



Getting Started with StorHouse/Admin

StorHouse/Control Center
Release 2

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Contents

Welcome

About StorHouse	xvi
About StorHouse/Control Center	xvi
Audience	xviii
What's inside	xviii
Related documentation	xix
Notational conventions	xx
Getting online help	xx

Chapter 1: Introduction

Features and benefits	1-2
Ease of operation	1-2
Enhanced system maintainability and reliability	1-3



Tasks you can perform in StorHouse/Admin	1-3
Special considerations for selected StorHouse features.....	1-14
Selected Command Language commands	1-14
Selected ESQL statements.....	1-15
Passwords for files and file access groups	1-15
Minimum StorHouse account privileges to use StorHouse/Admin	1-16

Chapter 2: Tour

Starting the program.....	2-2
The StorHouse/Control Center splash window.....	2-3
Framework menu	2-4
Selection bar	2-4
CC modules	2-4
Online docs.....	2-4
Applications	2-5
Active module pane.....	2-5
Working window list.....	2-5
StorHouse/Admin Login dialog box.....	2-6
StorHouse/Admin menu, tool, and status bars.....	2-7
Menu bar	2-7
Tool bar	2-9
Status bar	2-10
StorHouse/Admin working windows	2-10
Main window – StorHouse Resources.....	2-11
Folder list	2-12
Folder contents area	2-13
Main window – StorHouse Status.....	2-13
Operator messages area.....	2-14
Device status display	2-16
System performance and usage statistics	2-18
Resetting system statistics	2-19
Holding system statistics	2-19
Main window – ISCL	2-19



Tool bar	2-21
Status bar	2-21
Main window – ISQL	2-22
Tool bar	2-23
Task working windows.....	2-24
Status bar	2-26
Script working windows.....	2-26
Diagnostics working window	2-28
Tool bar	2-29
Exiting the system	2-30

Chapter 3: Setting up StorHouse/Admin

Configuring a data source	3-2
Creating a shortcut for a data source	3-3
Setting StorHouse/Admin preferences.....	3-4
Setting up StorHouse/Admin logging	3-6
Command Language log	3-7
SQL statement log	3-7
Diagnostics log.....	3-8
Task log	3-8
Script command log	3-9

Chapter 4: Working with the interface

Working with the folder list.....	4-2
Working with the folder contents area	4-3
Sorting columns.....	4-3
Working with lists.....	4-4
Filtering lists	4-4
Exporting lists	4-5
Creating reports from lists.....	4-6



Zooming a report	4-7
Displaying selected report pages	4-7
Printing a report	4-7
Saving a report	4-7
Loading a saved report	4-8

Chapter 5: System administration basics

Creating a level L volume set	5-2
Creating a level L file set	5-7
Creating a file access group	5-10
Creating a StorHouse account	5-12
Displaying user file properties	5-15
Printing a list of accounts	5-17
Setting a system parameter	5-18
Scheduling an event	5-20
Closing a current StorHouse log and opening a new one	5-22
Monitoring system performance statistics	5-24
Displaying device statuses	5-26
Displaying the device usage pie chart	5-29
Responding to an operator message	5-30
Submitting a StorHouse Command Language command	5-32

Chapter 6: Database administration basics

Creating a database	6-2
Creating a user tablespace	6-4
Creating a tablespace	6-6
Creating a user table	6-11



Creating an index for a user table	6-15
Granting database privileges.....	6-17
Revoking database privileges	6-18
Listing all tables in a database.....	6-19
Listing all indexes on a table.....	6-19
Listing column definitions in a table	6-21
Dropping a user table.....	6-22
Backing up all files in a segment.....	6-23
Invoking a metadata backup	6-25
Performing a database integrity test.....	6-27

Appendix A: StorHouse/Admin Command Language

Appendix B: Privileges for system administration task

Appendix C: Privileges for database administration tasks

Index



Contents



Figures

Figure i: Sample StorHouse/Control Center configuration	xvii
Figure 2-1: StorHouse/Control Center desktop shortcut.....	2-2
Figure 2-2: StorHouse/Admin shortcut	2-2
Figure 2-3: StorHouse/Control Center splash window.....	2-3
Figure 2-4: Login dialog box.....	2-6
Figure 2-5: StorHouse/Admin menu bar.....	2-7
Figure 2-6: StorHouse/Admin tool bar	2-9
Figure 2-7: StorHouse/Admin status bar	2-10
Figure 2-8: StorHouse Resources working window	2-11
Figure 2-9: Sample expanded folder	2-12
Figure 2-10: StorHouse Status working window	2-14
Figure 2-11: Operator messages area	2-15
Figure 2-12: Device status display	2-16
Figure 2-13: Device statistics display	2-17
Figure 2-14: Expanded operator messages area	2-18
Figure 2-15: System performance and usage statistics.....	2-18
Figure 2-16: ISCL working window.....	2-20



Figures

Figure 2-17: Closing the ISCL working window	2-21
Figure 2-18: ISCL tool bar	2-21
Figure 2-19: ISCL status bar	2-21
Figure 2-20: ISQL working window	2-22
Figure 2-21: Closing the ISQL working window	2-23
Figure 2-22: ISQL tool bar	2-23
Figure 2-23: Options in ISQL tool bar	2-24
Figure 2-24: Sample task window	2-25
Figure 2-25: Closing a task working window	2-25
Figure 2-26: Task window status bar	2-26
Figure 2-27: Sample script window	2-27
Figure 2-28: Closing a script working window	2-27
Figure 2-29: Diagnostics working window	2-28
Figure 2-30: Diagnostics tool bar	2-29
Figure 2-31: Options in Diagnostics tool bar	2-29
Figure 2-32: Exiting the system	2-30
Figure 4-1: Folder list and folder contents area	4-2
Figure 4-2: Report tool bar	4-6
Figure 5-1: Create VSET dialog box	5-3
Figure 5-2: Create FSET dialog box	5-8
Figure 5-3: Create Group dialog box	5-11
Figure 5-4: Create Group dialog box	5-11
Figure 5-5: Create Account dialog box	5-13
Figure 5-6: Enter Passwords dialog box	5-14
Figure 5-7: File Properties dialog box	5-17
Figure 5-8: System Configuration dialog box	5-19
Figure 5-9: Schedule dialog box	5-21
Figure 5-10: New Log dialog box	5-23
Figure 5-11: System performance and usage statistics area	5-25
Figure 5-12: Library folder display	5-28
Figure 5-13: Device status and mode display	5-28
Figure 5-14: Pie chart graphic	5-29
Figure 5-15: Responding to an operator message	5-31
Figure 5-16: Submitting a StorHouse Command Language command	5-33
Figure 6-1: Create Database dialog box	6-3
Figure 6-2: Create Tablespace dialog box	6-6
Figure 6-3: Add Subspace dialog box	6-7



Figure 6-4: Create Table dialog box	6-12
Figure 6-5: LOB Storage Options dialog box	6-14
Figure 6-6: Create Index dialog box	6-16
Figure 6-7: Backup dialog box	6-24
Figure 6-8: Metadata Backup dialog box	6-26





Tables

Figure i: Notational conventions	xx
Table 1-1: StorHouse/SM tasks	1-4
Table 1-2: StorHouse/RM tasks	1-9
Table 2-1: Menu functions	2-7
Table 2-2: StorHouse/Admin working windows	2-10
Table 4-1: Filter lists	4-4
Table 5-1: Ways to access the Create VSET dialog box	5-3
Table 5-2: Ways to access the Create FSET dialog box	5-8
Table 5-3: Ways to access the Create Group dialog box	5-10
Table 5-4: Ways to access the Create Account dialog box	5-12
Table 5-5: Ways to access the File Properties dialog box	5-16
Table 5-6: System statistics to monitor by release	5-24
Table 5-7: Device statuses and modes	5-26
Table 5-8: Device status icons	5-27
Table 5-9: Where to monitor StorHouse devices	5-27
Table 6-1: Ways to access the Create Database dialog box	6-3



Tables

Table 6-2: Ways to access the Create Tablespace dialog box	6-5
Table 6-3: Ways to access the Create Table dialog box	6-11
Table 6-4: Ways to access the Create Index dialog box	6-16
Table A-1: Command Language commands	A-2
Table B-1: Privileges for system administration tasks	B-2
Table C-1: Privileges for database administration tasks	C-2



Welcome

Welcome to StorHouse/Control Center's StorHouse/Admin—software to help you administer StorHouse®. This guide contains an introduction to the software and it:

- Describes the features of StorHouse/Admin
- Lists the StorHouse tasks that you can accomplish using StorHouse/Admin
- Takes you on a tour of the StorHouse/Admin windows, menus, and tool bars
- Explains how to set up StorHouse/Admin
- Explains how to perform selected StorHouse system and database management tasks.

This manual assumes that you have already installed StorHouse/Admin.



About StorHouse

StorHouse is FileTek's enterprise-wide solution for managing the capture, storage, movement, and access of gigabytes to petabytes of relational and non-relational detail data. StorHouse technology combines industry-leading, scalable storage devices and Open System processors with FileTek's specialized storage management software called StorHouse/SM and relational database management system (RDBMS) software called StorHouse/RM.

About StorHouse/Control Center

StorHouse/Control Center (CC) is FileTek's network computing system used to provide administrative control of StorHouse. CCServer software, which runs on Windows™ NT, 2000, and XP Pro platforms, provides network connectivity to StorHouse. Your configuration may have multiple CC servers. The CC clients, which run on Windows 95, 98, NT, 2000, and XP Pro platforms, consist of one or more of these graphical user interface (GUI) modules:

- *StorHouse/Admin* for performing StorHouse system and database administration tasks
- *CCAdmin* for configuring and managing the CC server
- *StorHouse/Performance Monitor* for analyzing StorHouse activity and performance.

While there are many possible CC configurations (multiple StorHouse systems with multiple CC servers and multiple CC clients running one or



more modules), the following drawing shows a sample configuration with the basic components of StorHouse/Control Center.

