and country code, if required. Only numeric characters are valid. Dashes, spaces, and other characters are not allowed.
- **Message:** This field contains the numeric message that will be transmitted to the paging system. Although this field usually contains your telephone number, you can use any numeric message up to 15 characters in length, such as an Internet Protocol (IP) address or error code.
- **PIN:** Use this field to enter the personal identification number (PIN) required to access some numeric pagers. Only numeric characters are valid. Dashes, spaces, and other characters are not allowed.
- **Settings:** Use this button to define whether you will be using a local modem (one installed in or attached to the computer you are using) or a remote modem (one installed in or attached to another computer on the network). If you select a remote modem, you will need to provide either a TCP/IP host name or the numeric address of the computer with the modem.

Note: If you use a remote modem, either SMART Reaction Manager or SMART Reaction Client must be installed on the computer that has the modem.

The following shows the window that opens when you click on the Settings button:



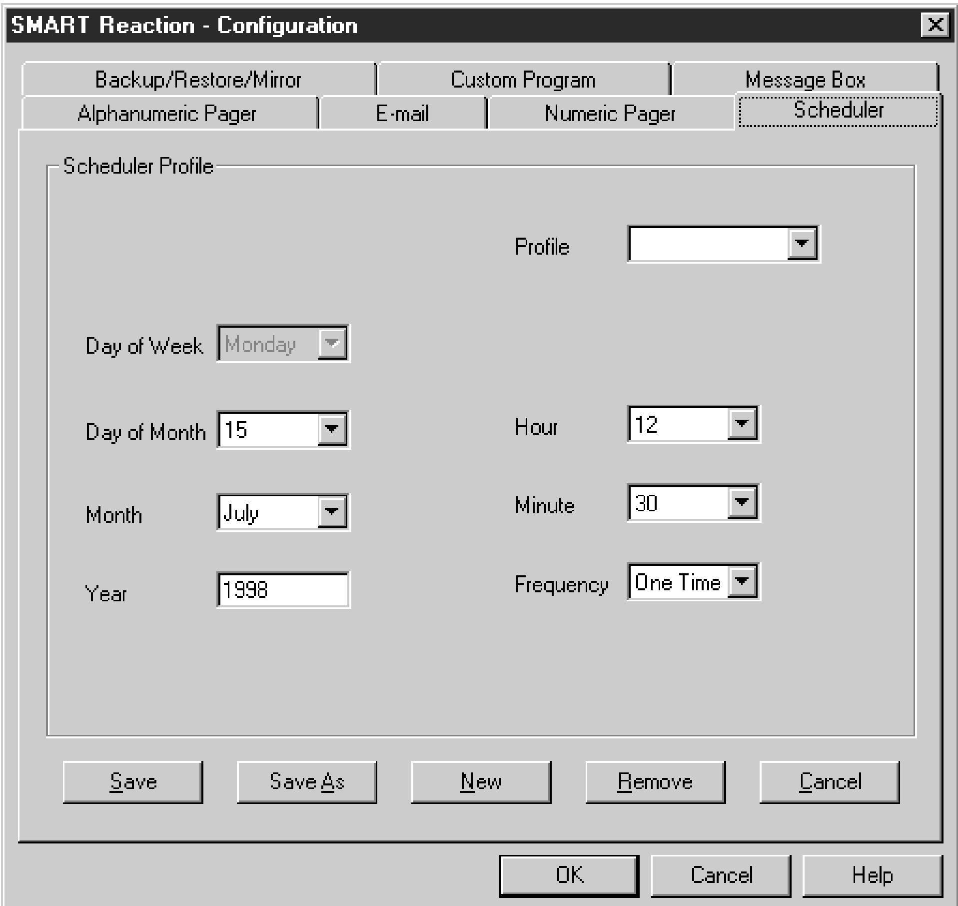
By default, this window also appears automatically the first time you click on the Numeric Pager tab.

Related topics:

- "Creating a Numeric Pager Profile" on page 75
- "Deleting a Profile" on page 79
- "Modifying an Existing Profile" on page 78

Scheduler Page

Use this page to create a profile that defines a specific date, time, and year that a backup or mirror event will take place and, if it is to be repeated, the frequency at which the event will take place. If a backup or mirror operation is triggered by a PFA alert only, a Scheduler profile is not needed.



This page contains the following fields:

- **Profile:** This field contains the name of the profile for the properties shown on this page. You cannot type any information in this field. The name is automatically placed in this field when a new profile is created and saved. Names are limited to 64 characters.
- **Frequency:** This field defines how often an event will take place. Make selections from the drop-down menu. You can select from:
  - One time
  - Hourly
  - Daily
  - Weekly
  - Monthly
  - Yearly
- **Day of Week:** This field is active only if Weekly has been selected in the **Frequency** field. This field contains the day of the week that the event will take place. Make selections from the drop-down menu.

- **Day of Month:** This field contains the day of the month that an event will take place. If this is a repeating event, this field shows the first day that the event will take place. Make selections from the drop-down menu. This field is active if any selection other than Weekly has been selected in the **Frequency** field.
- **Month:** This field shows the month that an event will take place. If this is a repeating event, this field shows the first month in which the event will take place. Make selections from the drop-down menu. This field is active if any selection other than Weekly has been selected in the **Frequency** field.
- **Year:** This field shows the year that an event will take place. If this is a repeating event, this field shows the first year in which the event will take place. Make selections from the drop-down menu. This field is active if any selection other than Weekly has been selected in the **Frequency** field.
- **Hour:** This field shows the hour at which an event will take place. This field uses a 24-hour clock format. Make selections from the drop-down menu. For example, to schedule a response for 8:00 AM, select 8; for 8:00 PM, select 20.
- **Minute:** This field shows the minute at which an event will take place. Make selections from the drop-down menu.

Related topics:

- “Creating a Scheduler Profile” on page 78
- “Deleting a Profile” on page 79
- “Modifying an Existing Profile” on page 78
- “Scheduling an Event” on page 79
- “Unscheduling an Event” on page 80
- “Viewing Scheduled Events” on page 80

Configure Scheduled Events Window

Use this window to schedule, unschedule, or view a hard disk backup or mirroring event. You gain access to this window by pressing the Configure Scheduled Events button in the Response Summary window.

This window has the following fields:

- **Scheduled Event Profile:** This field contains the name of the Scheduler profile that you want to use. Select the Scheduler profile from the drop-down list.
- **Backup/Mirroring Profile:** This field contains the name of the Backup or Mirroring profile that you want to use. Select the appropriate profile from the drop-down list.

After selecting the desired profiles, click on **Add** to schedule an event or **Remove** to unschedule an event. The scheduled event is shown in the summary box. Click on **OK** to close the window.

Related topics:

- “Creating a Hard Disk Backup Profile” on page 72
- “Creating a Hard Disk Mirror Profile” on page 73
- “Scheduling an Event” on page 79
- “Unscheduling an Event” on page 80
- “Viewing Scheduled Events” on page 80

Control and Status Window

The Control and Status window is used to configure the Backup, Restore, and Mirror programs that are integrated into SMART Reaction Manager and SMART Reaction Client. This window has no effect on IBM ADSM or any other backup program with which SMART Reaction interacts.

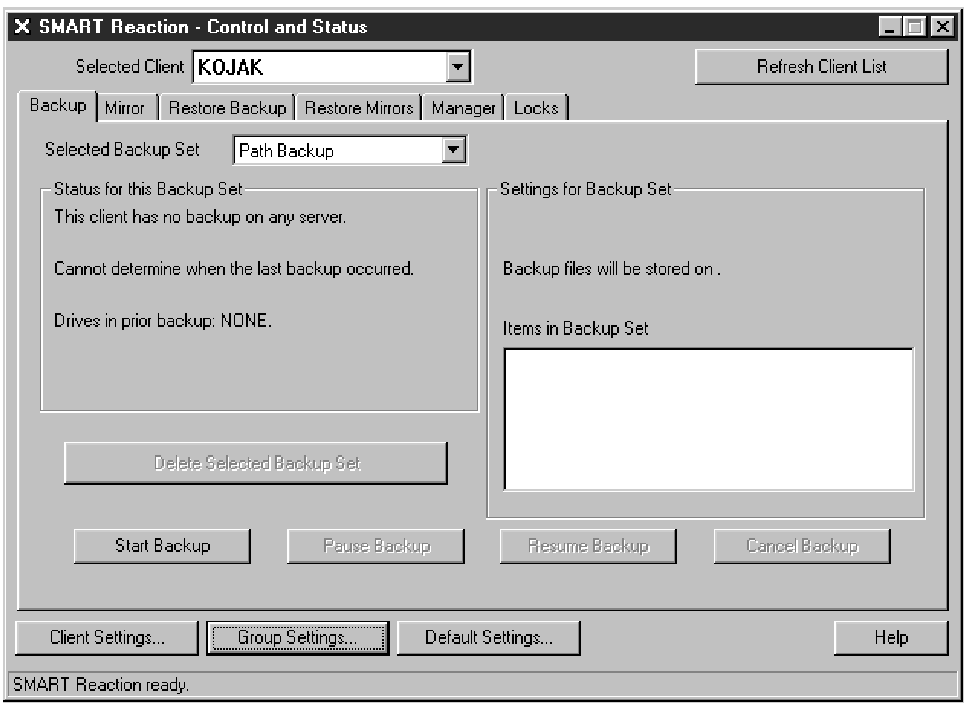
You access this window in one of two ways:

- Click on the icon in the System Tray if the backup/restore/mirror function of SMART Reaction is active and running in the background.

  -OR-

- Click on the **Configure SMART Reaction** button on the Backup/Restore/Mirror page of the Configuration notebook. See “Backup/Restore/Mirror Page” on page 24 for details.

Within the Control and Status window, SMART Reaction Manager has some functions and fields that are not available in SMART Reaction Client. Only the SMART Reaction Manager version of this window is shown in this section, but any field or function that is not available in SMART Reaction Client will be noted.



The network administrator uses SMART Reaction Manager to specify the functions and network resources that are available to end users using SMART Reaction Client. This allows the network administrator to keep tight control over scarce resources, while enabling specific functions based on end-user requirements. SMART Reaction Manager has the ability to disable end-user access to virtually any function or field associated with this window. Disabled fields are visible through SMART Reaction Client, but they are grayed out and cannot be modified by the end user.

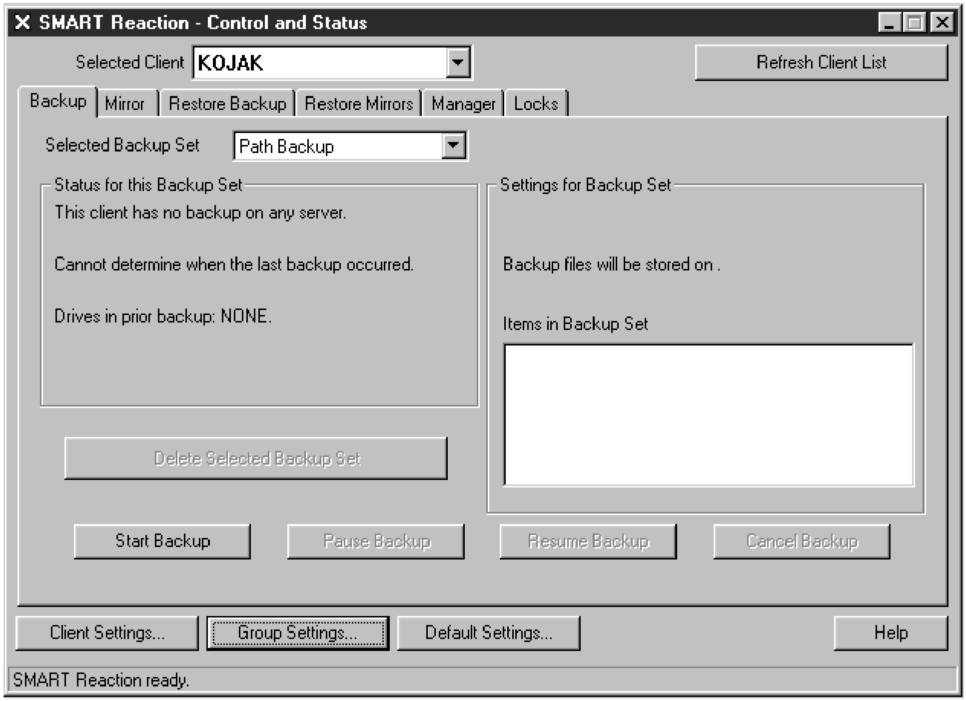
The Control and Status window contains the following components:

- **Selected Client:** This field contains the name of the SMART Reaction Client for which the information in this window applies. When using SMART Reaction Client, the only selection available is the client from which the program is being used. When using SMART Reaction Manager, you can use the drop down list to select any client name assigned to the manager. By selecting a client name from the drop-down list, the network administrator can view the status of mirror and backup operations, modify the configuration for that client, or start and control a backup, restore, or mirror operation.

- **Refresh Client List:** This button is present in SMART Reaction Manager only. If new clients are added to the manager, use this button to refresh the list so the new clients are included.
- **Control and Status Notebook:** The Control and Status notebook contains all of the configuration settings related to the SMART Reaction Backup, Restore, and Mirror programs. The following is a short description of each of the pages in the notebook. A detailed description of each page is provided later in this chapter.
  - Backup Page: This page displays the status of the last backup operation, settings for the next backup, and buttons to manually start and control backup operations.
  - Mirror Page: This page displays the status of the last mirror operation, settings for the next mirror operation, and buttons to manually start and control mirror operations.
  - Restore Backup Page: This page displays the status of the last backup operation, settings for the next restore operation, and buttons to manually start and control the restoration of backed-up files.
  - Restore Mirrors Page: This page displays the status of the last mirror operation, settings for the next restore operation, and buttons to manually start and control the restoration of mirrored files.
  - Manager Page: This page allows a network administrator to manage SMART Reaction Manager from a remote workstation. Access to SMART Reaction Manager is controlled by a password.
  - Locks Page: This page is present in SMART Reaction Manager only. It allows a network administrator to view a list of locked files that could not be backed up or mirrored.
- **Client Settings...:** This button allows either the network administrator or the end user to access the Client Settings notebook to view or modify configuration settings for the selected client workstation.
- **Group Settings...:** This button is present in SMART Reaction Manager only. It allows the network administrator to access the Group Settings notebook, which is used to define backup and mirror configurations for selected groups of clients that have common needs.
- **Default Settings...:** This button is present in SMART Reaction Manager only. It allows the network administrator to access the Default Settings notebook, which is used to define a set of default backup and mirror configurations for all clients. The default settings are also a starting point for creating individual and group settings.
- **Help:** This button accesses the Help system for the Control and Status Window.
- **Status bar:** This component is at the bottom edge of the window. It typically shows status information about the SMART Reaction program. However, depending on how the **Show Client Prompts** field of the General page is set, messages can also appear here instead of in a pop-up dialog box. See “General Page” on page 45 for details.

Backup Page - Control and Status Notebook

Use this page to view the status of the last backup operation, view or change settings for the next backup operation, and manually start and control backup operations.