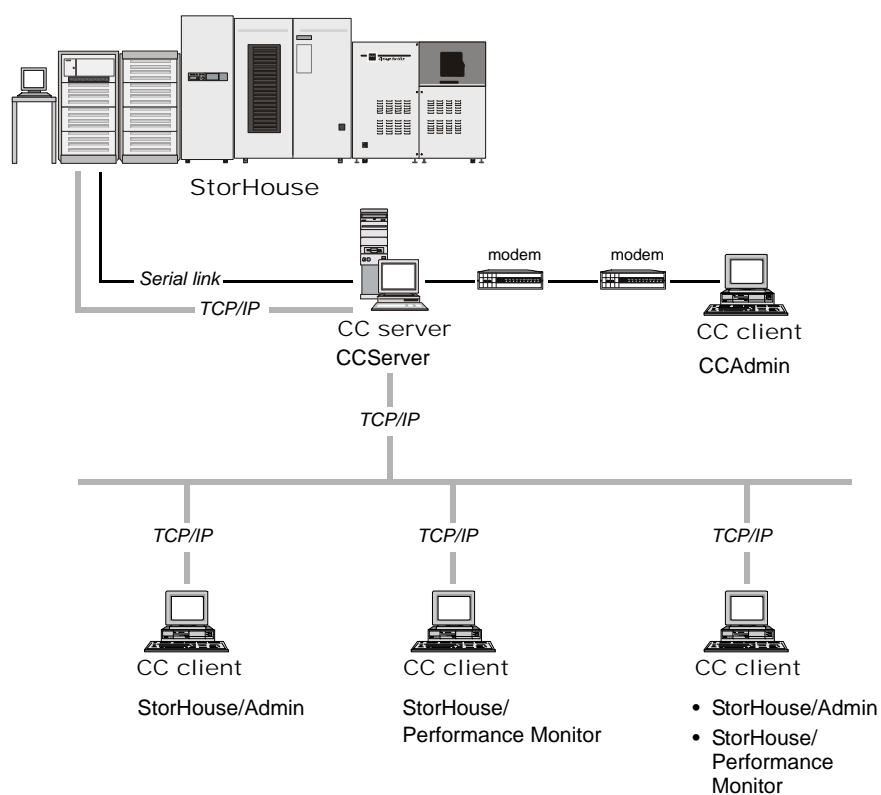


Figure i: Sample StorHouse/Control Center configuration

StorHouse/Control Center works with StorHouse/SM Release 4.2 and higher, and with StorHouse/RM Release 2.3 and higher. StorHouse/Performance Monitor works independently of the CC server, except when you're monitoring real-time activity.



Audience

Getting Started with StorHouse/Admin is intended for the StorHouse/SM system administrator and operator, and StorHouse/RM database administrators. It assumes you know and understand:

- The StorHouse Command Language
- StorHouse/SM concepts like volume sets and file sets, user log, and system parameters
- Windows-based products and standard Windows terminology, such as shortcuts.

If you have the StorHouse/RM option, this manual assumes you know and understand:

- Structured Query Language (SQL)
- StorHouse/RM concepts like user tables, metadata, and indexes
- How to manage StorHouse databases.

What's inside

This guide is organized as follows:

- Chapter 1, “Introduction,” describes the features and benefits of StorHouse/Admin and lists the StorHouse tasks you can perform.
- Chapter 2, “Tour,” guides you through the windows, menus, and tool bars you use in StorHouse/Admin.



- Chapter 3, “Setting up StorHouse/Admin,” explains the tasks to set up and administer StorHouse/Admin.
- Chapter 4, “Working with the interface,” explains how to use selected features of the interface.
- Chapter 5, “System administration basics,” shows you how to perform some typical StorHouse system administration tasks.
- Chapter 6, “Database administration basics,” show you how to perform some typical StorHouse database administration tasks.
- Appendix A, “StorHouse/Admin Command Language,” tells you where to submit StorHouse/Admin Command Language commands in the StorHouse/Admin GUI.
- Appendix B, “Privileges for system administration tasks,” tells you the privileges you need to perform StorHouse/Admin system administration tasks.
- Appendix C, “Privileges for database administration tasks,” tells you the privileges you need to perform StorHouse/Admin database administration tasks.

Related documentation

The StorHouse/Control Center document set includes the following additional manuals:

- *Getting Started with StorHouse/Control Center*, publication number 900138. This book tells you how to install and configure StorHouse/Control Center and each of the StorHouse/Control Center client



modules. You should read this book before you install StorHouse/Admin.

- *Getting Started with StorHouse/Performance Monitor*, publication number 900134. This book explains how to set up StorHouse/Performance Monitor, and how to create and work with reports.

Notational conventions

This book uses the following conventions for presenting examples and identifying special terms:

Table i: Notational conventions

Convention	Meaning
<i>Italics</i>	New terms, emphasized text, and document names
Bold	Control names for boxes, check boxes, lists, and options
Quotation marks	Chapter and appendix titles
UPPERCASE	StorHouse messages, Command Language commands, and SQL statements
▼	Procedures

Getting online help

The integrated online help system provides the information to help you use StorHouse/Admin and StorHouse/Control Center. While this book is designed to explain the basics to get you started, the online help is a complete reference that contains step-by-step procedures for using StorHouse/Control Center and StorHouse/Admin.



Introduction

StorHouse/Admin lets you administer multiple StorHouse systems concurrently through a Windows GUI from one or more network-connected PCs. Using pull-down menus, option lists, point-and-click controls, and intelligent prompting, StorHouse/Admin simplifies the tasks of storage management, database management, system operation, and security administration. StorHouse/Admin also makes it easy to schedule system activities and respond to operator messages.

StorHouse/Admin provides real-time monitoring of functions such as StorHouse server CPU usage, mounted volumes, device status, and request activity. You can get an immediate picture of StorHouse system status and identify the need for additional system resources or performance improvements.

StorHouse/Admin works within the StorHouse/Control Center framework. It also works within existing StorHouse security mechanisms, providing secure data access based on StorHouse privileges.



Should you need assistance, you can immediately access StorHouse/Admin's comprehensive task-based and context-sensitive help. With StorHouse/Admin, you also have immediate, online access to the complete StorHouse/SM and StorHouse/RM User Document Sets using Adobe® Acrobat® Reader.

Features and benefits

StorHouse/Admin offers all the features of StorHouse/SM, StorHouse/RM, and more. It provides ease of operation, enhanced system maintainability and reliability, and support for a variety of new tasks.

Ease of operation

StorHouse/Admin was designed to make StorHouse system administration and operation easier. StorHouse/Admin:

- Supports concurrent administration of multiple StorHouse systems
- Streamlines many StorHouse procedures that formerly required multiple console commands
- Eliminates the need for system operators to master the StorHouse Command Language
- Executes command interface and task operations in separate user sessions so they don't tie up your user session
- Lets you schedule StorHouse operations quickly and easily
- Detects operator message types and, when necessary, automatically formats a message response



- Reduces syntax errors by allowing users to select resource identifiers from displayed lists
- Reduces operational errors by displaying only those items that are relevant to a particular task.

Enhanced system maintainability and reliability

FileTek engineered StorHouse with system maintainability and reliability in mind. StorHouse/Admin continues to build on this robust architectural tradition. It provides:

- Configurable console interfaces to devices through serial ports so that FileTek customer support personnel can run diagnostic programs and provide predictive maintenance support
- Sophisticated client/server technology that can be configured for redundant, automatic fail-over.

Tasks you can perform in StorHouse/Admin

The following tables list the tasks you can perform in StorHouse/Admin grouped by functional area. The first table lists StorHouse/SM tasks. The second table lists the additional tasks you can perform if you have StorHouse/RM.



Table 1-1: StorHouse/SM tasks

Functional area	Task
Accounts	Changing a StorHouse account
	Changing an account password
	Cloning a StorHouse account
	Copying a StorHouse account
	Copying account defaults to the clipboard
	Creating a StorHouse account
	Disabling a StorHouse account
	Displaying information about a StorHouse account
	Enabling a StorHouse account
	Listing StorHouse accounts
	Printing a list of StorHouse accounts
	Removing a StorHouse account
	Temporarily changing default values for an account
Devices	Bringing up a StorHouse device
	Changing a device mode
	Displaying a devices diagram
	Displaying device statistics in graphical (pie chart) form
	Displaying information about a StorHouse device
	Monitoring device activity, including status and mode
	Taking down a StorHouse device
File access groups	Changing reserved space for a file access group
	Changing your account's default file access group
	Creating a file access group
	Listing file access groups
	Printing a list of file access groups
	Removing a file access group
File sets	Changing file set attributes
	Changing the size of the performance buffer file set
	Changing your account's default file set
	Cloning a file set
	Copying file set properties to the clipboard

**Table 1-1: StorHouse/SM tasks (continued)**

Functional area	Task
	Creating a Level L file set
	Creating additional Level F file sets
	Displaying information about a file set
	Displaying information about file set partitions
	Listing file sets in a volume set or in the system
	Printing a list of file sets
	Releasing free storage from a file set
Messages	Receiving a user message
	Responding to a user or operator message
	Sending a user message
	Viewing operator messages
Scheduled events	Displaying scheduled events
	Editing scheduled events
	Printing a list of scheduled events
	Removing scheduled events
	Scheduling events
Scripts	Executing scripts
	Logging script commands to a file
	Writing scripts
StorHouse/Admin logs	Logging Command Language command results to a file
	Logging diagnostics output to a file
	Logging script commands to a file
	Logging tasks results to a file
StorHouse Command Language commands	Logging Command Language command results to a file
	Submitting commands
StorHouse logs	Closing current logs and opening new logs
System activity	Canceling a system reservation
	Reserving the system
	Shutting down the system



Table 1-1: StorHouse/SM tasks (continued)

Functional area	Task
System and directory files	Checkpointing system files
	Extracting directory files
	Previewing directory files to restore
	Recovering system files
	Restoring directory files
System parameters	Displaying system parameter values
	Printing a list of system parameter values
	Setting system parameters
System statistics	Displaying system performance and usage statistics
	Holding the display for system statistics
	Monitoring system performance
	Monitoring user activity
	Resetting system statistics
User files	Archiving user files
	Backing up user files
	Changing user file attributes and values
	Copying a file name to the clipboard
	Copying file properties to the clipboard
	Copying files from a PC to StorHouse
	Copying files from StorHouse to a PC
	Deleting a user file
	Displaying information about a user file
	Duplexing user files
	Enabling a disabled file
	Listing all files in a file set, volume set, or on a volume
	Listing file extents
	Listing locked files
	Locking a user file
	Migrating files from one volume set to another
	Migrating files from the performance buffer

**Table 1-1: StorHouse/SM tasks (continued)**

Functional area	Task
	Moving files from a PC to StorHouse
	Moving files from StorHouse to a PC
	Printing a list of files
	Printing a list of locked files
	Purging older versions of user files
	Recovering user files
	Relinking the primary copy of a user file with a backup or archive copy
	Relocating a user file
	Removing user files
	Replicating user files
	Undeleting a user file
	Unlocking a user file
	Writing back new user file extents
	Writing back new user file extents
Volume sets	Adding a memo for a volume set
	Cataloging a volume set
	Changing a memo for a volume set
	Changing volume set attributes
	Changing your account's default volume set
	Cloning a volume set
	Copying volume set properties to the clipboard
	Creating a StorHouse volume set
	Displaying a memo for a volume set
	Displaying information about a volume set
	Erasing a volume set
	Exporting a volume set
	Importing a volume set
	Listing all volume sets in the system or with a specific memo
	Moving a volume set within a StorHouse system
	Printing a list of volume sets
	Releasing empty volumes from a volume set



Table 1-1: StorHouse/SM tasks (continued)

Functional area	Task
Volumes	Setting a volume set's HOLD attribute
	Uncataloging a volume set
	Adding a memo for a volume
	Changing a memo for a volume
	Changing volume attributes
	Copying a volume ID to the clipboard
	Copying volume properties to the clipboard
	Customizing volume labels
	Disabling a volume
	Displaying a memo for a volume
	Displaying information about a volume
	Enabling a volume
	Erasing a volume
	Exporting a volume
	Exporting all uncataloged volumes in a volume set
	Importing a volume
	Listing all volumes in the system, those associated with specific files, or those with a specific memo
	Migrating blank volumes into a StorHouse system
	Moving a volume within a StorHouse system
	Previewing volumes for recovery
	Printing a list of volumes
	Recovering volumes
	Reinitializing and reusing erasable, removable volumes
	Retiring a volume
	Returning expired volumes to the free pool
	Setting a volume's HOLD attribute
	Setting up automatic blank volume migration
	Uncataloging a volume
	Unwritelocking a volume
	Validating a volume

**Table 1-1: StorHouse/SM tasks (continued)**

Functional area	Task
	Writelocking a volume
Miscellaneous	Accessing the Help system
	Enabling the Diagnostics feature

If you have the StorHouse/RM product, you can also perform the following tasks:

Table 1-2: StorHouse/RM tasks

Functional area	Task
Accounts	Assigning a default tablespace to an account
	Changing an account password
	Changing account properties or privileges
	Creating a database administrator or general user account
	Displaying account properties or privileges
	Displaying an account's default user tablespace
	Listing database accounts
	Listing database component privileges for an account
	Listing database components owned by a StorHouse account
	Printing lists
	Removing a database account
Databases	Archiving/purging journals
	Assigning a default tablespace to a database
	Creating a database
	Cycling journals
	Displaying the size of user data in a database
	Enable journaling for an unjournaled database
	Listing accounts in a database
	Listing columns in a database
	Listing databases
	Listing indexes in a database



Table 1-2: StorHouse/RM tasks (continued)

Functional area	Task
	Listing PUBLIC component privileges in a database
	Listing synonyms in a database
	Listing system tables in a database
	Listing tablespaces in a database
	Listing user tables in a database
	Listing views in a database
	Performing database integrity tests
	Printing lists
	Purging journals
Indexes	Creating an index for a user table
	Displaying information about user table indexes
	Dropping an index
	Listing indexes in a database
	Listing indexes in a tablespace
	Listing indexes in a volume set
	Listing indexes on a system table
	Listing indexes on a user table
	Printing lists
ISQL	Executing a query with ISQL
	Exporting ISQL results
	Logging ISQL activity
	Printing ISQL results
	Creating an ISQL script
	Loading an ISQL script
Metadata	Backing up metadata
Privileges	Adding a StorHouse account (access or command) privilege
	Granting database component privileges
	Granting database privileges
	Listing database privileges and database component privileges

**Table 1-2: StorHouse/RM tasks (continued)**

Functional area	Task
	Listing StorHouse (account) access and command privileges
	Listing the database component privileges granted to PUBLIC
	Printing a list of StorHouse account (access and command) privileges
	Printing list of database and database component privileges
	Removing a StorHouse access or command privilege
	Revoking database component privileges
	Revoking database privileges
Segments	Archiving segments
	Backing up segments
	Changing segment files
	Copying segment and segment file names and properties to the clipboard
	Deleting invalid segments
	Deleting multiple invalid segments based on criteria
	Displaying information about a segment file
	Invalidating a segment
	Listing extents in a segment file
	Listing files in a segment
	Listing range values for a segment
	Listing segments in a user table
	Merging segments (creating control files with the MERGE statement for use by a FileTek data loader)
	Printing lists
	Relinking the primary copy of a segment file with a backup or archive copy
	Revalidating a segment
Synonyms	Creating a synonym (private or public)
	Displaying information about synonyms
	Dropping a synonym



Table 1-2: StorHouse/RM tasks (continued)

Functional area	Task
System tables	Listing synonyms in a database
	Printing a list of synonyms in a database
	Displaying information about a system table
	Exporting DDL
	Exporting the contents of a system table
	Granting component privileges for a system table
	Listing account privileges for a system table
	Listing columns in a system table
	Listing indexes on a system table
	Listing system tables in a database
	Printing lists
	Revoking component privileges for a system table
User tables	Cloning a user table
	Copying a user table in a database or from one database to another
	Creating a user table
	Displaying column definitions
	Displaying information about a user table
	Dropping a user table
	Exporting DDL (table or table and indexes)
	Granting component privileges for a user table
	Graphing user table size
	Listing account privileges for a user table
	Listing columns in a database
	Listing columns in a user table
	Listing indexes on a user table
	Listing segments in a user table
	Listing user tables in a tablespace
	Listing user tables in a volume set
	Listing user tables in a database
	Printing lists

**Table 1-2: StorHouse/RM tasks (continued)**

Functional area	Task
	Revoking component privileges for a user table
User tablespaces	Altering a user tablespace
	Assigning a default user tablespace to an account or a database
	Changing a default user tablespace for an account or a database
	Creating a user tablespace
	Displaying the default user tablespaces for an account
	Dropping a user tablespace
	Listing subspaces in a user tablespace
	Listing tables and indexes in a user tablespace
	Listing user tablespaces in a database
	Printing lists
Views	Altering a view
	Creating a view
	Displaying view text
	Dropping a view
	Granting component privileges for a view
	Listing account privileges for a view
	Listing views in a database
	Printing a list of views in a database
	Revoking component privileges for a view
Volume sets	Listing tables and indexes in a volume set
	Printing a list of tables and indexes in a volume set



Special considerations for selected StorHouse features

There are special considerations for:

- Selected StorHouse Command Language commands
- Selected ESQL statements
- Passwords for files and file access groups.

Selected Command Language commands

You must use the Interactive StorHouse Command Language (ISCL) working window to submit the SET USER /WILDCARD StorHouse Command Language command. For more information on the ISCL working window, see “Main window – ISCL” on page 2-19.

The following StorHouse Command Language commands are not supported in StorHouse/Admin:

- | | |
|---------------------|--------------------|
| ■ CATALOG DEVICE | ■ RECOVER DEVICE |
| ■ CREATE FILE | ■ RUN |
| ■ GET | ■ SERVICE |
| ■ INITIALIZE DEVICE | ■ SET DEVICE /SIZE |
| ■ PUT | |

For more information on specific Command Language commands, see the StorHouse Command Language online help. On the Help menu, click CC Contents and Index, and then click StorHouse Command Language.



Selected ESQL statements

The following embedded Structured Query Language (ESQL) statements are not supported in the StorHouse/Admin Interactive Structured Query Language (ISQL) window:

- | | |
|-------------------------|------------------|
| ■ BEGIN | ■ EXPLAIN PLAN |
| ■ CLOSE | ■ FETCH |
| ■ COMMIT WORK | ■ FREE LOCATOR |
| ■ CREATE EXPLAIN TABLES | ■ OPEN |
| ■ CONNECT | ■ PREPARE |
| ■ DECLARE | ■ ROLLBACK WORK |
| ■ DESCRIBE | ■ SELECT FOR |
| ■ DISCONNECT | ■ SELECT INTO |
| ■ DROP EXPLAIN TABLES | ■ FETCH |
| ■ END | ■ SET CONNECTION |
| ■ EXECUTE | ■ VALUES INTO |
| ■ EXECUTE IMMEDIATE | ■ WHENEVER |

Passwords for files and file access groups

Authorized users can create or modify file passwords or file access group passwords in the StorHouse/SM system. As StorHouse/SM system administrator, you can remove existing password-protected files or file access groups using StorHouse/Admin dialog boxes. Your SYSTEM account has all command and access privileges, so you can bypass file and file access group passwords.



Minimum StorHouse account privileges to use StorHouse/Admin

All StorHouse/Admin users (accounts) must have the StorHouse ANYGROUP, CONSOLE, and SHOW privileges.

If you have StorHouse/RM in addition to StorHouse/SM, you must have SQLEXECUTE privilege to display the Databases folder in the StorHouse Resources working window folder list. Any accounts set up for StorHouse/RM must also have a password.

C H A P T E R 2



Tour

This chapter takes you on a tour of StorHouse/Admin. It describes the windows you'll see and the menus and tool bars you'll use to navigate the system. It also explains how to start and close StorHouse/Control Center and StorHouse/Admin.



Starting the program

Once you have installed StorHouse/Admin, you can start and run the module within StorHouse/Control Center.

▼ To start StorHouse/Admin

1. Double-click the StorHouse/Control Center desktop shortcut to start StorHouse/Control Center.

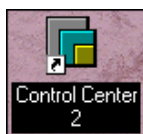


Figure 2-1: StorHouse/Control Center desktop shortcut

You will see the StorHouse/Control Center splash window (see page 2-3). The selection bar will contain a shortcut called StorHouse/Admin. If you have installed other StorHouse/Control Center client modules on this PC (including other StorHouse/Admin modules), the selection bar will contain those shortcuts, too.

2. Click the StorHouse/Admin shortcut in the selection bar.



Figure 2-2: StorHouse/Admin shortcut

You will see the StorHouse/Admin Login dialog box (see page 2-6).



The StorHouse/Control Center splash window

When you start the StorHouse/Control Center program, the first window you see is the StorHouse/Control Center splash window.