The Backup page contains the following information:

- **Selected Backup Set:** This field contains the name assigned to the configuration defined on this page. You can access the following backup sets from the drop-down list:
  - Path Backup: This backup set contains the folders or logical drives defined for a routine backup operation (manual or scheduled). It can be a partial backup or a full backup, and span multiple drives.
  - Hard Drive 0: This backup set contains all folders in all partitions of physical hard disk drive 0. This backup set is used if the backup operation is initiated by a PFA alert associated with this physical drive.
  - Hard Drive 1: This backup set contains all folders in all partitions of physical hard disk drive 1. This selection is available only if a second physical hard disk drive is installed. This backup set is used if the backup operation is initiated by a PFA alert associated with this physical drive.
- **Status for this Backup Set:** This field provides the following information about the selected backup set:
  - Whether or not this client has been backed up
  - The date of the last backup operation
  - The drives involved in the last backup operation
  - The location (path) where the last backup files were stored
- **Settings for Backup Set:** This field contains the following information about the selected backup set:
  - Location (path) where files will be stored during the next backup operation: This is the computer name and path. For example, `\\computer_name\path`.

– Items in the backup set: Typically, for a path backup operation, the information in this field is for a complete drive; for example, `c:\ /s`. However, you can backup selected folders. For example, `c:\data` for a specific folder or `c:\data /s` for a specific folder and all of its subfolders. For a PFA-generated backup operation (backup set Hard Drive 0 or Hard Drive 1), the list consists of all logical drives contained on that physical drive.

  Note: Partial backup operations can cause the registry to get out of synchronization with files in a folder or path names defined in an application program .INI file. Therefore, performing partial backup operations might not be in your best interest.

– **Delete Selected Backup Set:** Click on this button to delete the backup files from the server or peer workstation specified in the **Status for this Backup Set** field. This button is active only if a backup operation has already been performed using the selected backup set. This function is useful if you need to free up disk space, but is not required before a backup operation. SMART Reaction automatically erases existing backup files before performing a backup operation.

– **Start Backup:** Click on this button to manually start a backup operation using the parameters specified on this page.

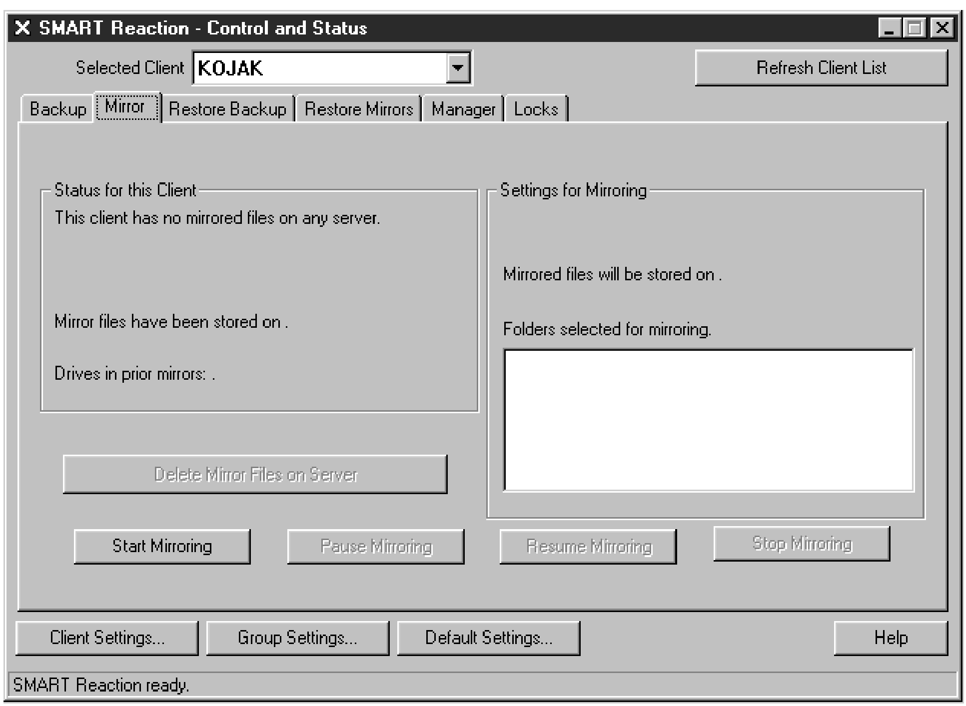
– **Pause Backup:** Click on this button to pause a backup operation that is in progress.

– **Resume Backup:** Click on this button to resume a backup operation that has been paused.

– **Cancel Backup:** Click on this button to cancel a backup operation that is in progress.

Mirror Page - Control and Status Notebook

Use this page to view the status of the last mirror operation, view or change settings for the next mirror operation, and manually start and control mirror operations.



The Mirror Page contains the following information:

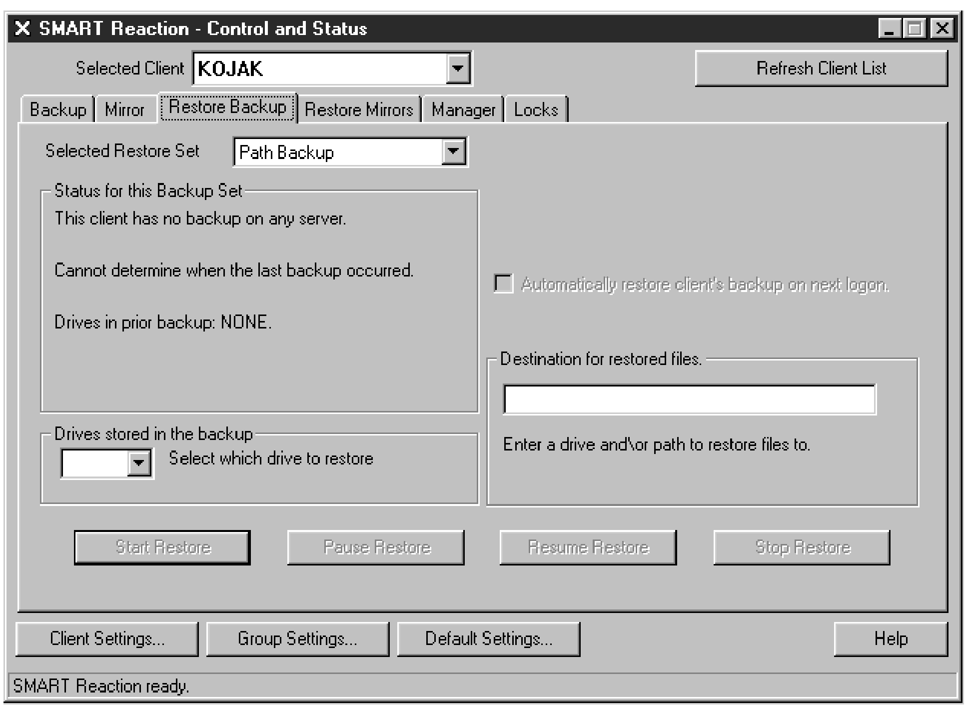
- **Status for this Client:** This box provides the following information:
  – Whether or not mirroring is active
  – The location (path) where the mirror files are stored

– The drives involved in the prior mirror operation

- **Settings for Mirroring:** This box contains the following information:
  – Date for next scheduled mirror operation.
  – Location (path) where files will be stored for the next mirror operation. This is the computer name and path. For example, `\\`*`computer_name`*`\`*`path`*.
  – List of folders selected for the next mirror operation. Up to 64 folders can be specified in this list. Each folder must be specified independently. For example, `c:\my data\critical files`. The /s attribute (include all subfolders) is not supported.
- **Delete Mirror Files on Server:** Click on this button to delete the mirror files from the server or peer workstation specified in the **Status for this Client** field. This button is active only if a mirror operation has already been performed. This function is useful if you need to free up disk space, but is not required before a mirror operation. SMART Reaction automatically erases existing mirror files before performing a mirror operation.
- **Start Mirroring:** Click on this button to manually start a mirror operation using the parameters specified on this page. Even if you specified that the mirror files are to be monitored and updated continuously (on the Mirroring page of the Defaults, Client Settings, or Group Settings notebook), you must still click on this button one time to initiate the mirror process.
- **Pause Mirroring:** Click on this button to pause a mirror operation that is in progress.
- **Resume Mirroring:** Click on this button to resume a mirror operation that has been paused.
- **Cancel Mirroring:** Click on this button to cancel a mirror operation that is in progress.

Restore Backup Page - Control and Status Notebook

Use this page to view the status of the last backup operation, view or change settings for the next restore operation, and manually start and control the restoration of backed-up files.

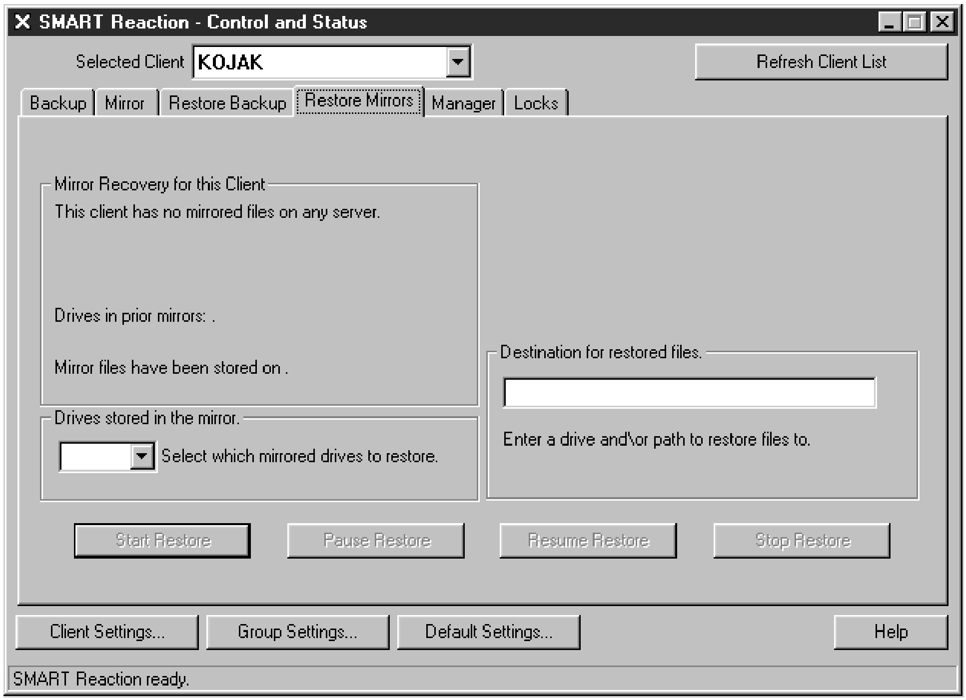


The Restore Backup page contains the following information:

- **Selected Restore Set:** This field contains the name assigned to the configuration shown on this page. You can access multiple restore sets (Path Backup, Hard Drive 0, and Hard Drive 1) from a drop-down list.
- **Status for this Backup Set:** This field provides the following information:
  - Whether or not this client has backed-up files
  - The date of the last backup operation
  - The drives involved in the last backup operation
  - The location (path) where the last backup files were stored
- **Drives stored in the backup:** This field contains the drive letter of the folders to be restored. If the selected restore set contains folders from more than one drive, you can use the drop-down list to select the appropriate drive letter. Restore operations are performed one drive at a time.
- **Automatically restore client's backup on next logon:** A check in this box indicates that a restore operation (using the selected restore set) will automatically take place the next time the client starts and connects to the network. This check box is active only if a PFA-initiated backup set (Hard Drive 0 or Hard Drive 1) is selected.
- **Destination for restored files:** This field contains the drive letter and path where the backed-up files will be restored. Although you can restore files to a different drive and folder than from which it originated, in most cases you want to make sure that the drive defined in this field matches the drive defined in the **Drives stored in the backup** field. This field is active only if the Path Backup set is selected.
- **Start Restore:** Click on this button to start a restore operation using the parameters specified on this page.
- **Pause Restore:** Click on this button to pause a restore operation that is in progress.
- **Resume Restore:** Click on this button to resume a restore operation that has been paused.
- **Cancel Restore:** Click on this button to cancel a restore operation that is in progress.

Restore Mirrors Page - Control and Status Notebook

Use this page to view the status of the last mirror operation, view or change settings for the next restore operation, and manually start and control the restoration of mirrored files.

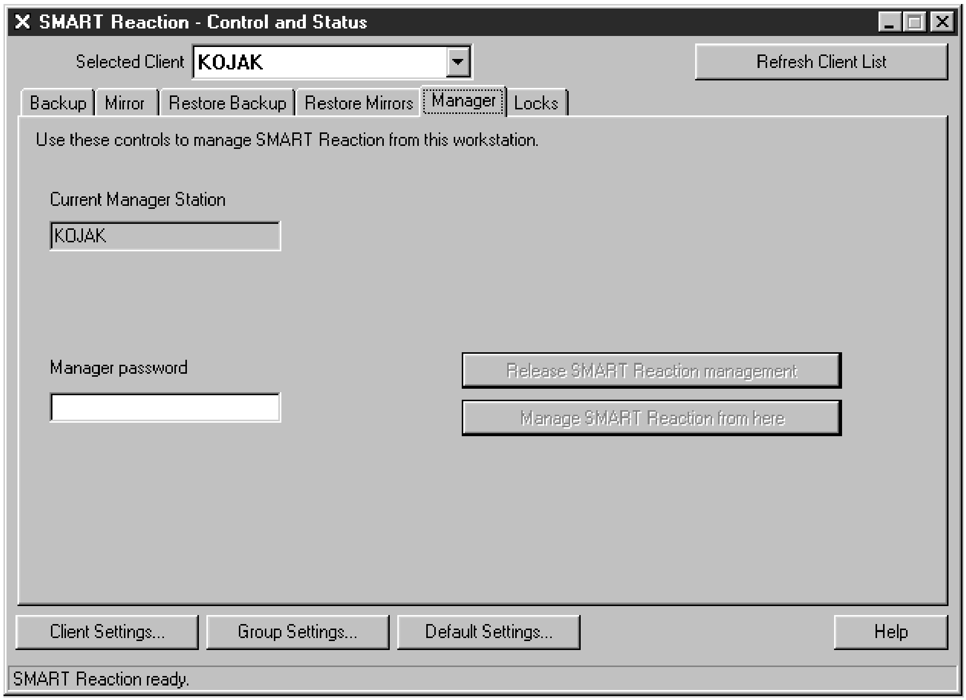


The Restore Mirrors page contains the following information:

- **Mirror Recovery for this Client:** This field contains the following information:
  - Whether or not mirroring is active and the mirrored files are current
  - The drives involved in the last mirror operation
  - The location (path) where mirror files are currently stored.
- **Drives stored in the mirror:** This field contains the letter of the drive that you want to restore. If a mirroring operation involved folders from more than one drive, you can select the appropriate drive from the drop-down list.
- **Destination for restored files:** This field contains the drive letter and path where the mirrored files will be restored.
- **Start Restore:** Click on this button to manually start a restore operation using the parameters specified on this page.
- **Pause Restore:** Click on this button to pause a restore operation that is in progress.
- **Resume Restore:** Click on this button to resume a restore operation that has been paused.
- **Cancel Restore:** Click on this button to cancel a restore operation that is in progress.

Manager Page - Control and Status Notebook

Use this page to access SMART Reaction Manager from a client workstation. This page is intended to be used by the network administrator.

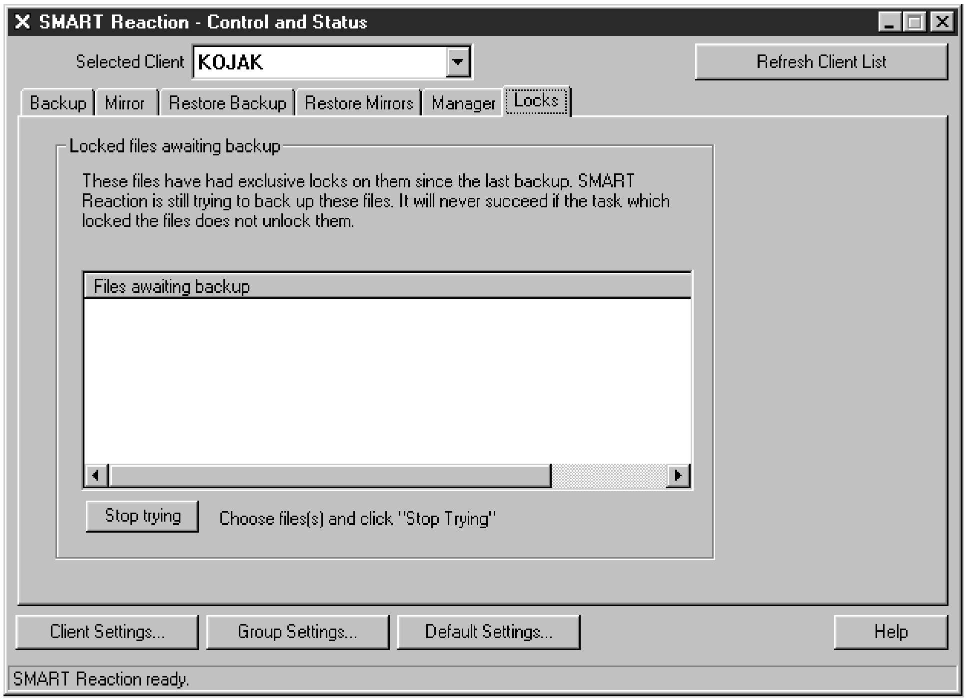


The Manager page contains the following information:

- **Current Manager Station:** This field contains the name of the SMART Reaction Manager to which this client workstation is currently assigned.
- **Manager password:** In this field, type the password for the SMART Reaction Manager you want to access. For security reasons, the password is not displayed as you type it.
- **Release SMART Reaction Management:** After establishing control of SMART Reaction manager and completing your tasks, click on this button to release control of SMART Reaction Manager from this workstation.
- **Manage SMART Reaction from Here:** After filling in the **Manager password** field, click on this button gain control of SMART Reaction Manager from this workstation.

Locks Page - Control and Status Notebook

Use this page to view a list of files that the backup operation is attempting back up, but cannot because the files are locked.



The Locks page contains the following information:

- **Files awaiting backup:** This field shows a list of files that SMART Reaction is attempting to backup, but cannot because the files are open and locked (flagged for exclusive use by another program). These files cannot be backed up until the program using these files unlocks them or is closed. Some files that are locked by the operating system cannot be backed up by SMART Reaction.
- **Stop trying:** Click this button to terminate the backup operation of a selected file or group of files. You must first click on the file, then click on the button.

Default Settings Notebook

The default settings notebook is accessible through SMART Reaction Manager only by clicking on the Defaults Settings... button on the Control and Status window. The settings contained in this notebook are the default settings applied to all clients being serviced by this SMART Reaction Manager. You can override default settings by modifying client settings or assigning group settings. See “Configuring Groups or Individual Client Workstations” on page 58 for details.

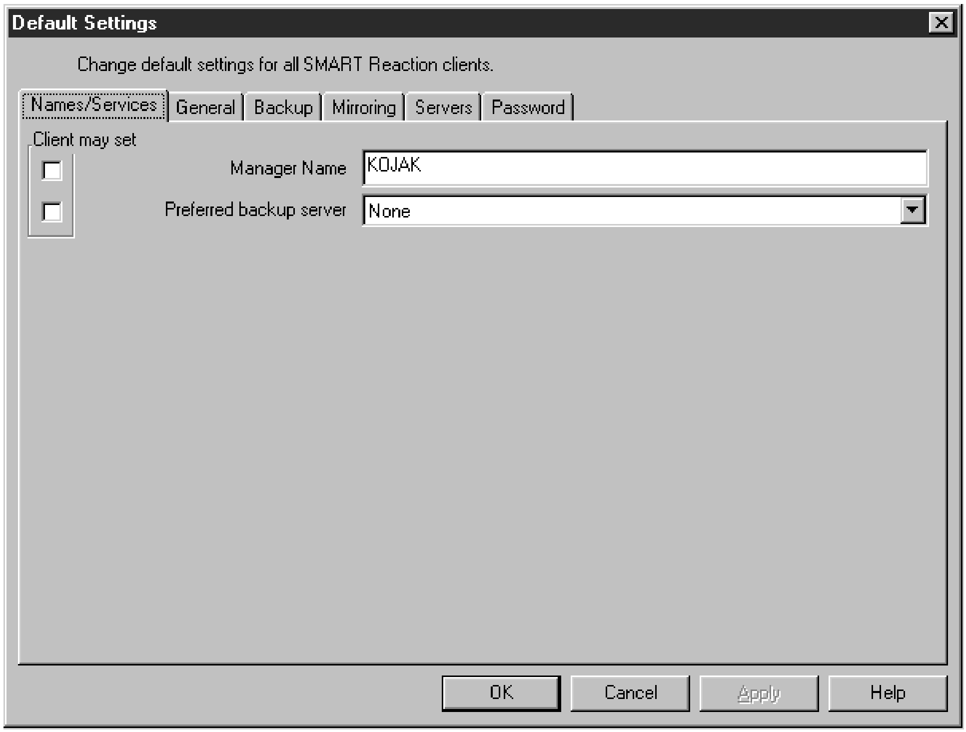
This section describes the purpose of each field on each page of the notebook. Not every field requires an entry. For step-by-step instructions on setting up the default settings, see “Creating Backup, Restore, and Mirror Default Settings” on page 62.

Regardless of which page is selected, the same four buttons are visible at the bottom of the notebook:

- **OK:** Clicking on **OK** saves any changes that were made to any of the pages and closes the notebook.
- **Cancel:** Clicking **Cancel** deletes any unsaved changes and closes the notebook.

- **Apply:** Clicking on **Apply** saves any changes that were made to any of the pages and keeps the notebook open.
- **Help:** Clicking on **Help** accesses the Help system.

Names/Services Page

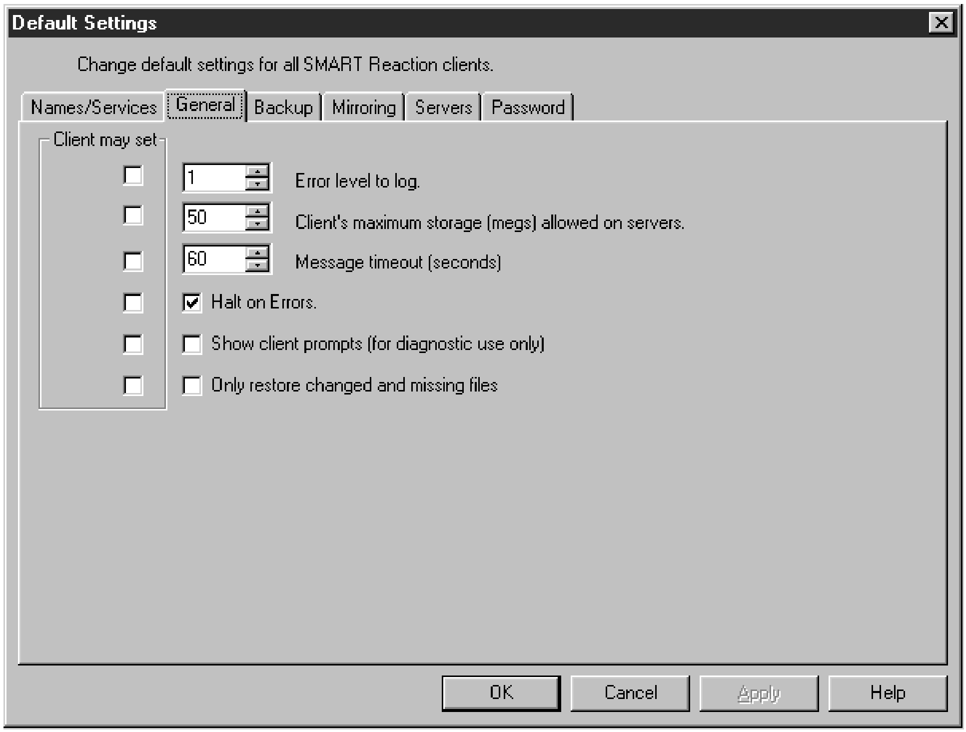


This page has the following components:

- **Manager Name:** This field contains the name of the SMART Reaction Manager that will service all or a defined group of clients. The name shown in this field matches the computer name shown on the Identification tab of the Network notebook (accessible through the control panel) of the computer running the SMART Reaction Manager program.
- **Preferred backup server:** This field defines the server or peer workstation that the clients (or group of clients) will use as their first choice backup server. You make selections from a drop-down list.
- **Client may set:** Use these check boxes to determine which fields an end user can override using SMART Reaction Client. A check indicates that the end user can override the setting; an empty box indicates that this is a locked field when viewed through SMART Reaction Client.

General Page

Use this page to set preferences that apply to SMART Reaction backup and mirroring operations.



This page has the following components:

- **Error level to log:** This field defines the types of errors that are stored in the log file (SRCLIENT.LOG). Levels are defined as follows:
  - 1 indicates log errors. Errors are events that cause problems during a backup, restore or mirror operation, such as being unable to access a locked file.
  - 2 indicates log information and errors. Information includes items such as synchronizing configurations with clients as they establish contact with SMART Reaction Manager.
  - 3 through 5 indicates log debug information. This level of logging is for support use only.

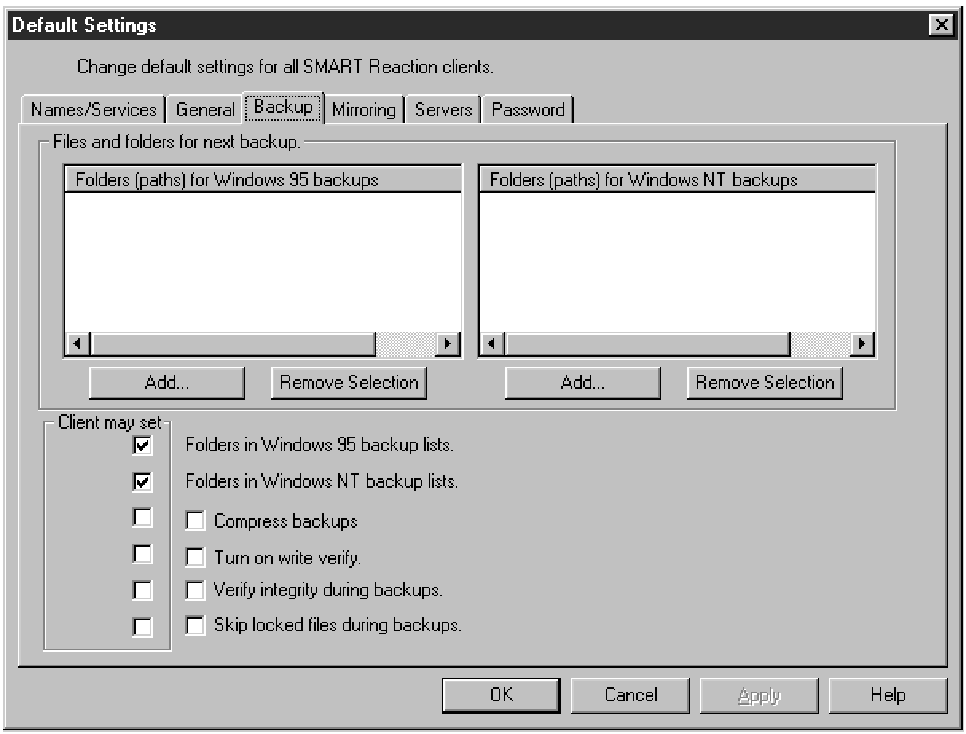
  The error log is created on the computer being backed up or mirrored. You can view an error log by using the Windows NT Event Viewer or by using a text editor, such as Notepad.
- **Client's maximum storage allowed on servers:** This field defines the maximum amount of storage that the client can use for backup and mirror operations. The value shown in the field is in units of 1,000,000 bytes. If the backup or mirror operation requires more space than the amount allocated, the operation will not complete, and an "Insufficient Storage" message will be displayed at the client workstation. The error also will be recorded in the error log.
- **Message timeout (seconds):** This field defines the number of seconds that an error message will display on the client workstation screen.
- **Halt on Errors:** This check box determines whether or not SMART Reaction will halt a backup or mirror process if an error occurs.
- **Show Client Prompts (for diagnostic use only):** This check box determines how messages are displayed at the client workstation. A checked box indicates that messages are displayed as a pop-up

dialog boxes. An empty check box indicates that messages appear on the status bar on the bottom of the Control and Status Window. Pop-up dialog boxes are intended for troubleshooting purposes only.

- **Only restore changed and missing files:** This check box determines how a restore operation is performed. A checked box indicates that the restore operation will restore only those files that have been changed or deleted at the client workstation. An unchecked box indicates that all files will be restored unconditionally, overwriting existing files that have the same path and file name.
- **Client may set:** Use these check boxes to determine which fields an end user can override using SMART Reaction Client. A check indicates that the end user can override the setting; an empty box indicates that this is a locked field when viewed through SMART Reaction Client.

Backup Page

Use this page to specify the client-workstation drives or folders to be backed up and define the backup-operation attributes.



This page has the following components:

- **Files and folders for next backup:** This area of the page is divided into two boxes:
  - Folders (paths) for Windows 95 backups
  - Folders (paths) for Windows NT backups

  You use these boxes to define the specific drives or folders to be included in a backup operation. Because the folder structure might be different between a Windows 95 client and a Windows NT client, the two boxes are provided so you can assign a common set of defaults to clients using either of the two operating systems.

  Examples:

  - Use `c:\ /s` for a complete drive
  - Use `c:\`*`folder_name`* for a specific folder
  - Use `c:\`*`folder_name`* `/s` for a specific folder and all of its subfolders.

Note: Partial backup operations can cause the registry to get out of synchronization with files in a folder or with path names defined in an application program .INI file. Therefore, performing partial backup operations might not be in your best interest.