Figure 2-3: StorHouse/Control Center splash window

The following sections describe the components of the StorHouse/Control Center splash window.



Framework menu

The File, Window, and Help menus are part of the StorHouse/Control Center framework and are available in all StorHouse/Control Center modules. Any additional menu selections are specific to a StorHouse/Control Center module.

Selection bar

The *selection bar* contains three groups of shortcuts: CC Modules, Online Docs, and Applications. You can add and delete your own shortcuts to and from each group on the selection bar. You can also hide or show the selection bar by clicking the Show/Hide Selection Bar button. See the StorHouse/Control Center online help for more information about working with the selection bar.

CC modules

Click this tab to display the shortcuts for installed StorHouse/Control Center client modules and their data sources. A *data source* is the combination of a specific StorHouse system attached to a specific StorHouse/Control Center server. You will see a StorHouse/Admin shortcut for your current data source after you install StorHouse/Admin.

Online docs

Click this tab to list any online documents you can launch from StorHouse/Control Center. You can add a shortcut for any online document you want to open here. For instance, you could open a document saved in the Adobe Portable Document Format (PDF) format with Adobe Acrobat Reader or a word processor document with Microsoft Word.



Applications

Click this tab to list programs, such as spreadsheets, you can launch from StorHouse/Control Center. You can create shortcuts for any of your available applications.

Active module pane

The *active module pane* is the area where you use StorHouse/Admin or any other StorHouse/Control Center module. Whatever displays in the active module pane at a given point in time is called a *working window*.

Working window list

The *working window list* contains a scroll list of all active working windows. You can quickly navigate from one window to the next by scrolling up and down the working window list. See “StorHouse/Admin working windows” on page 2-10 for a list of all the working windows in StorHouse/Admin.



StorHouse/Admin Login dialog box

Click the StorHouse/Admin shortcut on the selection bar to display the StorHouse/Admin Login dialog box.



Figure 2-4: Login dialog box

- ▼ To log in to StorHouse/Admin
 1. Type your StorHouse account ID.
 2. Type your account password.
 3. Click Login.



StorHouse/Admin menu, tool, and status bars

Before learning about the StorHouse/Admin working windows, it is important to understand the navigational and informational components that are common to all the working windows:

- Menu bar
- Tool bar
- Status bar.

Menu bar

The StorHouse/Admin menu bar looks like this:

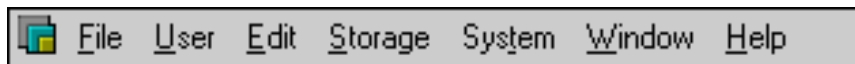


Figure 2-5: StorHouse/Admin menu bar

The pull-down menu items contain the following functions.

Table 2-1: Menu functions

Menu	Choose this	To do this
File	Configuration Wizard	Create a shortcut for a StorHouse/Control Center module, online document, or an application
	Data Source Manager	Define a StorHouse system and StorHouse/Control Center server to StorHouse/Control Center
	Selection Bar	Hide or show the selection bar
	Exit	Leave StorHouse/Admin and StorHouse/Control Center



Table 2-1: Menu functions (continued)

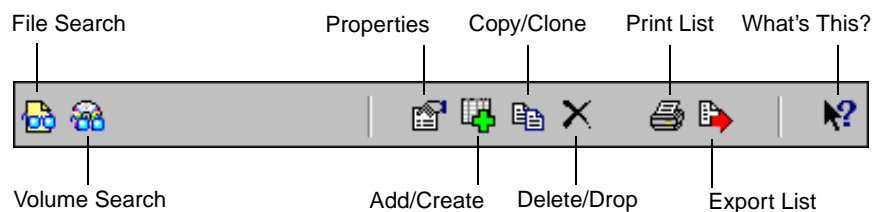
Menu	Choose this	To do this
User	Session Defaults	Set current defaults for this StorHouse account's session
	Preferences	Set up or change user preferences for chart thresholds, operations, directories, console window buffer size, and server response timeout
Edit	Add/Create	Create or add a StorHouse resource
	Copy/Clone	Copy a StorHouse resource
	Delete/Drop	Delete or drop a StorHouse resource
Storage	Directory	Extract or restore StorHouse directory information
	File	Manage StorHouse files
	Volume	Manage StorHouse volumes
System	Configure	View or change system parameter settings
	ISCL	Submit StorHouse Command Language commands
	ISQL	Submit SQL statements
	New Log	Create StorHouse administration and/or user logs
	Schedule	View, schedule, print, and remove events
	Script	Write and run scripts
Window	Tile Vertical	Arrange open modules in smaller sizes to fit on top of each other
	Tile Horizontal	Arrange open modules in smaller sizes to fit next to each other
	Cascade	Overlap modules so that each title bar is visible
	Close	Close the current open module
	Close All	Close all open modules

**Table 2-1: Menu functions (continued)**

Menu	Choose this	To do this
Help	StorHouse/Admin	Get StorHouse media/recording types, software version number, and copyright data
	CC Contents and Index	Get help for: <ul style="list-style-type: none"> ■ StorHouse/Control Center framework ■ StorHouse/Admin ■ StorHouse Command Language ■ StorHouse/Performance Monitor ■ PM File Copy ■ CCAdmin ■ Database administration ■ StorHouse SQL
	Using Help	Learn how to use Windows online help
	About	Get StorHouse/Control Center software version number and copyright data

Tool bar

The StorHouse/Admin tool bar provides quick access to functions and resources that you can also access with the menu bar. Simply click a tool bar button to use a function.

**Figure 2-6: StorHouse/Admin tool bar**



Status bar

The StorHouse/Admin status bar contains information about your login account defaults, the StorHouse release, and the date and time. Here is a sample status bar:



```
Account: SQLDBA User: ? Default: Group=STH VSET=SYSTEM FSET=SERVICE v5.2/30 5/29/01 4:14:55 PM
```

Figure 2-7: StorHouse/Admin status bar

StorHouse/Admin working windows

There are four types of working windows in StorHouse/Admin:

Table 2-1: StorHouse/Admin working windows

Window	Lets you
Main: StorHouse Resources	View and manage StorHouse resources
StorHouse Status	<ul style="list-style-type: none">■ View and respond to operator request messages■ View device modes and resource usage statistics in a grid or pie chart format■ View statistics on hardware devices and current users
ISCL	Submit all StorHouse Command Language commands on a command line
ISQL	Submit all StorHouse SQL statements on a command line
Task	View command processing statuses and messages (successful completion and error messages)
Script	View script processing statuses and messages (successful completion and error messages)
Diagnostics	View the StorHouse Command Language commands and SQL statements issued by StorHouse/Admin



Main window – StorHouse Resources

The first working window that opens after you log in to StorHouse/Admin is the StorHouse Resources working window. A StorHouse *resource* is an entity used to group or access data in StorHouse, such as a volume set or device. All resources except devices must be defined (created) before they can be used. The StorHouse Resources working window looks like this:

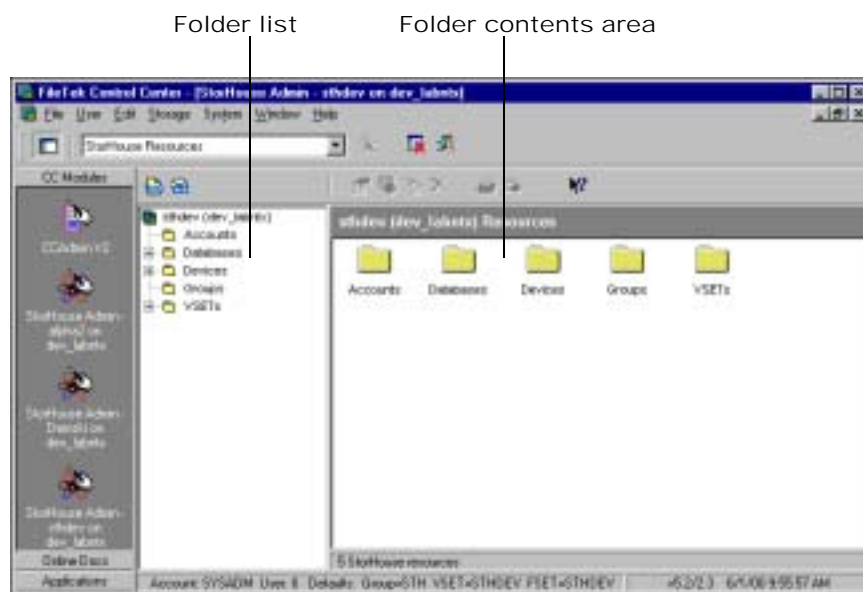


Figure 2-8: StorHouse Resources working window

- ▼ To open the StorHouse Resources working window from another working window

Click StorHouse Resources in the working window list. The StorHouse Resources window is always accessible. You cannot close it.



Folder list

The folder list includes folders that group the following StorHouse resources:

- Accounts
- Databases (this folder displays only if you have StorHouse/RM)
- Devices
- Groups
- Volume sets.

Expand individual folders to see subfolders and the actual StorHouse resource names. For example, when you expand the VSETs folder and then expand the folder for a specific volume set, you see the file sets and volumes that reside in that volume set. You also see the files that reside in each file set.



Figure 2-9: Sample expanded folder



Folder contents area

When you log in to StorHouse/Admin, the folder contents area includes a folder for each of the resources shown in the folder list. Open (double-click) any folder to see its contents. The contents of each folder is titled with a unique name, such as Accounts.

Main window – StorHouse Status

The StorHouse Status working window contains three separate components:

- Operator messages area, where you can view and respond to operator request messages
- Device status display, where you can view device statuses and modes, and resource usage statistics in a grid or pie chart format
- System performance and usage statistics chart, where you can display statistics from a number of categories, such as hardware devices and current users.