To add a folder or drive to the list:

1. Click on **Add**.
2. Type the drive, path, and folder name (as required).
3. Press **Enter**.

To delete a folder or drive from the list:

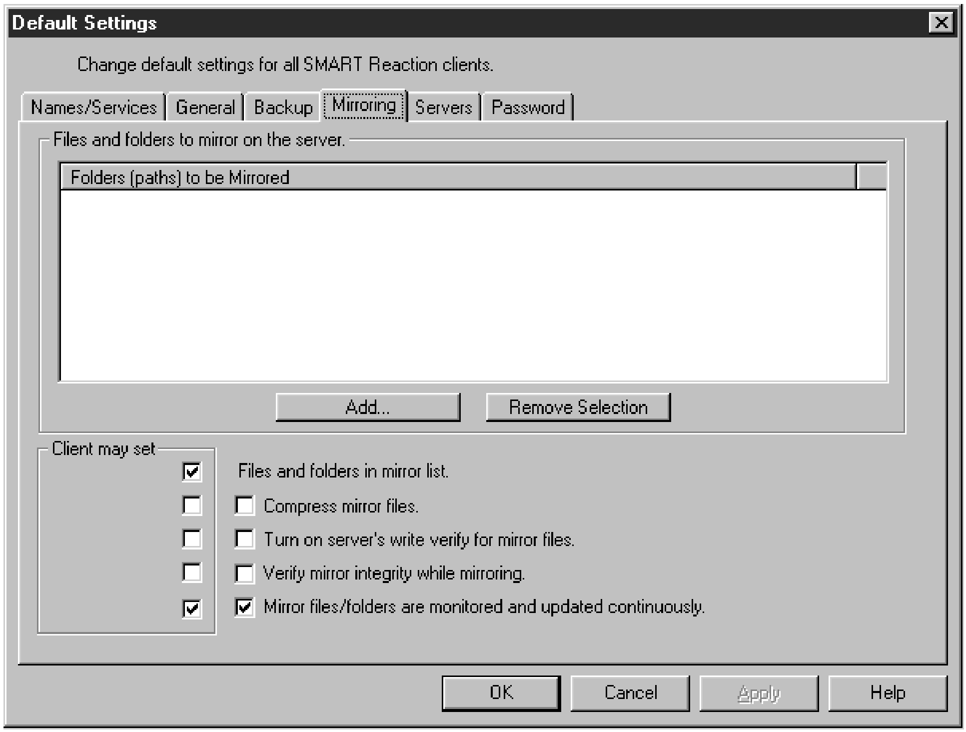
1. Click on the entry to highlight it.
2. Click on **Remove Selection**.

- **Folders in Windows 95 backup lists:** You can allow or prevent end users from modifying this list by checking or unchecking the **Client may set** box.
- **Folders in Windows NT backup lists:** You can allow or prevent end users from modifying this list by checking or unchecking the **Client may set** check box.
- **Compress backups:** Use this check box to indicate whether or not compression (approximately 2:1) will be used on backup operations. A check indicates compression will be used.
- **Turn on write verify:** Use this check box to indicate whether or not the operating system write-verify function will be used to ensure data integrity. A check indicates the operating system write-verify function will be used.
- **Verify integrity during backups:** Use this check box to indicate whether or not SMART Reaction will perform a comparison during the backup operation. This feature compares the file written to the backup disk with the original source file on the computer being backed up. This verification process is performed by the client and adds an extra read/write cycle, which could slow down the backup operation. A check indicates that the client will use SMART Reaction to perform the comparison.
- **Skip locked files during backups:** Use this check box to indicate whether or not locked files (files that are open and locked by the application program using them) should be skipped during the backup operation. A check indicates that SMART reaction will skip these files. An empty check box indicates that SMART Reaction will continue to retry the back up operation on locked files until one of the following occurs:
  - The **Stop trying** button is used in the Locks page of the Control and Status window.
  - The backup operation is canceled (the **Cancel** button is used in the Backup page of the Control and Status window).
- **Client may set:** Use these check boxes to determine which fields an end user can override using SMART Reaction Client. A check indicates that the end user can override the setting; an empty box indicates that this is a locked field when viewed through SMART Reaction Client.

Mirroring Page

Use this page to define the client-workstation folders to be mirrored and the mirror-operation attributes.

IMPORTANT: SMART Reaction can mirror up to 64 folders on each client. If more than 64 folders are contained in the list of folders, the mirroring operation stops after the 64th folder. Subsequent folders are not included in the mirror process.



This page has the following components:

- **Folders (paths) to be mirrored:** Use this field to define the specific folders to be included in a mirror operation. Each folder and subfolder to be mirrored must be listed individually. The /s parameter (for including subfolders) is not recognized for mirroring operations. All files must be defined as follows:

  d:\path_to_folder\folder_name

  To add a folder to the list:

  1. Click on **Add**.
  2. Type the drive, path, and folder name (as required).
  3. Press **Enter**.

  To delete a folder from the list:

  1. Click on the entry to highlight it.
  2. Click on **Remove Selection**.

- **Files and folders in mirror lists:** You can allow or prevent end users from modifying the list in the **Folders (paths) to be mirrored** field by checking or unchecking the **Client may set** box.

- **Compress mirror files:** Use this check box to indicate whether or not compression (approximately 2:1) will be used on mirror files. A check indicates compression will be used.

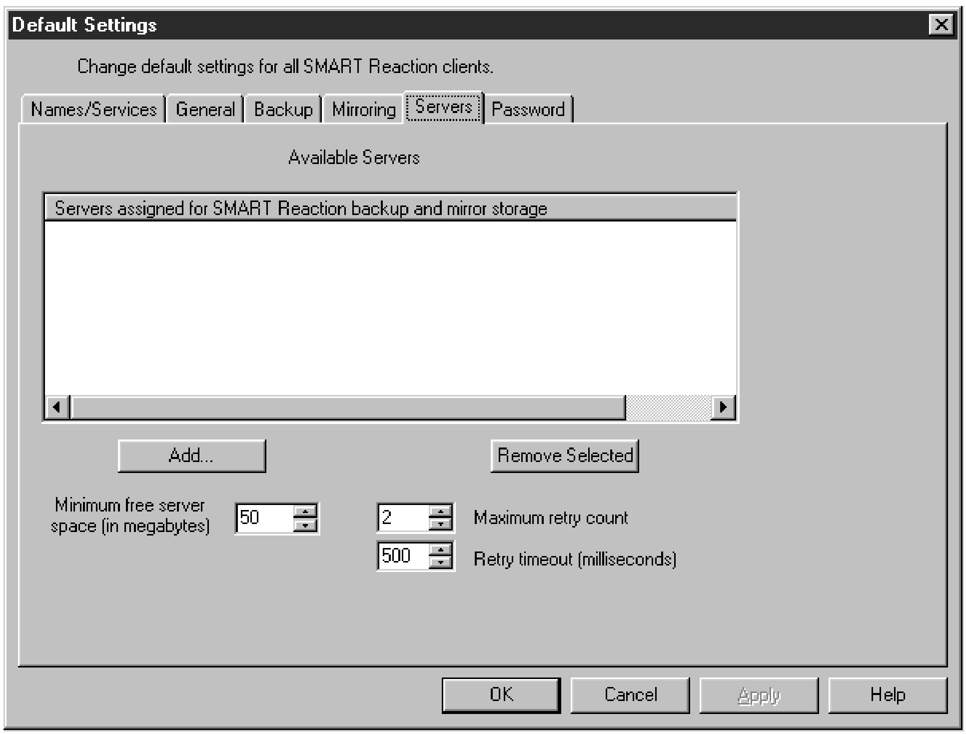
- **Turn on server's write verify for mirror files:** Use this check box to indicate whether or not the operating system on the computer (server or peer workstation) used to store the mirrored data will use its write-verify function to ensure data integrity. A check indicates the operating system write-verify function will be used.

- **Verify mirror integrity while mirroring:** Use this check box to indicate whether or not SMART Reaction will perform a data comparison during the mirror operation. This feature compares the data written to the backup disk with the original source data on the computer being mirrored. This verification process is performed by the client and adds an extra read/write cycle, which could slow down the mirror operation. A check indicates that the client will use SMART Reaction to perform the comparison.

- **Mirror files/folders are monitored and updated continuously:** Use this check box to indicate whether or not the mirror operation is continuous. A checked box indicates the the mirrored files will be updated automatically when a change in the source file is detected. An empty box indicates that the source files will be mirrored only if the end user initiates the action or if mirroring is controlled by a scheduler.
- **Client may set:** Use these check boxes to determine which fields an end user can override using SMART Reaction Client. A check indicates that the end user can override the setting; an empty box indicates that this is a locked field when viewed through SMART Reaction Client.

Servers Page

Use this page to define the default servers or peer workstations that will be used to store data created by backup and mirror operations.



This page has the following components:

- **Available Servers:** This field contains the list of computers (servers and peer workstations) that will be used to store data created during a backup or mirror operation. The order in which these computers are displayed is the order in which the client workstation looks for available hard disk space. Each computer is listed using standard UNC format. For example:

  \\computer_name\path_to_target_folder\foldername

- **Add...**: Use this button to add another computer (server or peer workstation) to the beginning of the list of computers in the Available Servers box.
- **Remove selected**: Use this button to remove a computer (server or peer workstation) from the list in the Available Servers box. You must click on the computer first to highlight it, then click on the button.
- **Minimum free server space:** This field defines the minimum amount of free hard disk space that will remain on the server or peer workstation *after* a backup operation. The amount shown is in units of 1,000,000 bytes. When SMART Reaction attempts a backup operation, it first calculates the amount

of hard disk space required (backup data + free space). If the amount available is less than the amount required, SMART Reaction moves to the next server or peer workstation in the list.

This setting prevents SMART Reaction Client workstations from using all available hard disk space, which could cause another application to fail if it uses the same shared disk.

- **Maximum retry count:** This field defines the number of retry attempts that will take place if an error occurs during a backup operation (for example, the target server or peer workstation is down). SMART Reaction Client will continue to retry until one of the following occurs:

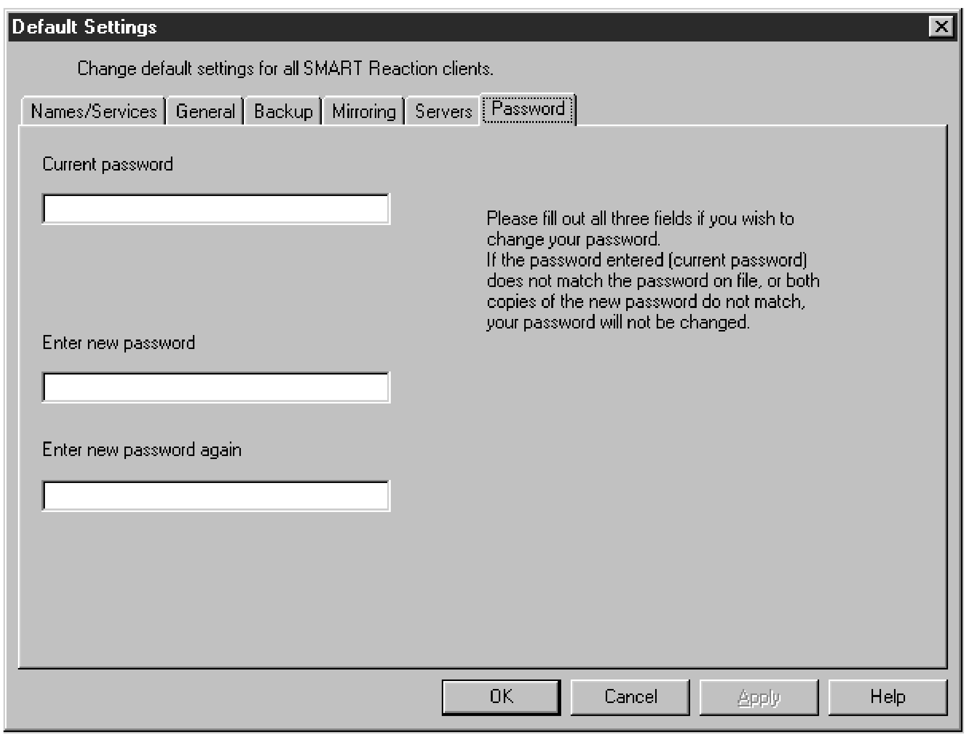
  – The error is cleared
  – A reset message is received from SMART Reaction Manager
  – The maximum retry count is reached

  If SMART Reaction Client is unable to complete the backup operation, it will enter the *Backup Failed* state.

- **Retry time-out (milliseconds):** This field defines the number of milliseconds that will elapse after an error before SMART Reaction attempts to retry the operation.

Password Page

Use this page to change the password for SMART Reaction Manager. The password is originally set during the SMART Reaction Manager installation procedure.



Note: For security reasons, none of the characters in the fields are readable as you type them. Passwords are not case sensitive.

This page has the following fields:

- **Current Password:** Type your current password in this field. If you do not know your current password, you cannot change your password.

- **Enter new password:** Type in a new password here. Your new passwords can be up to 32 characters in length and consist of any combination of alphanumeric characters (A-Z, a-z, or 0-9). Spaces and symbols are not permitted.
- **Enter new password again:** Type in the new password again for verification. If the entry in this field does not match the entry in the **Enter new password** field, the password will not be changed.

Group Settings Notebook

The Group Settings notebook is accessible through SMART Reaction Manager only by clicking on the Group Settings... button on the Control and Status window. The settings contained in this notebook apply to a specific group of workstations that have a common set of needs.

This notebook is very similar to the Default Settings notebook. The major differences are:

- A **Group** field at the top of the window.
- A Refresh Group List button
- A Clients tab (Clients page)
- A Groups tab (Groups page)
- The absence of the Servers tab and the Password tab.

Because of the similarities between the Group Settings notebook and the Default Settings notebook, this section will discuss only the **Group** field, Refresh Client List button, Clients page, and the Groups page. For information about the other pages, fields, and buttons, refer to the information in “Default Settings Notebook” on page 43.

For step-by-step instructions on setting up the group settings, see “Creating Backup, Restore, and Mirror Group Settings” on page 65.

Group Field

The **Group** field contains the name of a specific group of clients that will share a common set of backup, restore, or mirror settings. These settings override the default settings for the specified group. However, subsequent changes to the default settings can override changes in the group settings. See “Configuring Groups or Individual Client Workstations” on page 58 for details.

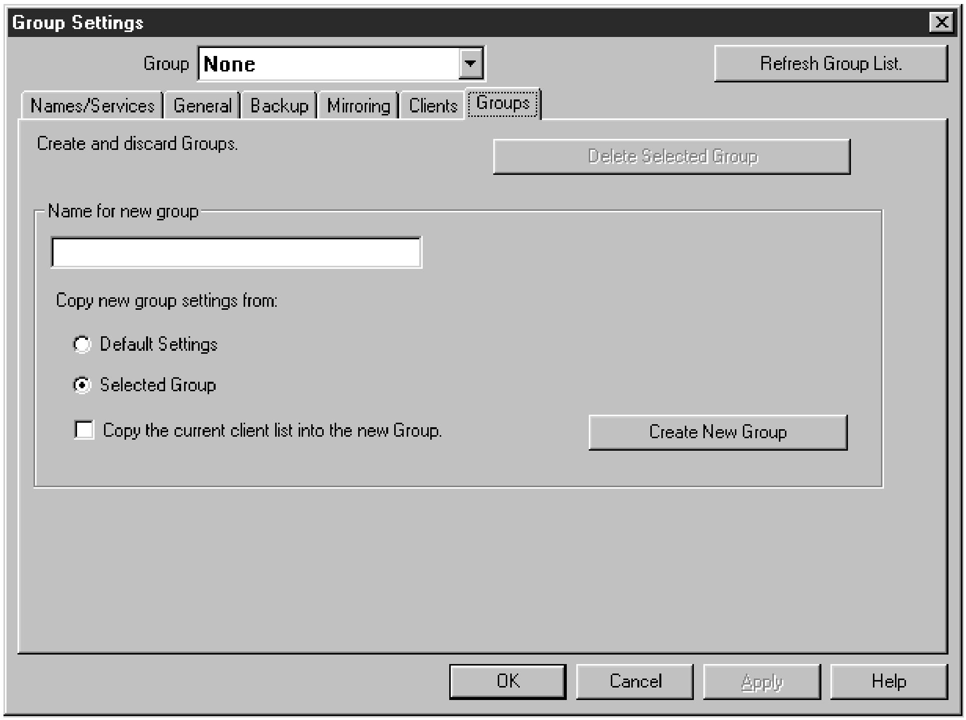
By selecting a group name from the drop-down list, you can view or modify the settings for that group of clients. The group names in the drop-down list are created through the Groups page.