The StorHouse Status working window looks like this:

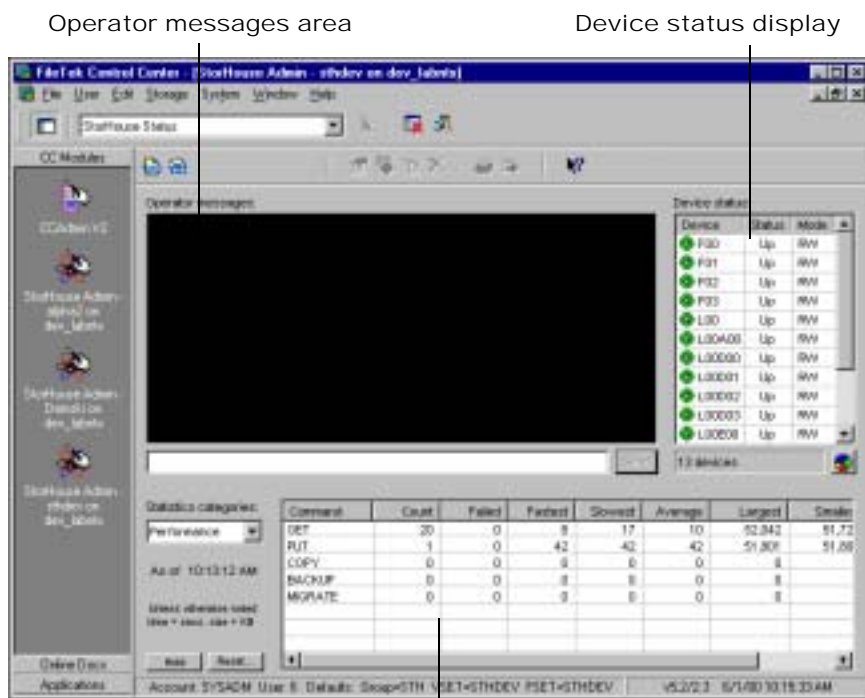


Figure 2-10: StorHouse Status working window

- ▼ To open the StorHouse Status working window

Click StorHouse Status in the working window list. The StorHouse Status window is always accessible. You cannot close it.

Operator messages area

The operator messages area of the StorHouse Status working window is where you view and respond to operator messages. If your workstation is configured as an operator station (see “Setting StorHouse/Admin preferences” on page 3-4), your StorHouse Status working window



displays a white operator message response bar and a Send button under the black box, like this:



Figure 2-11: Operator messages area

The Send button is disabled until there is an operator message to display. If your workstation is not configured as an operator station, your StorHouse Status working window shows only the message display area.

StorHouse displays operator messages in the message display area. You might see any of four message types:

- E (Error)
- F (Fatal error)
- I (Information)
- W (Warning).

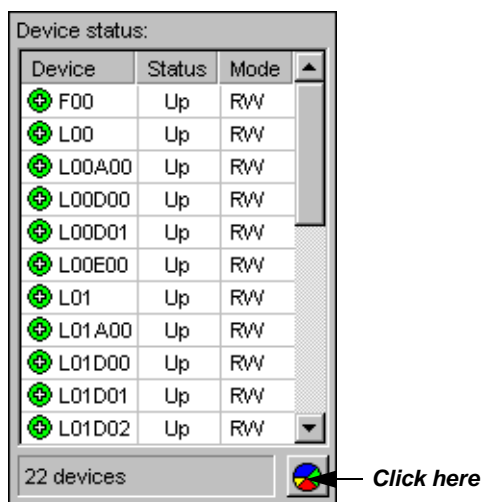
You can right-click inside the message display area to perform functions such as clearing messages, copying messages to the clipboard, getting messages, and printing messages.



You do not need to respond to some messages, such as information (I) messages. Messages that need a response contain the word “Reply.” See “Responding to an operator message” on page 5-30 for instructions on responding to operator messages.

Device status display

The device status display in the StorHouse Status working window is where you view the status of hardware devices, either in grid or pie chart format. The default display is in grid format:



Device status:

Device	Status	Mode
+ F00	Up	RW
+ L00	Up	RW
+ L00A00	Up	RW
+ L00D00	Up	RW
+ L00D01	Up	RW
+ L00E00	Up	RW
+ L01	Up	RW
+ L01A00	Up	RW
+ L01D00	Up	RW
+ L01D01	Up	RW
+ L01D02	Up	RW

22 devices



 Click here

Figure 2-12: Device status display

The pie chart button at the bottom of this area () toggles among three views:



- Device status (grid)
- Device statistics (pie chart)
- Expanded operator messages area.

The button changes design each time you press it to show you the next view. The first time you click the pie chart button, the device statistics pie chart appears:

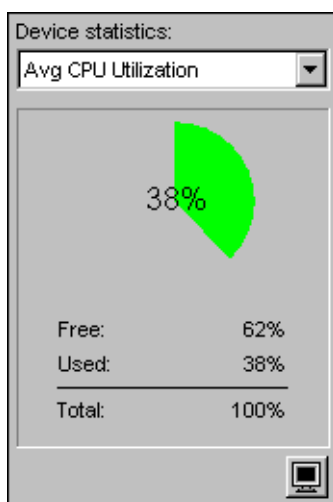



Figure 2-13: Device statistics display

The list above the pie chart lets you choose among the following statistics to display in pie chart format:

- Average CPU utilization
- Library slots
- Library space (StorHouse Release 5.1 and above)
- Magnetic disk space
- Volume location
- Volume usage
- Drive usage (StorHouse Release 5.1 and above).



If you click the button a second time () , the message area expands to the entire width of the screen. In this view, neither the device activity grid nor the device statistics pie chart displays.

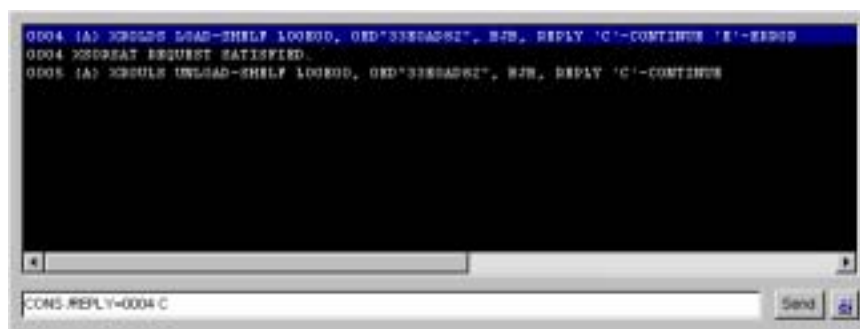

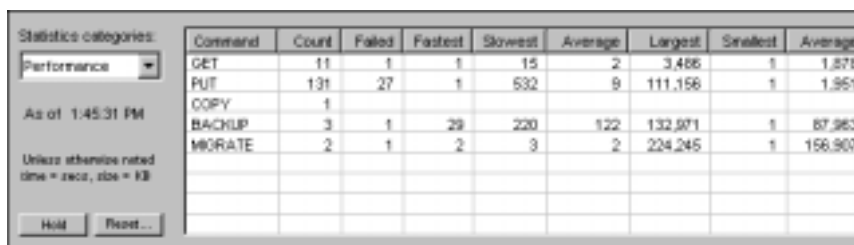


Figure 2-14: Expanded operator messages area

By clicking the button a third time () , you return to the device activity grid.

System performance and usage statistics

The system performance and usage statistics component of the StorHouse Status working window is where you display statistics from a number of categories, such as hardware devices and current users.



Statistics categories:
Performance

As of 1:45:31 PM
Unless otherwise noted
time = sec, size = KB

Command	Count	Failed	Fastest	Slowest	Average	Largest	Smallest	Average
GET	11	1	1	15	2	3,486	1	1,878
PUT	131	27	1	532	9	111,156	1	1,951
COPY	1							
BACKUP	3	1	29	220	122	132,971	1	87,963
MIGRATE	2	1	2	3	2	224,245	1	156,907

Hold Reset...

Figure 2-15: System performance and usage statistics



The **Statistics categories** list above the grid lets you display any of the following statistics:

- Current users
- Drives (StorHouse Release 5.1 and above)
- Free pool
- Libraries (StorHouse Release 5.1 and above)
- Network
- Performance
- Usage.

Resetting system statistics

StorHouse begins compiling statistics when it is started and continues collecting them until it is shut down. You must have SYSTEM privilege to display the Reset button on the StorHouse Status working window. When you click Reset for a specific type of statistics, you can reset those statistics back to zero. You can reset all types of statistics except network statistics.

Holding system statistics

StorHouse continuously collects statistics and displays them in user-specified intervals (the default is one minute, which you can change in CCAdmin). You can temporarily freeze the display of user-selected values on the screen by selecting a statistics category and clicking Hold. StorHouse continues to collect new statistics during the holding period, but doesn't display the updated statistics until you release the hold by pressing Hold a second time (it is a toggle button).

Main window – ISCL

The Interactive StorHouse Command Language (ISCL) working window lets you submit all non-interactive StorHouse Command Language commands on a command line. When you select this working window,



you open a separate StorHouse user session from your StorHouse/Admin login session. The ISCL working window looks like this:

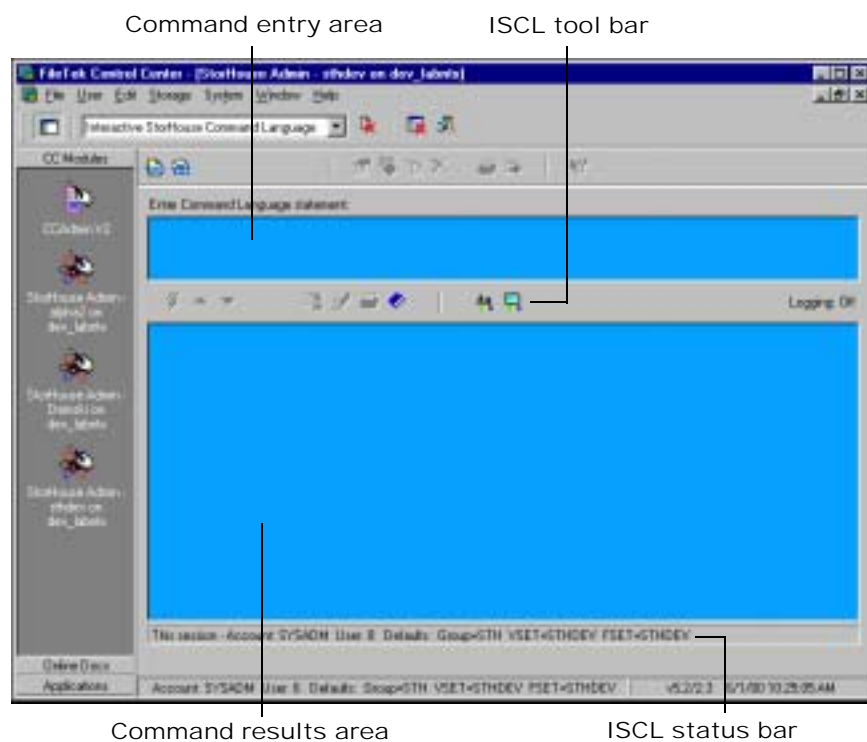


Figure 2-16: ISCL working window

- ▼ To open the ISCL working window

From the System menu, click ISCL.

Once you have opened the ISCL working window, you can return to it from any other working window by clicking it in the working window list.



- ▼ To close the ISCL working window

Click this button:



Figure 2-17: Closing the ISCL working window

Once you have closed the ISCL working window, it no longer appears as a selection in the working window list.

Tool bar

The ISCL tool bar provides quick access to command functions. Simply click a tool bar button to use the function.

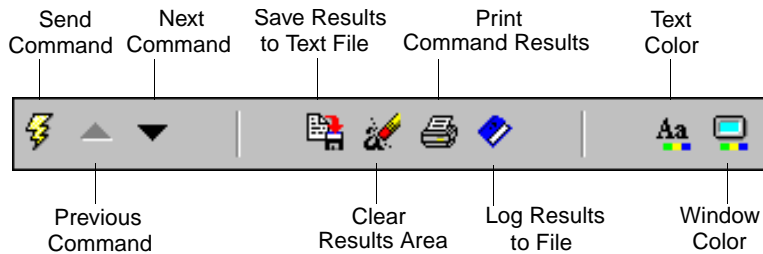


Figure 2-18: ISCL tool bar

Status bar

The ISCL working window has its own separate status bar, which displays the login account defaults for this session.

This session - Account: SYSADM User: 6 Defaults: Group=STH VSET=STHDEV FSET=STH

Figure 2-19: ISCL status bar



Main window – ISQL

The Interactive Structured Query Language (ISQL) working window lets you submit StorHouse SQL statements on a command line. When you select this working window, you open a separate StorHouse user session from your StorHouse/Admin login session. The ISQL working window looks like this:

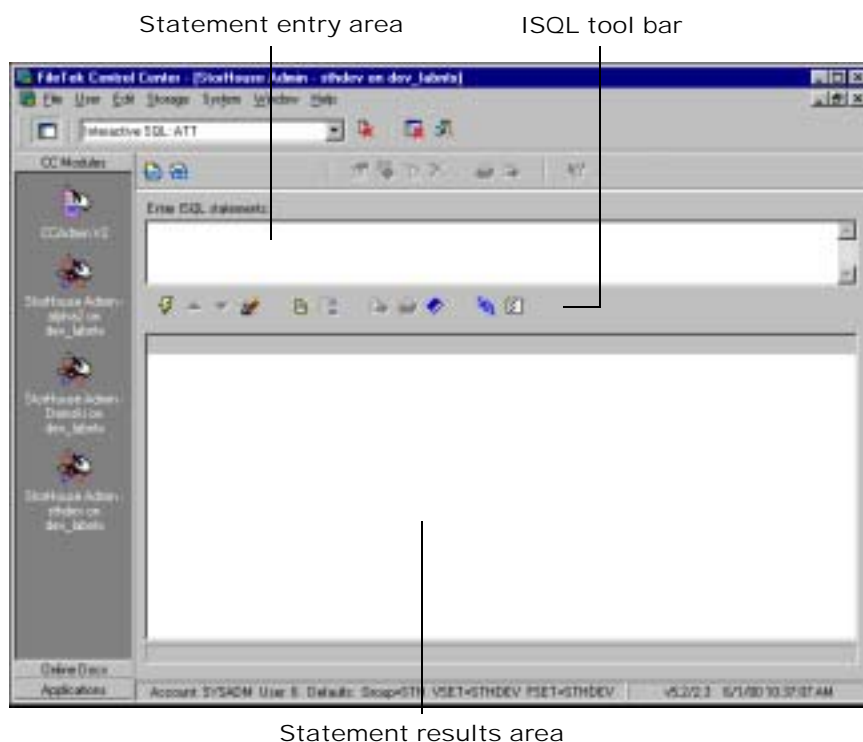


Figure 2-20: ISQL working window

- ▼ To open the ISQL working window
1. In the StorHouse Resources folder list, click the Databases folder.
 2. In the Databases list, click a database to connect to it.



3. From the System menu, click ISQL.

Once you have opened the ISQL working window, you can return to it from any other working window by clicking it in the working window list.

- ▼ To close the ISQL working window

Click this button:

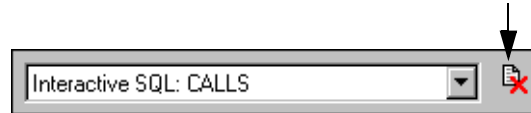


Figure 2-21: Closing the ISQL working window

Once you have closed the ISQL working window, it no longer appears as a selection in the working window list.

Tool bar

The ISQL tool bar provides quick access to command functions. Simply click a tool bar button to use the function.

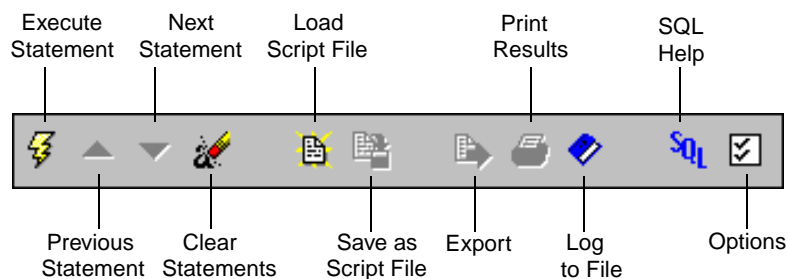


Figure 2-22: ISQL tool bar



When you click Options, the following box appears:

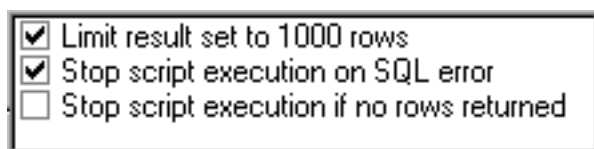


Figure 2-23: Options in ISQL tool bar

The check boxes let you optionally limit the result set to 1000 rows, stop script execution if you receive an SQL error, and stop script execution if StorHouse returns no rows. (If you deselect the **Limit result set to 1000 rows** check box, StorHouse returns a maximum result set of 5000.)

To close the Options function, click the button again (it is a toggle button).

Task working windows

A StorHouse/Admin task working window displays StorHouse command processing statuses and messages generated by certain StorHouse/Admin tasks (for example, Relocate). StorHouse/Admin executes these tasks in a separate user session to prevent operations like relocating a file from tying up your user session. Task windows display in the working window list with the prefix **Task**. StorHouse/Admin opens task windows automatically when you perform certain StorHouse/Admin functions.



In the following task window example, the user submitted the Relocate function.

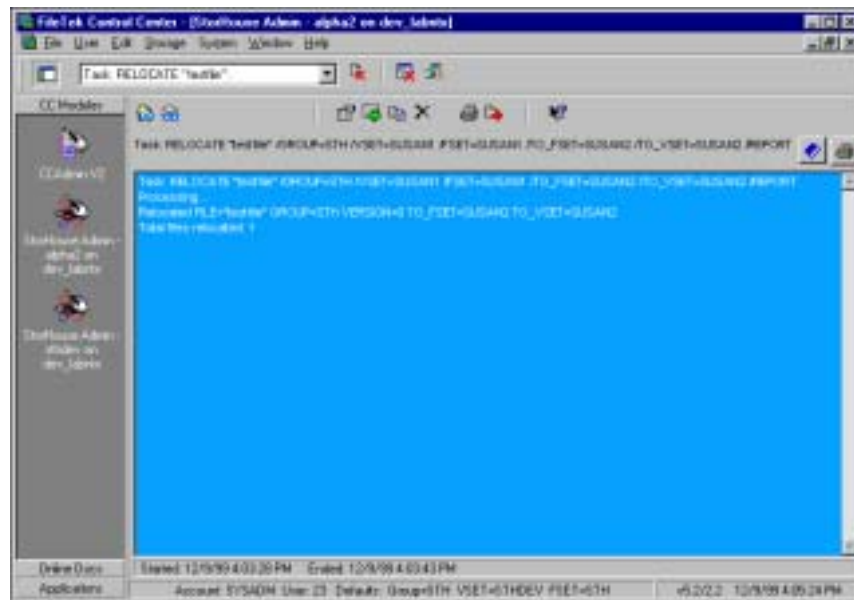


Figure 2-24: Sample task window

Once StorHouse/Admin has opened a task window, you can return to it from any other working window by clicking it in the working window list.

- ▼ To close a task working window

Click this button:

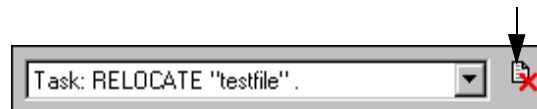


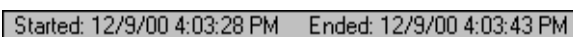
Figure 2-25: Closing a task working window



Once you have closed a task working window, it no longer appears as a selection in the working window list.

Status bar

Task windows have their own separate status bar, which displays the start and end time of the task StorHouse/Admin submitted to StorHouse.



Started: 12/9/00 4:03:28 PM Ended: 12/9/00 4:03:43 PM

Figure 2-26: Task window status bar

Script working windows

A StorHouse/Admin task working window displays script processing statuses and messages. StorHouse/Admin executes scripts in a separate user session to prevent script operations from tying up your user session. Script windows display in the working window list with the prefix **Script**. StorHouse/Admin opens script windows automatically when you perform script functions.



In the following script window example, the user submitted the SHOW TIME command in a script.

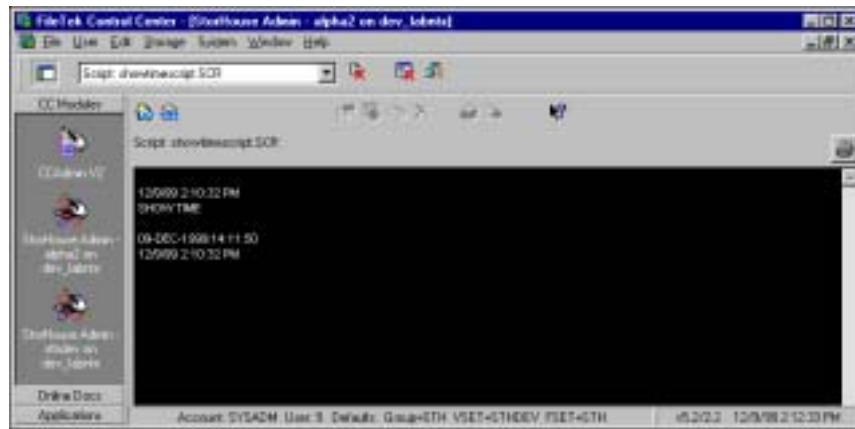


Figure 2-27: Sample script window

Once StorHouse/Admin has opened a script window, you can return to it from any other working window by clicking it in the working window list.