Refresh Group List Button

If new groups are added, use this button to ensure the new groups are contained in the list.

Groups Page

You use the Groups page to define or update groups of end users who share a common set of backup, mirror, or restore settings.

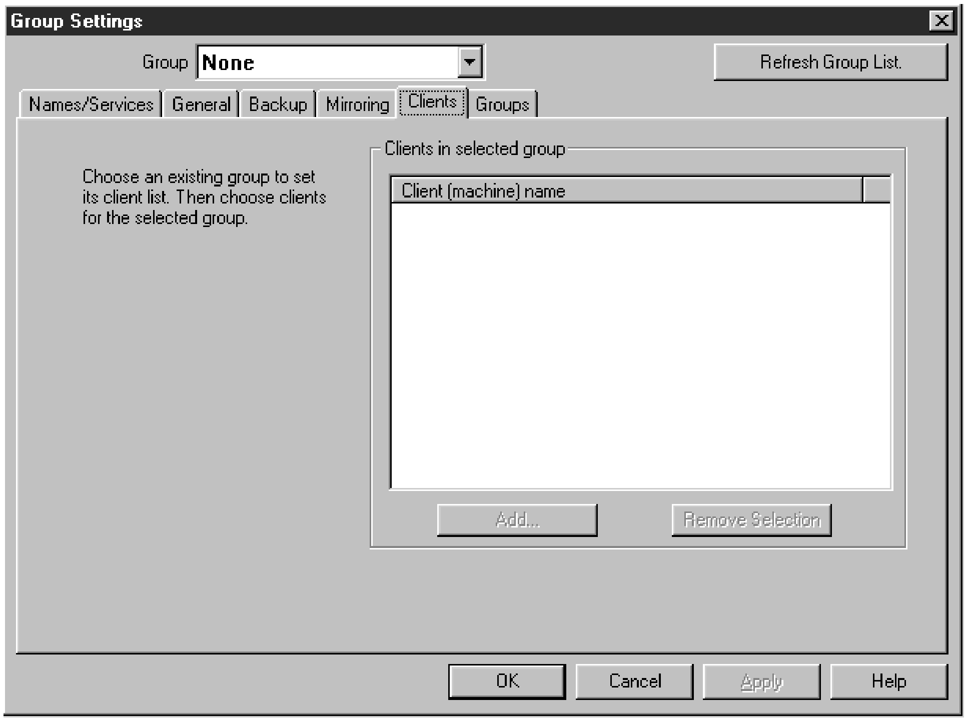


This page has the following components:

- **Name for new group:** This is the name you want to assign to the new group. The name can be up to 15 characters in length and be any combination of alphanumeric characters (A-Z, a-z, and 0-9). Symbols and spaces are not permitted.
- **Copy new settings from:** Use this area to define the source from which you will create the new group settings. Basically, you are selecting a source to use as a template or starting point. You can select from either of the following:
  - Selected Group: Use this radio button if the new group settings will be closer to an existing group setting than the default settings. The settings will be copied from the group name listed in the **Group** field at the top of the window.
  - Default settings: Use this radio button if you are creating your first set of group settings or if the new settings will be closer to the default settings than another group setting.
- **Copy the current client list into the new Group:** Check this check box if you are copying group settings and you want to include the client list from those group settings. The list will be sourced from the group name listed in the **Group** field at the top of the page. After you create the new group, you can edit the list in the Clients page of this notebook.
- **Create New Group:** Click on this button after you have typed in a name, selected your source, and decided whether or not to include the client list.
- **Delete Selected Group:** Click on this button to delete the settings (including the group name) for the group shown in the **Group** field at the top of the window.

Clients Page

Use the Clients page to add client workstations to a group or delete them from a group.



The clients listed in the **Clients in selected group** field depend on the group name selected in **Group** field at the top of the window.

- To add a client workstation to the list, click on **Add**, type the name in the field, then press **Enter**.
- To remove a client workstation to the list, click on the name to highlight it, then click on **Remove selection**.

Client Settings Notebook

The Client Settings notebook is accessible through either SMART Reaction Manager or SMART Reaction Client by clicking on the Client Settings... button on the Control and Status window. The settings contained in this notebook apply to a specific client workstation.

This notebook is very similar to the Default Settings notebook. The major differences are:

- A **Selected Client** field at the top of the window.
- A Refresh Client List button
- A Clients tab (Clients page)
- The absence of the Servers tab and the Security tab.

Because of the similarities between the Client Settings notebook and the Default Settings notebook, this section will discuss only the **Selected Clients** field, Refresh Client List button, and the Clients page. For information about the other pages, fields, and buttons, refer to the information in "Default Settings Notebook" on page 43.

For step-by-step instructions on setting up the group settings, see "Creating Backup, Restore, and Mirror Client Settings" on page 66.

Selected Client Field

The **Selected Client** field contains the name of a specific client that has unique backup, restore, or mirror settings. These settings override the default settings for that moment in time. However, subsequent changes to the default settings can override changes made in the client settings. See “Configuring Groups or Individual Client Workstations” on page 58 for details.

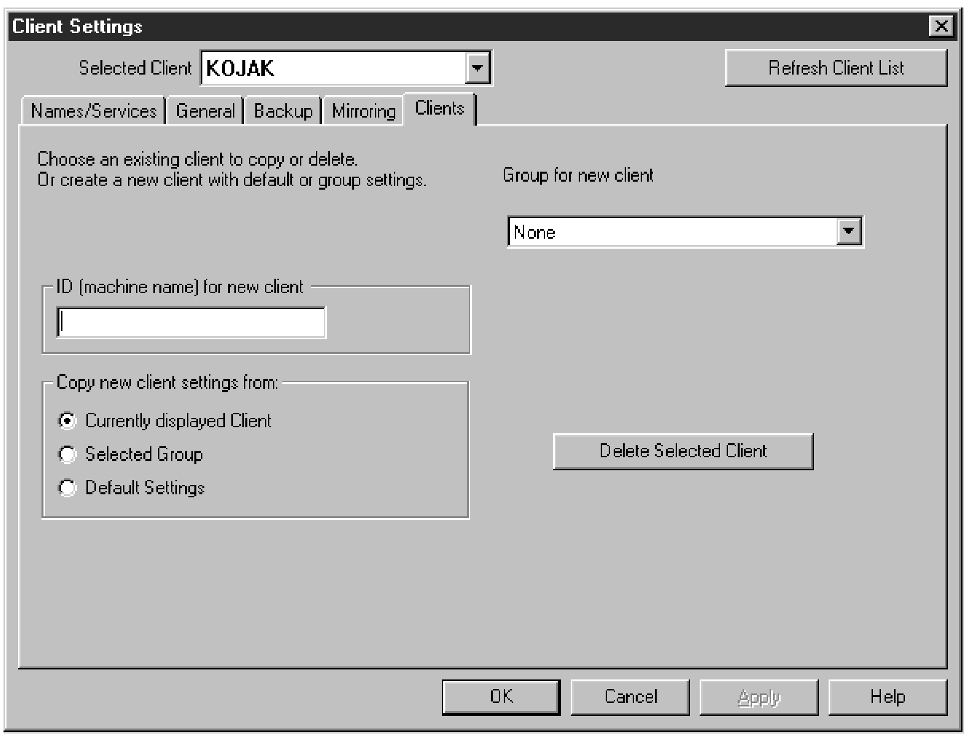
By selecting a client name from the drop-down list, you can view or modify the settings for that client. The client names in the drop-down list are created through the Clients page.

Refresh Client List Button

If new clients are added, use this button to ensure the new clients are contained in the list.

Clients Page

Use the Clients page to create or update settings for a specific client workstation that a unique set of backup, mirror, or restore requirements. You can also use this page to delete unique settings for a client that no longer needs them.



This page has the following components:

- **ID (machine name) for new client:** This is the computer name of the client as defined in the Identification page of the Network notebook (accessible through the Control Panel).
- **Copy new client settings from:** Use this area to define the source from which you will create the new client settings. Basically, you are selecting a source to use as a template or starting point. You can select from any of the following:
  - Currently displayed Client: Use this radio button if the new client settings will be closer to an existing clients setting than the default settings or an existing group's settings.

- Selected Group: Use this radio button if the new client settings will be closer to an existing group's settings than the default settings or another client's settings.
- Default settings: Use this radio button if you are creating your first set of group settings or if the new settings will be close to the default settings.

- **Delete Selected Client:** Click on this button to delete the settings for the client shown in the **Selected Client** field.

Chapter 4. Understanding SMART Reaction Manager Configuration

There are four key steps to using SMART Reaction Manager to remotely configure client workstations for backup, restore, and mirror operations:

1. Set up shared folders or drives on servers or peer workstations for storing data created by the backup or mirror process.
2. Configure default configuration settings through SMART Reaction Manager.
3. Pass the default configuration settings to the clients.
4. Configure groups or individual clients (optional)

This section provides an overview of these key steps. For detailed step-by-step procedures, see:

- "Enabling Folder Sharing on Windows NT" on page 9
- "Enabling Folder Sharing on Windows 95" on page 10
- "Creating Backup, Restore, and Mirror Default Settings" on page 62
- "Creating Backup, Restore, and Mirror Group Settings" on page 65
- "Creating Backup, Restore, and Mirror Client Settings" on page 66

Shared Folders and Drives

The first step is to designate disk storage on servers, peer workstations, or other network attached storage devices for use by individual client workstations. You must grant read and write access to the shared folders or drives using standard server network administration procedures. There is no need to designate separate folders for each client workstation; SMART Reaction does this automatically by creating a path that includes the name assigned to the individual SMART Reaction Client program. SMART Reaction also sets up separate folders for each type of backup and mirror operation when the operation is performed. By doing so, SMART Reaction provides multiple levels of data protection.

For step-by-step instructions on setting up shared folders and drives, see the following:

- "Enabling Folder Sharing on Windows NT" on page 9
- "Enabling Folder Sharing on Windows 95" on page 10

SMART Reaction Manager Default Settings

Default settings are set through SMART Reaction Manager and apply to all SMART Reaction Clients under its control. However, at the discretion of the network administrator, settings made through SMART Reaction Client can override some of the the default settings. The network administrator can selectively lock out fields and functions so the end user cannot override specific default settings. Within the SMART Reaction Manager interface, a **Client may set** check box is provided next to the fields that can be selectively locked or unlocked. When the check box is empty (unchecked), the setting is visible when viewed through SMART Reaction Client, but the information is grayed out and cannot be changed.

After the default settings have been set, you must add each client workstation that will be running SMART Reaction Client to the SMART Reaction Manager database.

For step-by-step instructions on creating the default settings and adding the client workstations to the database, see "Creating Backup, Restore, and Mirror Default Settings" on page 62.

Passing the Default Settings to the Client Workstations

The default settings are passed to the client workstations as part of the SMART Reaction Client installation. During installation, the end user is prompted for the *manager* name (the name of the SMART Reaction Manager that will be servicing this client workstation). When the operating system is restarted for the first time after SMART Reaction Client installation, SMART Reaction Client contacts the assigned SMART Reaction Manager, and the default settings are passed to the client workstation at that time.

Note: If customized group or individual client settings have also been defined, these are passed to the appropriate client workstations at this time also.

SMART Reaction Client runs in the minimized mode and places an icon in the system tray to show that it is active. If SMART Reaction Client cannot make contact with SMART Reaction Manager, the program closes and becomes inactive. Once SMART Reaction Client has made contact with SMART Reaction Manager, it is not required to make contact with SMART Reaction Manager on subsequent restarts to remain active.

Configuring Groups or Individual Client Workstations

In most networking environments, although the one-size-fits-all concept is desirable, it is not always practical. For this reason, you can override the default settings on a group or individual basis.

Typically individual client and group settings are variations of the default settings. Therefore, you can use the default settings as a template or starting point, and modify only those fields that need to be different. However, before implementing group settings or making changes to client settings, it is important that you understand the hierarchy of default, group, and client settings. The following list describes the general hierarchy, but ensure you also read the paragraphs following the list to understand the exceptions.

- When a client is added to a group, the group settings override the client settings.
- Changes to the default settings override all existing group and client settings.
- Changes to group settings override both existing default settings and client settings for that group.
- Changes in client settings override existing group and default settings *at that moment in time* for that client.

Backup and mirror lists are the exception to the hierarchy. If the network administrator uses SMART Reaction Manager to add a folder to the backup or mirror lists for either group or default settings, the folder is added to the client lists. But, if the administrator uses SMART Reaction Manager to delete a folder from either the default or group lists, the folder *is not* deleted from *existing* client lists; however, the deleted folder will not be included in backup or mirror lists for any new client added after the folder was deleted.

To delete a folder from the backup or mirror lists for an existing client, you can use either SMART Reaction Manager or SMART Reaction Client to modify the list in the Client Settings notebook. The deletion will impact the selected client only.

The logic behind this exception is that in many cases the end users create new folders and know which folders are important and need to be included in the lists for backed up or mirror operations.

If you need to prevent a group setting overriding a client setting, delete the client from the group and a deal with client on an individual basis. It is very common to use group settings to speed up the initial installation and configuration process, and then delete clients from the group later on.

For step-by-step procedures for creating group or client settings, see the following:

- “Creating Backup, Restore, and Mirror Group Settings” on page 65
- “Creating Backup, Restore, and Mirror Client Settings” on page 66

SMART Reaction takes care of keeping clients up-to-date automatically. As soon as you click **Apply** or **OK** on a client, default, or group configuration, SMART Reaction Manager instantaneously broadcasts the new settings to the appropriate client workstations. If an affected client workstation is powered off or disconnected from the network, it cannot receive the broadcast. This causes an error message (`Could not contact` *`client_name`*) to be displayed at the computer running SMART Reaction Manager and the error to be recorded in the error log. However, because SMART Reaction Client checks with its assigned SMART Reaction Manager for new or updated configuration information each time it is started, it will receive the updated configuration information the next time it is started, assuming it can make a network connection with SMART Reaction Manager. If the network connection between the Manager and Client is not active during the next power on, the new settings will not be applied.

Remember, SMART Reaction Client is *required* to establish and verify contact with SMART Reaction Manager only during the first operating system restart after installation. On subsequent restarts, it attempts to contact SMART Reaction Manager, but if SMART Reaction Manager is not available, SMART Reaction Client becomes fully operational using the last settings it received. No error messages are generated if SMART Reaction Manager is not accessible.

Chapter 5. Procedures

This chapter provides step-by-step instructions to accomplish many of the tasks associated with using SMART Reaction Manager and SMART Reaction Client. If you need additional information about any of the pages or fields referenced in these procedures, see Chapter 3, “The SMART Reaction Interface” on page 19.