- ▼ To close a script working window

Click this button:

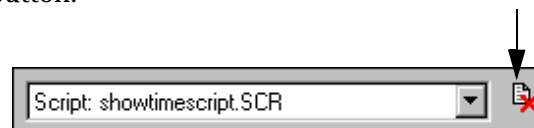


Figure 2-28: Closing a script working window

Once you have closed a script working window, it no longer appears as a selection in the working window list.



The Diagnostics working window displays StorHouse Command Language commands and error messages, and SQL statements and return codes issued in the background by StorHouse/Admin as a result of your dialog box selections. The Diagnostics working window is not activated at installation. If necessary, you can activate it or deactivate it at any time. (See “Setting StorHouse/Admin preferences” on page 3-4.)



Assuming you have activated the Diagnostics feature, you can return to the Diagnostics working window from any other working window by clicking Diagnostics in the working window list. If you have activated Diagnostics, the window is always accessible. You cannot close it. If you deactivate the Diagnostics feature, the window no longer appears in the working window list.



Tool bar

The Diagnostics tool bar provides quick access to diagnostics functions. Simply click a tool bar button to use the function.

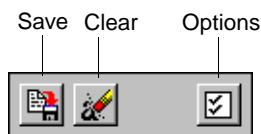


Figure 2-30: Diagnostics tool bar



The Save function lets you save your diagnostics output to a text file anywhere you specify on your network. The Clear function lets you clear the Diagnostics working window at any time.

When you click Options, the following box appears:

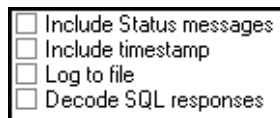


Figure 2-31: Options in Diagnostics tool bar

The check boxes let you optionally include status messages and/or a timestamp in your diagnostics output, log diagnostics results to a file, and/or decode SQL responses. Simply select one or more check boxes to activate these functions. For information on logging diagnostics results to a file, see “Diagnostics log” on page 3-8.

To close the Options function, click the Options button again (it is a toggle button).



Exiting the system

There are several ways you can close StorHouse/Admin, StorHouse/Control Center, or both from any of the StorHouse/Admin working windows.

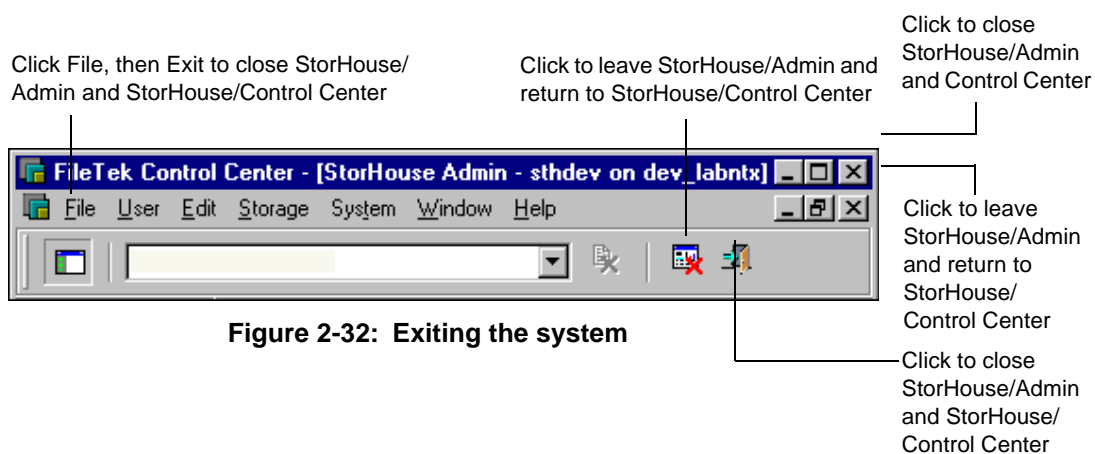


Figure 2-32: Exiting the system

C H A P T E R 3



Setting up StorHouse/Admin

You may need to perform some or all of the following tasks to set up and administer StorHouse/Admin:

- Configure a data source
- Create a shortcut for a data source
- Set StorHouse/Admin preferences, including:
 - Enable an operator station
 - Activate the Diagnostics feature
- Set up StorHouse/Admin logging



Configuring a data source

StorHouse/Admin automatically includes one default shortcut to the initial data source at installation. However, if you add another StorHouse system after installation and you want to manage it from StorHouse/Admin, you will have to configure a data source for the new system and create a shortcut to the new data source. All shortcuts display in the selection bar on the StorHouse/Control Center window.

▼ To configure a data source

1. On the File menu, click Data Source Manager.
2. In the Data Source Manager dialog box, click New.
3. In the **Data source** box, type a name for your data source. This should be a descriptive name that will help you identify the data source.
4. In the **StorHouse name** box, type the name of your StorHouse system. This is the StorHouse system that StorHouse/Admin will use when you launch it from this shortcut. This must be a StorHouse system name defined in CCAdmin.
5. In the **Attached to CC server** box, type the DNS name of the Windows NT or 2000 machine where the StorHouse/Control Center server is running. This is the location of the StorHouse/Control Center server that StorHouse/Admin will use to communicate with the StorHouse system you selected in the previous step.
6. In the **Uses TCP/IP port** box, type 8020.
7. Click OK.



Creating a shortcut for a data source

Once you have configured a data source, you must create a shortcut for it.

▼ To create a shortcut

1. On the File menu, click Configuration Wizard.
2. In the CC Client Configuration Wizard dialog box, click the type of shortcut you want to create.
3. Click Next.
4. In the **CC module** list, click StorHouse/Admin.
5. In the **CC server** list, click a server or click New to create a server.

If you click New, the Define CC Server dialog box appears. Type a name for the server in the **CC server name** box and accept 8020 in the **TCP/IP port** box. (Note that the CC server name must already be defined in the DNS or HOSTS file. For more information on these files, see *Getting Started with StorHouse/Control Center*.) Then, click OK.

6. In the **StorHouse system** list, click a StorHouse system.
7. Click Next.
8. In the **Shortcut name** box, type the name of the shortcut or accept the default.

This name appears below the shortcut on the selection bar to help you identify the purpose of the shortcut.



9. Click Finish.

Setting StorHouse/Admin preferences

There are preferences you should set for each StorHouse/Admin data source. Preferences determine your default operating environment when connected to that data source.

- ▼ To set up your preferences

On the User menu, click Preferences.

General tab

1. In the Preferences dialog box under the General tab, select the **Confirm before making deletions** check box if you want StorHouse to ask you to confirm delete operations.
2. Select the **This PC is the operator station** check box if your workstation is the StorHouse operator station.

Note: You must select this box if you want to respond to operator messages on the StorHouse Status working window. If your workstation is enabled as an operator station, your StorHouse Status working window displays a white operator message response bar and a Send button under the black box. If your workstation is not configured as an operator station, your StorHouse Status working window shows only the message display area.

3. In the Chart thresholds area, click each resource in the Resource list and set the caution (yellow) and warning (red) usage limits. When a resource reaches one of these limits, the pie chart on the StorHouse



Status working window will change to yellow or red to alert you that the resource is approaching a caution or warning limit.





Directories tab

1. Click the Directories tab.
2. Type the name of the default directory on the destination PC (your PC or any PC on the network) where you want to transfer files from StorHouse in the **Default destination directory for StorHouse files being copied or moved to the PC** box.

Click the Browse button () to browse your network for a directory. Click the Make Others Match button () to enter the same directory for logs and scripts.

3. Type the directory on your PC or network where you want to write StorHouse/Admin logs in the **Directory where logs will be written** box. (For information on StorHouse/Admin logs, see “Setting up StorHouse/Admin logging” on page 3-7.)

Click the Browse button () to browse your network for a directory.

4. Type the directory on your PC or network where you want to write scripts in the **Directory where scripts will be written** box.

Click the Browse button () to browse your network for a directory.

Advanced tab


1. Click the Advanced tab.
2. Click the maximum buffer size for your console window in the **Maximum buffer size** box, or type your own value.

The *maximum buffer size* is the maximum number of lines that appear in the scrollable section of the console window.



3. Click the number of seconds you want to wait for a response from StorHouse in the **Time in seconds to wait for a response from the Control Center server before continuing** box, or type your own value.

If the specified time elapses, StorHouse aborts the operation and processes the next one.

4. Select the **Enabled** check box if you want to enable the StorHouse Diagnostics feature. 

Setting up StorHouse/Admin logging

There are five types of StorHouse/Admin information that you can optionally log to separate files:

- Command Language command results
- SQL statement results
- Diagnostics output
- Task results
- Script command results.



StorHouse/Admin writes the logs to the default directory you specified in the Preferences dialog box, unless you specify another directory for a specific log operation.



Command Language log

You can log the results of StorHouse Command Language commands to a file.

▼ To log Command Language command results to a file

1. On the System menu, click ISCL.
2. On the ISCL working window, click  log the results to a file. Click the button again to stop logging command results to a file.
3. Type the Command Language statement in the **Enter Command Language statement** box.
4. Press .


The command results display in the lower box.

SQL statement log

You can log the results of any SQL statement to a file. You can do this from the ISQL working window.



▼ To log SQL statements to a file


1. On the ISQL working window, click .
2. In the Windows Log To File dialog box, type the name of the log file and select its destination.
3. Click Open.



Diagnostics log

You can log the output of the Diagnostics working window to a file if you activated the Diagnostics feature (see “Setting StorHouse/Admin preferences” on page 3-4). StorHouse writes this file to the default directory that you specified in the User Preferences dialog box.


- ▼ To log diagnostics output to a file

On the Diagnostics working window, click . Then, select the **Log to file** check box. (The log file path name may vary, depending on the directory you specify in the Preferences dialog box. The default is c:\SHADiagsA.log.) To close the check box list, click the button again.