Working with Backup, Restore, and Mirror Settings

The backup, restore, and mirror settings described in these procedures apply to the Backup, Restore and Mirror programs shipped as part of SMART Reaction. These settings do not apply to IBM ADSM or any other backup or mirror programs that you intend to use with SMART Reaction.

When working with backup, restore, and mirror settings, it is important that you understand the hierarchy of default, group, and client settings. See “Configuring Groups or Individual Client Workstations” on page 58 for details.

Creating Backup, Restore, and Mirror Default Settings

When setting up SMART Reaction Manager, the easiest method is to configure a set of default values to be used by all client workstations, then modify the default settings for groups and individual clients later on, as needed. This procedure guides you through creating a complete set of default settings.

Note: If you do not want to use default settings for most fields, you must still define the servers to be used for backup and mirroring on the Servers page and the preferred backup server on the Names/Services page.

Before you begin the process of creating default values, you will need the following:

- The computer name of each client workstation on which SMART Reaction Client will be installed.
- The computer names of the servers or peer workstations that will be used to store the data created by backup and mirror operations and the path to the folders where the data will be written. The computer name is defined in the Identification tab of Network notebook (accessible through the Control Panel of each computer).
- The preferred order in which the client workstations will look for available hard disk space on the servers or peer workstations.

To create the default settings:

1. Double-click on the SMART Reaction icon in the System Tray.

   Note: If the icon is not present, the SMART Reaction Backup/Restore/Mirror function is not currently active. See “Manually Starting the SMART Reaction Backup/Restore/Mirroring Function” on page 17 for information about restarting this function.

   The Control and Status window appears.

2. Click on **Default Settings...**.
3. Click on the **Servers** tab and fill out the default settings as follows:

   Note: In the next step, you will be entering the names of the servers or peer workstations that will be used to store the data created by backup and mirror operations. The order in which you enter the computer names will become the order in which the client workstations will look for available hard disk space for backup and mirror operations. Once the computer names have been entered, the sequence cannot be changed without reentering all of the names again. If you make a mistake typing in the name, you cannot edit the name once it has been entered; you must remove the entry (highlight the entry, then click on **Remove Selected**), then enter the computer name again.

   a. Click on **Add**. Type the computer name and path (using UNC standard format) for one of the servers or peer workstations that will be used to store the backup data, then press **Enter**.

      For example, if you are defining a Windows NT file server, the format is as follows:

*computer_name**sharename**path_to_target_folder*

If you are using a peer workstation running Windows 95 or Windows NT Workstation, the format is as follows:

*computer_name**path_to_target_folder*

Repeat this step for all servers and peer workstations that will be used to store backup or mirrored data. At least one entry is required.

b. In the **Minimum free server space** field, select the amount of free disk space that you want available on the server or peer workstation receiving the data *after* a backup operation is complete. If insufficient space is available (backup + free space), SMART Reaction will move to the next computer listed in the Available Servers list.

   Information in this field is optional

c. In the **Maximum retry count** field, enter the maximum number of retry attempts that SMART Reaction Client will attempt if an error is encountered during a backup process (for example, when a server is down). If the maximum retry count is reached, the backup or mirror process will halt.

d. In the **Retry timeout** field, select the number of milliseconds that will elapse before SMART Reaction will attempt a retry after an error.

e. Click on **Apply**.

4. Click on the **Names/Services** tab and fill in the default settings as follows:

   a. In the **Preferred backup server** field, use the drop-down list to select the server or peer workstation that will be used as the default first choice.

   b. In the **Client may set** list, check those items for which you want the end user to be able to override. (You can change or override this setting later, if needed.)

   c. Click on **Apply**.

5. Click on the **Backup** tab and define the folders to be backed up as follows:

   a. In the **Folders (paths) for Windows 95 Backups** and the **Folders (paths) for Windows 95 Backups** boxes, create lists of client drives or folders to be included in the backup operation.

      1) Click on **Add**.

      2) Type the drive and path. The path is from the client's point of view. For example, `c:\ /s` (drive C with all subfolders).

      3) Press **Enter**.

      4) Repeat these steps to define additional drives or folders.

   b. At the bottom of the Backup page, check or uncheck the attributes you want associated with the default backup operation. For additional information about these attributes, see "Backup Page" on page 46.

   c. In the **Client may set** area, check those attributes that you want end users to be able to modify through SMART Reaction Client.

   d. Click on **Apply**.

6. Click on the **Mirroring** tab and define the folders to be mirrored as follows:

   a. In the **Folders (paths) to be Mirrored** box, create a list of folders to be included in the mirror operation.

      1) Click on **Add**.

      2) Type the drive and path. The path is from the client's point of view. For example,

```
c:\My Documents
```

Note: You must specify each individual folder to be mirrored. The /s attribute to include all subfolders is not valid within the mirror function.

3) Press **Enter**.

4) Repeat these steps to define additional folders. You can specify a maximum of 64 folders.

b. At the bottom of the Mirroring page, check or uncheck the attributes you want associated with the default mirror operation. For additional information about these attributes, see “Mirroring Page” on page 47.

c. In the **Client may set** area, check those attributes that you want end users to be able to modify through SMART Reaction Client.

d. Click on **Apply**.

7. Click on the **General** tab.

   a. In the **Error level to log** field, select a level that fits your needs (1=errors only, 2=log information and errors, 3–5=log debug information for support use only).

   b. In the **Clients maximum storage allowed on servers** field, select an amount (in units of 1,000,000 bytes) that you want to set as a maximum limit for any individual client.

   c. In the **Message timeout** field, select the number of seconds that you want messages to be displayed on the client workstation screen.

   d. In the remainder of the check boxes, check or uncheck the attributes you want associated with the default mirror operation. For additional information about these attributes, see “General Page” on page 45.

   e. In the **Client may set** area, check those attributes that you want end users to be able to modify through SMART Reaction Client.

   f. Click on **Apply**.

8. Click on **OK**. The Defaults notebook closes and you are returned to the Control and Status window.

   Note: In the following steps, you will be entering the individual client workstations into the SMART Reaction Manager database. The default settings cannot be passed to the client workstations until they are registered in the SMART Reaction Manager database.

9. Click on **Client Settings...**.

10. Click on the Clients tab.

11. In the **ID (machine name) for new client** field, type the name of one of the new client workstations. This is the computer name as found on the Identification tab of the Network notebook (accessible through the Control Panel of each individual client).

12. Click on **Apply**.

13. Repeat steps 11 and 12 for each new client workstation.

14. After all new client workstations have been added, click on **OK**.

This completes the process of creating default settings.

What to do next

- Depending on the size of your company and the individual needs of your end users, you might want to create group settings or individual settings. See “Creating Backup, Restore, and Mirror Group Settings” on page 65 and “Creating Backup, Restore, and Mirror Client Settings” on page 66 for details.

- Now that you created default settings and registered each client workstation in the SMART Reaction Manager database, you can install SMART Reaction Client on your client workstations. See "Installing SMART Reaction Client" on page 10 for instructions.

  Note: If you set up mirroring to take place continuously, you must initiate the mirroring process manually one time after installing SMART Reaction Client before the mirroring process becomes automated. See "Mirroring a Hard Disk" on page 69 for details.

Creating Backup, Restore, and Mirror Group Settings

Group settings are set through SMART Reaction Manager only. If you intend to use group settings, you must have already defined a set of default settings. You will use the default settings or another set of group settings as a template or starting point.

1. Double-click on the SMART Reaction icon in the System Tray.

   Note: If the icon is not present, the SMART Reaction Backup/Restore/Mirror function is not currently active. See "Manually Starting the SMART Reaction Backup/Restore/Mirroring Function" on page 17 for information about restarting this function.

   The Control and Status window appears.

2. Click on **Group Settings...**.
3. Click on the Groups tab and do the following:
   a. In the **Name for new group** field, type a name. The name can be up to 15 characters in length and be any combination of alphanumeric characters (A-Z, a-z, or 0-9). Symbols and spaces are not permitted.
   b. Determine if you will be using an existing group's settings or the default settings as a template.
      - If you will be using an existing group's settings as a template, select a group from the **Group** field drop-down list, then click on the **Selected Group** radio button. If you want to include the client list from the source group, check the **Copy the current client list into the new Group** check box.
      - If you will be using the default settings, click on the **Default Settings** radio button.
   c. Click on **Create New Group**.
   d. Click on **Refresh Group List**
   e. Use the drop-down list in the **Group** field to select the group name you just created.
   f. Click on the Clients tab.
   g. Edit the **Clients for selected group** list, by doing the following:
      - To add a client, click on **Add**, type the client name in the field, then press **Enter**.
      - To delete a client from the list, click on the client name to highlight it, then click on **Remove Selection**.

      Repeat this step for each client workstation you want to add or delete in this group. When you have completed your list, click on **Apply**.
4. Click on each of the other tabs (Names/Services, General, Backup, and Mirroring) and modify the fields that are different from your template settings. Click on **Apply** as you complete each page.

   Note: If you need assistance filling out any of the fields, refer to "Creating Backup, Restore, and Mirror Default Settings" on page 62. The fields in the Groups Settings notebook follow the same rules and conventions as those contained in the comparable pages of the Default Settings notebook.

5. When you are finished making the changes, click on **OK**.

Creating Backup, Restore, and Mirror Client Settings

Individual client settings are set through either SMART Reaction Manager or SMART Reaction Client. If you intend to use individual client settings, you must have already defined a set of default settings. You will use the default settings, a set of group settings, or another individual client's settings as a template or starting point.

1. Double-click on the SMART Reaction icon in the System Tray.

   Note: If the icon is not present, the SMART Reaction Backup/Restore/Mirror function is not currently active. See “Manually Starting the SMART Reaction Backup/Restore/Mirroring Function” on page 17 for information about restarting this function.

   The Control and Status window appears.

2. Click on **Client Settings...**.
3. Click on the Clients tab and do the following:
   a. In the **ID (machine name) for new client** field, type the new client workstation's computer name as defined in the Identification page of the Network notebook (accessible through the new client workstation's control panel).
   b. Determine if you will be using an existing group's settings, an existing client's settings, or the default settings as a template.
      - If you will be using an existing client's settings, select a client from the **Selected Client** field drop-down list, then click on the **Currently displayed Client** radio button.
      - If you will be using an existing group's settings as a template, select a group from the **Group for new client** field drop-down list, then click on the **Selected Group** radio button.
      - If you will be using the default settings, click on the **Default Settings** radio button.
4. Click on each of the other tabs (Names/Services, General, Backup, and Mirroring) and modify the fields that are different from your template settings.

   Note: If you need assistance filling out any of the fields, refer to “Creating Backup, Restore, and Mirror Default Settings” on page 62. The fields in the Client Settings notebook follow the same rules and conventions as those contained in the comparable pages of the Default Settings notebook.

5. When you are finished making the changes, click on **OK**.

Adding New Clients to the SMART Reaction Database

Use this procedure to add new client workstations to the SMART Reaction Manager database *before* installing SMART Reaction Client on those workstations. SMART Reaction Manager cannot pass down a default, group, or client configuration until the client workstation has been added to the SMART Reaction Manager database.

Once SMART Reaction Manager has been installed and a set of default settings defined, each client workstation that is registered in the SMART Reaction database will receive the default configuration as SMART Reaction Client is installed on it.

To add a client to the database:

1. From the SMART Reaction Manager, double-click on the SMART Reaction icon in the System Tray.

Note: If the icon is not present, the SMART Reaction Backup/Restore/Mirror function is not currently active. See "Manually Starting the SMART Reaction Backup/Restore/Mirroring Function" on page 17 for information about restarting this function.

The Control and Status window appears.

2. Click on **Client Settings...**.
3. Click on the Clients tab.
4. In the **ID (machine name) for new client** field, type the name of one of the new client workstations. This is the computer name as found on the Identification tab of the Network notebook (accessible through the Control Panel of each individual client).
5. Click on **Apply**.
6. Repeat steps 4 and 5 for each new client workstation.
7. After all new client workstations have been added, click on **OK**.

Deleting Clients from the SMART Reaction Database

Use this procedure to delete a client workstation from the SMART Reaction Manager database.

Any time you update an existing configuration, add a new configuration, or assign a new client to an existing configuration, SMART Reaction Manager attempts to send the configuration information to the affected client or group of clients. If the affected client workstation is powered off or disconnected from the network, you will receive the following message:

`Could not contact` *`client-name`*

You need to delete the client workstation from the database if the client workstation has been taken out of service or if you typed the client computer name incorrectly in the **ID (machine name) for new client** field on the Clients page of the Client Settings notebook when you added the client workstation to the database.

To delete a client from the database:

1. From the SMART Reaction Manager, double-click on the SMART Reaction icon in the System Tray.

   Note: If the icon is not present, the SMART Reaction Backup/Restore/Mirror function is not currently active. See "Manually Starting the SMART Reaction Backup/Restore/Mirroring Function" on page 17 for information about restarting this function.

   The Control and Status window appears.
2. Click on **Client Settings...**.
3. Click on the Clients tab.
4. In the **Selected Client** field, use the drop-down list to select the client name you want to delete.
5. Click on **Delete Selected Client**.
6. Repeat steps 4 and 5 for each client workstation you want to delete..
7. After all affected client workstations have been deleted, click on **OK**.

Adding Clients to Group Settings

If you want to add a new client workstation to an existing group, do the following from SMART Reaction Manager:

1. Double-click on the SMART Reaction icon in the System Tray.

   Note: If the icon is not present, the SMART Reaction Backup/Restore/Mirror function is not currently active. See “Manually Starting the SMART Reaction Backup/Restore/Mirroring Function” on page 17 for information about restarting this function.

   The Control and Status window appears.

2. Click on **Group Settings...**.
3. Click on the Clients tab.
4. In the **Group** field, at the top of the window, use the drop-down list to select the group to which the new client workstation will be a part.
5. In the **Clients in selected group** box, click on **Add**, type the client name in the field, then press **Enter** Repeat this step for each new client workstation to be added to the list.
6. After the new client workstations have been added to the list, click on **OK**.

Modifying Existing Client Settings

If the network administrator has enabled all of the **Client may set** check boxes, the end user can modify existing settings using SMART Reaction Client. However, at the network administrator's discretion, some or all of the fields might be locked. It is also important to understand how changes in client, group, and default settings can affect each other. See “Configuring Groups or Individual Client Workstations” on page 58 for details.

To change the client settings, do the following:

1. Double-click on the SMART Reaction icon in the System Tray.

   Note: If the icon is not present, the SMART Reaction Backup/Restore/Mirror function is not currently active. See “Manually Starting the SMART Reaction Backup/Restore/Mirroring Function” on page 17 for information about restarting this function.

   The Control and Status window appears.

2. Click on **Client Settings...**.
3. If you are making the changes from SMART Reaction Manager, use the drop-down list in the **Selected Client** field to select the appropriate client.
4. Change the information on each page of the notebook as required.
5. When all changes have been made, click on **OK**.

The changed information will become synchronized between SMART Reaction Manager and SMART Reaction Client.

Backing Up, Mirroring, and Restoring Hard Disks

This section provides step-by-step instructions for manually initiating a backup, restore, or mirror operation. For information about scheduling a backup or mirror operation, see “Scheduling an Event” on page 79.

Backing Up a Hard Disk

The following procedure assumes that valid backup settings already exist and do not require modification. If you need to create or modify the backup settings, see “Working with Backup, Restore, and Mirror Settings” on page 62.

To back up a hard disk:

1. Double-click on the SMART Reaction icon in the System Tray.

   Note: If the icon is not present, the SMART Reaction Backup/Restore/Mirror function is not currently active. See “Manually Starting the SMART Reaction Backup/Restore/Mirroring Function” on page 17 for information about restarting this function.

   The Control and Status window appears.

2. Click on the Backup tab.
3. If you are initiating the backup from SMART Reaction Manager, use the drop-down list in the **Selected Client** field to select the appropriate client.
4. Select the appropriate backup set from the drop-down list in the **Selected Backup Set** field.
5. Click on **Start Backup**.

Mirroring a Hard Disk

The following procedure assumes that valid mirror settings already exist and do not require modification. If you need to create or modify the mirror settings, see “Working with Backup, Restore, and Mirror Settings” on page 62.

To mirror a hard disk:

1. Double-click on the SMART Reaction icon in the System Tray.

   Note: If the icon is not present, the SMART Reaction Backup/Restore/Mirror function is not currently active. See “Manually Starting the SMART Reaction Backup/Restore/Mirroring Function” on page 17 for information about restarting this function.

   The Control and Status window appears.

2. Click on the Mirror tab.
3. If you are initiating the mirror operation from SMART Reaction Manager, use the drop-down list in the **Selected Client** field to select the appropriate client.
4. Click on **Start Mirroring**.

The selected folders are mirrored. If mirroring has been set up for continuous operation, the mirror files will be updated each time a changed file is saved. If mirroring has been set up for non-continuous operation, the mirror files will not be updated again until this procedure is repeated or a scheduler triggers a mirror operation.

Restoring a Hard Disk

If you replaced a hard disk, ensure that the new hard disk is partitioned correctly and formatted before restoring the files. If the new drive is partitioned differently from the drive it replaced or has primary or extended partition assignments that are different from the old drive, the drive letter assignments might be different, which might cause the restore operation to write data on the wrong drive. You must restore the files to the same drive letter from which the backup files were created.

Restoring Hard Disk Backup Files

To restore data from a backup operation:

1. Double-click on the SMART Reaction icon in the System Tray.

   Note: If the icon is not present, the SMART Reaction Backup/Restore/Mirror function is not currently active. See “Manually Starting the SMART Reaction Backup/Restore/Mirroring Function” on page 17 for information about restarting this function.

   The Control and Status window appears.

2. If you are initiating the restore operation from SMART Reaction Manager, select the appropriate client from the drop-down list at the end of the **Selected Client** field.
3. Click on the Restore Backup tab.
4. In the **Selected Restore Set** field, use the drop-down list to select the backup set.
5. In the **Status for this backup set** field, verify that there is a valid set of backup files for the selected backup set.
6. In the **Drives stored in the backup** field, select the correct drive letter from the drop-down list. If more than one drive was involved in the backup operation, you will have to perform multiple restore operations to restore all of the files. Restore operations are done one drive at a time.
7. In the **Destination for restored files** field, type the drive letter and path.

   Note: Restoring files will overwrite existing files with the same name in the restore path. The Restore operation cannot restore individual files. Therefore, if there is any danger of overwriting files that you want to keep, create a new path, such as `c:\restore`, in the **Destination for restored files** field. After the restore process is complete, you can manually copy or move the desired files into their respective directories.

8. Initiate the restore operation using one of the following methods:
   - Click on **Start Restore**. The restore operation will start immediately if the target client workstation is powered on and connected to the network.

     -OR-

   - Check the **Automatically restore client's backup on next restart** check box. This check box is active only if a PFA-generated backup set (Hard Drive 0 or Hard Drive 1) is selected. The restore operation will start the next time the target client workstation is restarted. When the restore operation is complete, SMART Reaction will automatically remove the check from the check box.

Restoring Hard Disk Mirror Files

To restore data from a mirror operation:

1. Double-click on the SMART Reaction icon in the System Tray.

   Note: If the icon is not present, the SMART Reaction Backup/Restore/Mirror function is not currently active. See “Manually Starting the SMART Reaction Backup/Restore/Mirroring Function” on page 17 for information about restarting this function.

   The Control and Status window appears.

2. If you are initiating the restore operation from SMART Reaction Manager, select the appropriate client from the drop-down list at the end of the **Selected Client** field.
3. Click on the Restore Mirrors tab.
4. In the **Mirror Recovery for this Client** field, verify that a valid set of mirror files exists for the selected client.

5. In the **Drives stored in the mirror** field, select the correct drive letter from the drop-down list. If more than one drive was involved in the mirror operation, you will have to perform multiple restore operations to restore all of the files. Restore operations are done one drive at a time.
6. In the **Destination for restored files** field, type the drive letter and path.

   Note: Restoring files will overwrite existing files with the same name in the restore path. The Restore operation cannot restore individual files. Therefore, if there is any danger of overwriting files that you want to keep, create a new path, such as `c:\restore`, in the **Destination for restored files** field. After the restore process is complete, you can manually copy or move the desired files into their respective directories.
7. Initiate the restore operation using one of the following methods:
   - Click on **Start Restore**. The restore operation will start immediately if the target client workstation is powered on and connected to the network.

     -OR-
   - Check the **Automatically restore client's backup on next restart** check box. This check box is active only if a PFA-generated backup set (Hard Drive 0 or Hard Drive 1) is selected. The restore operation will start the next time the target client workstation is restarted. When the restore operation is complete, SMART Reaction will automatically remove the check from the check box.

Changing the SMART Reaction Manager Password

1. Double-click on the SMART Reaction icon in the System Tray.

   Note: If the icon is not present, the SMART Reaction Backup/Restore/Mirror function is not currently active. See "Manually Starting the SMART Reaction Backup/Restore/Mirroring Function" on page 17 for information about restarting this function.

   The Control and Status window appears.
2. Click on **Default Settings...**.
3. Click on the **Password** tab.
4. In the **Current password** field, type your current password. If you do not know your current password, you cannot change your password.
5. In the **Enter new password** field, type in a new password. Your new password can be up to 32 characters in length and consist of any combination of alphanumeric characters (A-Z, a-z, or 0-9). Spaces and symbols are not permitted.
6. In the **Enter new password again** field, type the new password again for verification. If the entry in this field does not match the entry in the **Enter new password** field, the password will not be changed.
7. Click on **OK**.

Working with Profiles

You use profiles to:

- Define how your computer responds to a PFA alert
- To schedule a backup, restore, or mirror operation.

Creating an Alphanumeric Pager Profile

1. Start IBM SMART Reaction from the Start menu.
2. From the Response Summary window, click on **Edit**.
3. From the Configuration notebook, click on the Alphanumeric Pager tab.
4. Click on **Settings**. The Settings window appears.
    a. Select whether you will be using a local modem (one installed in or attached to the computer) or a remote modem (one installed in or attached to another computer on the network). If you select a remote modem, you will need to provide either a TCP/IP host name or the numeric address of the computer with the modem.
    b. Click on **OK**.
5. Click on **New**. The Save Profile As window appears.
6. In the Save Profile As window, type a name (64 characters maximum). This name must be different from any name already being used for an Alphanumeric Pager profile.
7. Click on **OK**. The Save Profile As window disappears and the name appears in the **Profile** field.
8. In the **Pager Number** field, type the telephone number for the pager. Be sure to include any numbers required for an outside line and, if the number is outside your local calling area, the area code and country code, if required.
9. In the **PIN Number** field, type the personal identification number required by the paging system.
10. In the **Message to be sent** field, type the message (64 characters maximum).
11. Click on **Save**. The profile is automatically assigned to the response.

What to do next:.

- To create another Alphanumeric Pager profile, repeat steps 5 through 11 of this procedure.
- To return to the Response Summary window, click on **OK**.
- To modify an existing profile, see “Modifying an Existing Profile” on page 78.
- To create a different type of profile, refer to one of the following:
    - “Creating a Hard Disk Backup Profile”
    - “Creating a Hard Disk Mirror Profile” on page 73
    - “Creating an E-mail Profile” on page 74
    - “Creating a Custom Program Profile” on page 77
    - “Creating a Numeric Pager Profile” on page 75
    - “Creating a Message Box Profile” on page 76
    - “Creating a Scheduler Profile” on page 78

Creating a Hard Disk Backup Profile

Note: If you intend to use any backup program other than the SMART Reaction backup program, you must install the program on the computer hard disk. Running a backup program from a server or peer computer is not supported. The SMART Reaction backup program was installed on your hard disk as part of the IBM SMART Reaction installation.

1. Start IBM SMART Reaction from the Start menu.
2. From the Response Summary window, click on **Edit**.
3. From the Configuration notebook, click on the Backup/Restore/Mirror tab.
4. Click on **New**. The Save Profile As window appears.

5. In the Save Profile As window, type a name (64 characters maximum). This name must be different from any name already being used for a Backup, Restore, or Mirror profile.
6. Click on **OK**. The Save Profile As window disappears and the name appears in the **Profile** field.
7. Click on the radio button for the backup program you want to use.
   - If you select ADSM, type your ADSM password in the field provided, then continue with step 8.
   - If you select SMART Reaction Backup, click on **Configure SMART Reaction**. The Control and Status window appears. Fill out all appropriate fields; then save the configuration. If you need assistance, see "Control and Status Window" on page 35. After saving the configuration, *minimize* the Control and Status window, then continue with step 8.
   - If you select **Other**, the **Backup Program** field, **Additional Parameters** field, and Browse button are now active. Perform the following steps:
     a. Click on **Browse** to locate the backup program executable file; then select the file. The file name appears in the **Backup Program** field.
     b. In the **Additional Parameters** field, if needed, type in any command-line parameters required by the backup program executable file. See your backup program documentation for supported command-line parameters.
     c. Continue with step 8.
8. Click on **Save**. The profile is automatically assigned to the backup response.

What to do next:

- To return to the Response Summary window, click on **OK**.
- To modify an existing profile, see "Modifying an Existing Profile" on page 78.
- To schedule a backup event to take place at a specific day and time, see "Scheduling an Event" on page 79.
- To create a different type of profile, refer to one of the following:

  – "Creating an Alphanumeric Pager Profile" on page 72
  – "Creating a Hard Disk Mirror Profile"
  – "Creating an E-mail Profile" on page 74
  – "Creating a Custom Program Profile" on page 77
  – "Creating a Numeric Pager Profile" on page 75
  – "Creating a Message Box Profile" on page 76
  – "Creating a Scheduler Profile" on page 78

Creating a Hard Disk Mirror Profile

Note: If you intend to use a hard disk mirroring program other than the SMART Reaction mirroring program, you must install the program on the computer hard disk. Running the mirroring program from a server or peer client is not supported. The SMART Reaction mirroring was installed on your hard disk as part of the IBM SMART Reaction installation, but it must be configured before it becomes active.

1. Start IBM SMART Reaction from the Start menu.
2. From the Response Summary window, click on **Edit**.
3. From the Configuration notebook, click on the Backup/Restore/Mirror tab.
4. Click on **New**. The Save Profile As window appears.

5. In the Save Profile As window, type in a name (64 characters maximum). This name must be different from any name already being used for a Backup, Restore, or Mirror profile.
6. Click on **OK**. The Save Profile As window disappears and the name appears in the **Profile** field.
7. Click on the radio button for the mirroring program you want to use.
   - If you select SMART Reaction Mirror, click on **Configure SMART Reaction**. The Control and Status window appears. Fill out all appropriate fields; then save the configuration. If you need assistance, see "Control and Status Window" on page 35. After saving the configuration, continue with step 8.
   - If you select Other, the **Backup Program** field, **Additional Parameters** field, and Browse button are now active. Perform the following steps:
     a. Click on **Browse** to locate the mirroring program executable file; then select the file. The file name appears in the **Backup Program** field.
     b. In the **Additional Parameters** field, if needed, type in any command-line parameters required by the mirroring program executable file. See your mirroring program documentation for supported command-line parameters.
     c. Continue with step 8.
8. Click on **Save**. The profile is automatically assigned to the response.

What to do next:

- To return to the Response Summary window, click on **OK**.
- To modify an existing profile, see "Modifying an Existing Profile" on page 78.
- To create a different type of profile, refer to one of the following:

  – "Creating an Alphanumeric Pager Profile" on page 72
  – "Creating a Hard Disk Backup Profile" on page 72
  – "Creating an E-mail Profile"
  – "Creating a Custom Program Profile" on page 77
  – "Creating a Numeric Pager Profile" on page 75
  – "Creating a Message Box Profile" on page 76
  – "Creating a Scheduler Profile" on page 78

Creating an E-mail Profile

To use the E-mail feature, you must have the Microsoft Mail program installed.

1. Start IBM SMART Reaction from the Start menu.
2. From the Response Summary window, click on **Edit**.
3. From the Configuration notebook, click on the E-mail tab.

   Note: The first time you click on the E-mail tab, a pop-up message appears informing you that an E-mail wizard will guide you through creating a new Windows Messaging profile. Click on **OK** and follow the instructions on the screen to create the Windows Messaging profile. When the Windows Messaging profile is complete, continue with these instructions.
4. Click on **New**. The Save Profile As window appears.
5. In the Save Profile As window, type in a name (64 characters maximum). This name must be different from any name already being used for an E-mail profile.
6. Click on **OK**. The Save Profile As window disappears and the name appears in the **Profile** field.

7. In the **To** field, type the complete E-mail address of the primary recipient.
8. In the **Subject** field, type a short description of the E-mail topic.
9. In the **CC** field, type the complete E-mail address of anyone to whom you want to send a copy of the E-mail.
10. In the **Message** field, type the E-mail message (1024 characters maximum).
11. Click on **Save**. The profile is automatically assigned to the response.

What to do next:

- To create another E-mail profile, repeat steps 4 through 11 of this procedure.
- To return to the Response Summary window, click on **OK**.
- To modify an existing profile, see "Modifying an Existing Profile" on page 78.
- To create a different type of profile, refer to one of the following:

  – "Creating an Alphanumeric Pager Profile" on page 72
  – "Creating a Hard Disk Backup Profile" on page 72
  – "Creating a Hard Disk Mirror Profile" on page 73
  – "Creating a Custom Program Profile" on page 77
  – "Creating a Numeric Pager Profile"
  – "Creating a Message Box Profile" on page 76
  – "Creating a Scheduler Profile" on page 78

Creating a Numeric Pager Profile

1. Start IBM SMART Reaction from the Start menu.
2. From the Response Summary window, click on **Edit**.
3. From the Configuration notebook, click on the Numeric Pager tab.
4. Click on **Settings**. The Settings window appears.
   a. Select whether you will be using a local modem (one installed in or attached to the computer) or a remote modem (one installed in or attached to another computer on the network). If you select a remote modem, you will need to provide either a TCP/IP host name or the numeric address of the computer with the modem.
   b. Click on **OK**.
5. Click on **New**. The Save Profile As window appears.
6. In the Save Profile As window, type in a name (64 characters maximum). This name must be different from any name already being used for a Numeric Pager profile.
7. Click on **OK**. The Save Profile As window disappears and the name appears in the **Profile** field.
8. In the **Pager Number** field, type the telephone number for the pager. Be sure to include any numbers required for an outside line. If you are calling outside your local calling area, include the area code and country code, if required.
9. In the **Message** field, type the numeric message. This is usually your telephone number, but could be an Internet Protocol (IP) address, error code, or any other numeric message up to 15 characters.
10. If the paging system requires a personal identification number, type it in the **PIN** field.
11. Click on **Save**. The profile is automatically assigned to the response.

What to do next:

- To create another Numeric Pager profile, repeat steps 5 through 11 of this procedure.
- To return to the Response Summary window, click on **OK**.
- To modify an existing profile, see “Modifying an Existing Profile” on page 78.
- To create a different type of profile, refer to one of the following:
  - “Creating an Alphanumeric Pager Profile” on page 72
  - “Creating a Hard Disk Backup Profile” on page 72
  - “Creating a Hard Disk Mirror Profile” on page 73
  - “Creating an E-mail Profile” on page 74
  - “Creating a Custom Program Profile” on page 77
  - “Creating a Message Box Profile”
  - “Creating a Scheduler Profile” on page 78

Creating a Message Box Profile

1. Start IBM SMART Reaction from the Start menu.
2. From the Response Summary window, click on **Edit**.
3. From the Configuration notebook, click on the Message Box tab.
4. Click on **New**. The Save Profile As window appears.
5. In the Save Profile As window, type in a name (64 characters maximum). This name must be different from any name already being used for a Message Box profile.
6. Click on **OK**. The Save Profile As window disappears and the name appears in the **Profile** field.
7. In the **Title** field, type the text that you want to appear on the title bar of the message box (64 characters maximum).
8. In the **Severity** field, click on the arrow at the end of the field; then select the appropriate severity level from the drop-down menu. The severity level will be displayed directly below the title bar of the message box you are creating.
9. In the **Size** field, click on the arrow at the end of the field; then select a size from the drop-down menu. This is the physical size (height and width). The actual size of the message box is affected by the type of display and the resolution at which it is set. If you are not sure how the message will look, just select any size for now. You will have an opportunity to preview the message later in this procedure.
10. In the **Body** field, type the message you want displayed (320 characters maximum).
11. If you want the message to close automatically if it has not been responded to within a specified time, do the following in the **Close after timeout** field:
    a. Check the check box.
    b. Click on the arrow at the end of the field; then select a duration.
12. If you want the message to display Yes and No buttons (as opposed to an OK button), check the check box in the **Prompt Response** field.
13. If both the **Close after timeout** check box and **Prompt Response** check box are checked, the **Response at timeout** field becomes active. Click on either the Yes or No button to set the default response that will occur when the timeout period expires.
14. Click on **View** to preview the message. Close the message and modify the profile, if necessary.
15. Click on **Save**. The profile is automatically assigned to the response.

What to do next:

- To create another Message Box profile, repeat steps 4 through 15 of this procedure.
- To return to the Response Summary window, click on **OK**.
- To modify an existing profile, see "Modifying an Existing Profile" on page 78.
- To create a different type of profile, refer to one of the following:
  - "Creating an Alphanumeric Pager Profile" on page 72
  - "Creating a Hard Disk Backup Profile" on page 72
  - "Creating a Hard Disk Mirror Profile" on page 73
  - "Creating an E-mail Profile" on page 74
  - "Creating a Custom Program Profile"
  - "Creating a Numeric Pager Profile" on page 75
  - "Creating a Scheduler Profile" on page 78

Creating a Custom Program Profile

1. Start IBM SMART Reaction from the Start menu.
2. From the Response Summary window, click on **Edit**.
3. From the Configuration notebook, click on the Custom Program tab.
4. Click on **New**. The Save Profile As window appears.
5. In the Save Profile As window, type in a name (64 characters maximum). This name must be different from any name already being used for a Custom Program profile.
6. Click on **OK**. The Save Profile As window disappears and the name appears in the **Profile** field.
7. In the **Path and file name** field, type in the complete path and file name of the program you want to launch. You can also use the Browse button to locate and select the file.
8. In the **Additional parameters** field, type any command-line parameters required to achieve the desired result. Refer to your program documentation for supported command-line parameters.
9. Click on **Save**. The profile is automatically assigned to the response.

What to do next:

- To create another Custom Program profile, repeat steps 4 through 9 of this procedure.
- To return to the Response Summary window, click on **OK**.
- To modify an existing profile, see "Creating a Custom Program Profile."
- To create a different type of profile, refer to one of the following:
  - "Creating an Alphanumeric Pager Profile" on page 72
  - "Creating a Hard Disk Backup Profile" on page 72
  - "Creating a Hard Disk Mirror Profile" on page 73
  - "Creating an E-mail Profile" on page 74
  - "Creating a Numeric Pager Profile" on page 75
  - "Creating a Message Box Profile" on page 76
  - "Creating a Scheduler Profile" on page 78

Creating a Scheduler Profile

You can use the scheduler for a hard-disk backup or mirroring operation only, and you are limited to one profile.

1. Start IBM SMART Reaction from the Start menu.
2. From the Response Summary window, click on **Edit**.
3. From the Configuration notebook, click on the Scheduler tab.
4. Click on **New**. The Save Profile As window appears.
5. In the Save Profile As window, type in a name (64 characters maximum). This name must be different from any name already being used for a Scheduler profile.
6. Click on **OK**. The Save Profile As window disappears and the name appears in the **Profile** field.
7. In the **Frequency** field, click on the arrow at the end of the field; then select how often you want the event to take place.

   Note: The selection you make in this field determines which other fields remain active. Inactive fields are grayed out.
8. Click on the arrow at the end of each active field and use the drop down menu to select the settings for your schedule. If you use the **Day of Month** and **Month** fields, you must also type in the year (four digits). For example, 1998.
9. Click on **Save**.

What to do next:

- To associate this profile with a response, see "Scheduling an Event" on page 79.
- To return to the Response Summary window, click on **OK**.
- To modify an existing profile, see "Modifying an Existing Profile."
- To create a different type of profile, refer to one of the following:

  - "Creating an Alphanumeric Pager Profile" on page 72
  - "Creating a Hard Disk Backup Profile" on page 72
  - "Creating a Hard Disk Mirror Profile" on page 73
  - "Creating an E-mail Profile" on page 74
  - "Creating a Custom Program Profile" on page 77
  - "Creating a Numeric Pager Profile" on page 75
  - "Creating a Message Box Profile" on page 76

Modifying an Existing Profile

You can create a new profile based on an existing profile and modify only those properties that need to be different. This process might save you some time.

1. Start IBM SMART Reaction from the Start menu.
2. From the Response Summary window, click on **Edit**.
3. From the Configuration notebook, click on the tab containing the profile you want to use as a base.
4. In the **Profile** field, click on the arrow at the end of the field, then select the profile that you want to use as a base. The properties for that profile are displayed.
5. Modify the fields that you want to change.
6. Click on **Save As**.

7. In the Save Profile As window, type in a name (64 characters maximum). This name must be different from any name already being used for the type of profile you are creating.
8. Click on **OK**. The Save Profile As window disappears, the new name appears in the Profile field, and the profile (with the exception of a Scheduler profile) is automatically assigned to the response.

What to do next:

- To modify another profile, repeat steps 3 through 8 of this procedure.
- To return to the Response Summary window, click on **OK**.

Deleting a Profile

Use this procedure to delete a profile. With the exception of the Scheduler profile, this is the only method of disassociating a profile from a response. For information about disassociating a Scheduler profile from another profile, see “Unscheduling an Event” on page 80.

1. Start IBM SMART Reaction from the Start menu.
2. From the Response Summary window, click on **Edit**.
3. From the Configuration notebook, click on the tab containing the profile you want to delete.
4. In the **Profile** field, click on the arrow at the end of the field; then select the profile you want to delete. The properties for that profile are displayed.
5. Click on **Remove**.
6. When the window pops up asking if you are sure you want to delete the profile, click on **Yes**. The profile is deleted.

What to do next:

- To delete another profile, repeat steps 3 through 6 of this procedure.
- To return to the Response Summary window, click on **OK**.

Assigning a Profile to a Response

Any new profile, with the exception of a Scheduler profile, is automatically assigned to the appropriate response (in the Response Summary window) when the profile is created and saved. A Scheduler profile remains inactive until it is associated with a Backup or Mirroring profile. For detailed information, see the procedure for creating the specific type of profile. If you need to associate a Scheduler profile with a Backup or Mirror profile, see “Scheduling an Event.”

Working with Schedules

Use the scheduler to schedule backup and mirroring events only. You can schedule a one-time event or a repeat event (daily, weekly, or monthly).

Scheduling an Event

To schedule an event:

1. Start IBM SMART Reaction from the Start menu.
2. Create a Scheduler profile (see “Creating a Scheduler Profile” on page 78 for details). Then, return to the Response Summary window.

3. From the Response Summary window, click on **Configure Scheduler**. The Configure Scheduled Events window opens.
4. In the **Scheduled Event Profile** field, click on the arrow at the end of the field; then click on the Scheduler profile you want to use.
5. In the **Backup/Mirroring Profile** field, click on the arrow at the end of the field, then click on the Backup or Mirror profile you want to use.
6. Click on **Add**. The selected Backup or Mirror profile appears below in the Scheduler profile in the summary box. The event is now scheduled.

What to do next:

- To close the Configure Scheduled Events window, click on **OK**.
- To unschedule an event, see "Unscheduling an Event."

Unscheduling an Event

To unschedule an event:

1. Start IBM SMART Reaction from the Start menu.
2. From the Response Summary window, click on **Configure Scheduler**. The Configure Scheduled Events window opens. The currently scheduled event appears in the summary box with the active Backup or Mirror profile listed below the associated Scheduler profile.
3. In the **Scheduled Event Profile** field, click on the arrow at the end of the field; then click on the Scheduler profile to use.
4. In the **Backup/Mirroring Profile** field, click on the arrow at the end of the field; then click on the Backup or Mirror profile in use.
5. Click on **Remove**. The Backup or Mirror profile disappears from below the Scheduler profile in the summary box. The event is no longer scheduled.

What to do next:

- To close the Configure Scheduled Events window, click on **OK**.
- To unschedule another event, repeat steps 3 through 5 of this procedure.
- To schedule an event, see "Scheduling an Event" on page 79.

Viewing Scheduled Events

To view the association between a Scheduler profile and a Backup or Mirror Profile:

1. Start IBM SMART Reaction from the Start menu.
2. From the Response Summary window, click on **Configure Scheduler**. The Configure Scheduled Events window opens. The currently scheduled event appears in the summary box with the active Backup or Mirror profile listed below the associated Scheduler profile.
3. When you are finished viewing the information, click on **OK** to close the Configure Scheduled Events window.

To view the details of a specific profile:

1. Start IBM SMART Reaction from the Start menu.
2. From the Response Summary window, click on **Edit**.
3. From the Configuration notebook, click on the tab containing the profile you want to view.

4. In the Profile field, click on the arrow at the end of the field; then select the profile that you want to view. The properties for that profile are displayed.

What to do next:

- To schedule an event, see “Scheduling an Event” on page 79.
- To unschedule an event, see “Unscheduling an Event” on page 80.

Chapter 6. Troubleshooting Tips

This chapter provides information to help resolve common problems.

- **Cannot contact client:** If you updated an existing configuration or added a new configuration for either the SMART Reaction Backup or Mirror program, SMART Reaction Manager attempts to send the configuration information to the affected client or group of clients. The error message

  `Could not contact` *`client_name`*

  can be caused by any of the following:

  – The affected client workstation is powered off.

  – The affected client workstation is disconnected from the network.

  – SMART Reaction Client is not currently running on the affected workstation.

  – You might have made a mistake when you typed the computer name in the **ID (machine name) for new client** field on the Clients page of the Client Settings notebook). To remove an invalid computer name see “Deleting Clients from the SMART Reaction Database” on page 67.

  – The configuration files for the affected client workstation might be corrupted. Copy the .SRC and .SRM files for the affected client workstation from SMART Reaction Manager to the client's SMART Reaction Client directory. (The default directory is C:\SRCLIENT.)

- **The Backup page of the Control and Status notebook on SMART Reaction Manager contains different information than the same page on SMART Reaction Client:** This is not an error condition. This condition occurs if SMART Reaction Manager and SMART Reaction Client have different backup sets selected. For example, SMART Reaction Manager might have **Path Backup** selected in the **Selected Backup Set** field while SMART Reaction Client has **Hard Drive 0** selected. Both SMART Reaction Manager and SMART Reaction Client must have the same backup set selected in order to have this page match.

- **Unable to cancel a backup operation while existing backup files are being deleted:** This is not an error condition. SMART Reaction does not allow the operator to cancel a backup operation while the program is deleting existing backup files from a designated server. The operator must wait until the files are erased before cancelling the backup operation.

- **The folder lists for backup and mirror operations on SMART Reaction Client to not match the folder lists on SMART Reaction Manager:** This is not an error condition. The network administrator can use SMART Reaction Manager to define folders in the Default settings notebook or the Client Settings notebook that exist on some or all client workstations. When the folder lists are viewed through SMART Reaction Client, the lists contain only those defined folders that exist on that client workstation. Defined folders that do not exist on the client workstation are ignored and do not appear on the list. If a new folder is later created on the client workstation and the folder matches a folder already defined in SMART Reaction Manager, the folder will automatically be added to the list when viewed through SMART Reaction Client.

- **A PFA-generated backup restores to the wrong hard disk drive:** If a new hard disk is installed in the client workstation, the drive letter assignment might change based on how the hard disk is partitioned and logical drive letters assigned. You must restore the files to the same drive letter from which the backup files were created. If you need to reassign drive letters, you can use the Windows Device Manager utility (Start → Settings → Control Panel → System → Device Manager).

- **Invalid backup error messages on SMART Reaction Manager when a backup operation is performed by a Windows 95 client workstation:** Windows 95 OSR 0 does not calculate available hard disk space correctly with hard disk drives having a capacity greater than 2GB.

To determine if you have Windows 95 OSR 0 installed, type `VER` at an MS DOS prompt. If the response is 4.00 (without any trailing characters), you have Windows 95 OSR 0 installed. Windows 95 OSR 0 is not supported by SMART Reaction.

- **SMART Reaction Client loads slowly on Windows 95:** This problem occurs when a client workstation running SMART Reaction Client defaults to a communication protocol that is not enabled on the computer running SMART Reaction Manager. SMART Reaction Client uses the TCP/IP protocol to communicate with SMART Reaction Manager. However, a client workstation might have other communication protocols, such as NetBEUI or IPX, installed in addition to TCP/IP. Some system calls might use the other protocols first. Therefore, the computer running SMART Reaction Manager should have all of the same protocols enabled as the client workstations running SMART Reaction Client. Otherwise, communication to the SMART Reaction Manager might time out.
- **Unable to communicate with a remote client workstation:** In order for SMART Reaction to operate, you must have the TCP/IP protocol enabled and properly configured on all computers running SMART Reaction Manager or SMART Reaction Client. Make sure that there are no conflicting or invalid TCP/IP addresses assigned.
- **Unable to create a directory during a backup or mirror operation:** If you receive the error:

  `Unable to create directory \\server\path\cb Access is Denied`

  the specified directory is being browsed by Windows Explorer, and SMART Reaction cannot access the directory. Either close the folder in Windows Explorer or close Windows Explorer.

Chapter 7. Notices and Trademarks

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Index

E

F

G

H

I

K

L

M

N

O

P

R

S

T

U

V

W

Y

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