Task log

You can log the results of any StorHouse/Admin task to a file (except the Load Blank Volume task). When you initiate a function that generates a Task window, StorHouse notifies you with a message. You can start the logging function directly from the Task window.

- ▼ To log task results to a file

1. On the selected Task working window, click .
2. In the Windows Log To File dialog box, type the name of the log file and select its destination.
3. Click Open.



Script command log

You can log all or part of the output of your StorHouse/Admin scripts to a file. You can start and stop logging anywhere in a script by including the “Start logging” and “Stop logging” script commands.

▼ To log script commands to a file

1. On the System menu, point to Script and then click Maker.
2. In the Script Maker dialog box, drag the script command **[Start Logging c:\scrlog.log]** from the lower box to the upper box to the place(s) in your script where you want to start logging. To stop logging, drag the script command **[Stop Logging]** to the place(s) in your script where you want to stop logging.

Note: The log file path name may vary, depending on the directory you specify in the Preferences dialog box.

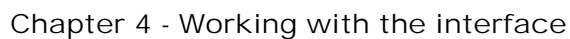
3. Click the Close Script button to save the current script.
4. In the Confirm box, click OK.
5. In the Windows Save As dialog box, assign a name and a location to the script.
6. Click Save.
7. In the Script Maker dialog box, click Done.



Working with the interface

This chapter explains how to work with the folder list and the folder contents area on the StorHouse Resources working window. It also describes the following tasks that you can perform on selected resources that display in this working window:

- Sort columns
- Filter lists
- Export lists
- Create reports from lists
- Print reports
- Load saved reports



Folder list Folder contents area

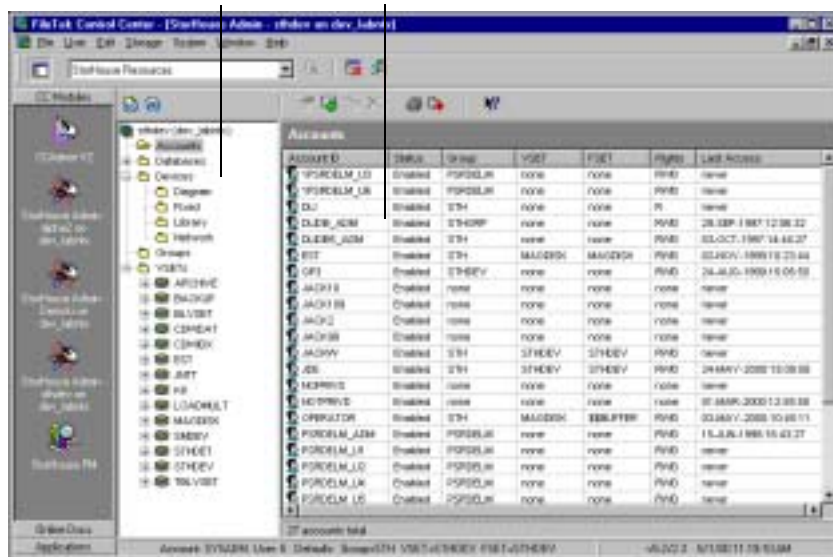


Figure 4-1: Folder list and folder contents area

The following sections describe the features of these two areas.

Working with the folder list

The folder list contains folders for different StorHouse resources. If you have StorHouse/SM and StorHouse/RM, you see the following folders:

- Accounts
- Databases
- Devices
- Groups
- VSETs



If you have only StorHouse/SM, the Databases folder does not display.

You can expand and collapse a folder to see subfolders and other resources. Click the plus sign (+) next to a folder to expand it. Click the minus sign (-) next to a folder to collapse it.

When you click a folder in the folder list, a list of that folder's contents displays in the folder contents area.

Working with the folder contents area

When you log in to StorHouse/Admin, the folder contents area initially displays a folder symbol for every item in the folder list (see Figure 2-8 on page 2-11). By double-clicking a folder symbol in the folder contents area, you can display the contents of that folder. This action produces the same results as clicking the selected folder in the folder list. Figure 4-1 shows the contents of the Accounts folder in the folder contents area. To display the folder symbols in the folder contents area anytime, click on the data source name above the Accounts folder (such as sthdev in Figure 4-1).

Sorting columns

StorHouse resource lists display in columns in the folder contents area and in some dialog boxes, typically in ascending order. You can sort resource lists in ascending or descending order. To sort the contents of a column, simply click the column heading until the order that you want displays.



Working with lists

Resource lists display in the folder contents area. Every list of resources has a unique title. For example, if you click the Accounts folder in the folder list, the list titled Accounts displays in the folder contents area. If you expand the Databases folder and click the User Tables folder in a particular database, the list titled User Tables displays. You can resize the columns in lists at any time.

You can right-click anywhere in a resource list to display a task menu. The following sections describe selected tasks that you can perform on resource lists.

Filtering lists

You can view or print a partial resource list by using the Filter List function. For example, rather than listing all volume sets, you might want to list just the volume sets whose names begin with the letter A.

The following table shows the resources you can filter and the Filter List dialog box fields you can use:

Table 4-1: Filter lists

Resource	Filters on
Account	ID
Column in a database	Name (case-sensitive) or table type
File set	Name in resident volume set or all volume sets
Group	Name
Segment	Load ID or tag, date loaded, and/or status
Synonym	Name (case-sensitive)
User or system table	Name (case-sensitive)

**Table 4-1: Filter lists (continued)**

Resource	Filters on
View	Name (case-sensitive)
Volume set	Name, directory, hold status, library, media, memo
Volume	Name

Here is a sample task that explains how to produce a filtered list of volume sets.

- ▼ To view all volume sets in the ARCHIVE directory
 1. In the StorHouse Resources working window folder list, click the VSETs folder.
 2. Right-click the Volume Sets list and then click Filter List.
 3. In the Filter List dialog box, accept the * in the **Include names like** box.
 4. In the **Directory** box, click Archive.
 5. Click OK.


The results set displays in the Volume Sets list.

Exporting lists

You can export any resource list to a file. This procedure assumes the list you want to export already displays in the folder contents area.



▼ To export a list

1. Click .
2. In the Export List To dialog box, select a destination and assign a name for the saved file.
3. Click Save.

Creating reports from lists

You can create a report from any list you view in the folder contents area. This procedure assumes the list you want to print already displays in the folder contents area.

▼ To create a report from a list

Click . The list report displays in a StorHouse preview page.

The preview page contains a unique tool bar, which lets you print, save, and export the report. The following figure explains the tool bar buttons.

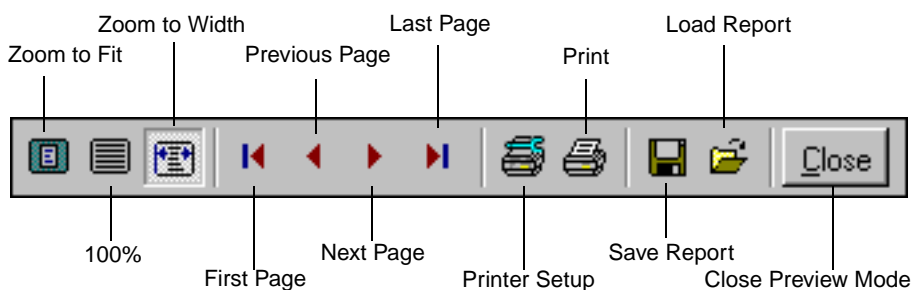


Figure 4-2: Report tool bar



Zooming a report

The first three buttons allow you to zoom in or out on a report that you are previewing. The Zoom to fit and Zoom to width buttons zoom to a preset height or width, depending on the size of your monitor. The button labeled 100% displays the report in a 1:1 ratio.

Displaying selected report pages

The next four buttons allow you to scroll through pages of your report. The button names describe the scroll destinations.

Printing a report


You can print a report for any list of StorHouse resources (except devices). This procedure assumes the report list you want to print already displays in the folder contents area.

Note: To specify printer settings in Windows, click .

▼ To print a report

1. Click .

The report displays so that you can preview it, if necessary.



2. In the StorHouse preview page, click .
3. Click Close.

Saving a report

You can save any list as a report. This procedure assumes the list you want to save already displays in the folder contents area.





▼ To save a list as a report

1. Click .
2. In the StorHouse preview page, click .
3. In the Save Report dialog box, specify the report name and click Save.
4. Click Close.

Loading a saved report

You can load a report that you have saved.

▼ To load a saved report

1. Click .
2. In the StorHouse preview page, click .
3. In the Load Report dialog box, locate the report you want to load and click Open.

The report displays in the StorHouse preview page.

C H A P T E R 5



System administration basics

This chapter shows you how to use StorHouse/Admin to perform the following StorHouse tasks that are commonly used to manage a StorHouse system:

- Create a level L volume set
- Create a level L file set
- Create a file access group
- Create a StorHouse account
- Display the properties of a user file
- Print a list of accounts
- Set a system parameter
- Schedule an event
- Close a current StorHouse log and open a new one
- Monitor system performance statistics
- Display device statuses



- Display the device usage pie chart
- Respond to an operator message
- Submit a StorHouse Command Language command.

You should perform the four create tasks in the order listed above. You can perform all other tasks in this chapter in any order.

There are several ways to access specific StorHouse/Admin dialog boxes to perform tasks. You can select a menu option, click a tool bar button, or open a folder in the folder list. Each task description in this chapter starts with a table listing the available methods for accessing a specific dialog box, followed by a screen capture of the dialog box and the required steps to perform the task. Unless otherwise noted, all tasks begin on the StorHouse Resources working window.

Some tasks require more privileges than are required to log in to StorHouse/Admin. See Appendix B, “Privileges for system administration tasks,” for all privileges you need to perform specific system administration tasks.


Creating a level L volume set

You create volume sets in StorHouse to group files together for simultaneous removal, to prevent access conflicts, to enhance performance, and to limit the use of StorHouse resources.

When you create a volume set, you must specify a volume set name. Optionally, you can assign volume set attributes. Any number of volumes (up to the volume set's limit) with the same media and recording type can belong to the same volume set.

The following table lists the ways you can access the Create VSET dialog box after you click the VSETs folder.

Table 5-1: Ways to access the Create VSET dialog box

From	Do this
Edit menu	Click Add/Create.
Tool bar	Click  .
Volume Sets list	Right-click and click Create.

The Create VSET dialog box looks like this:

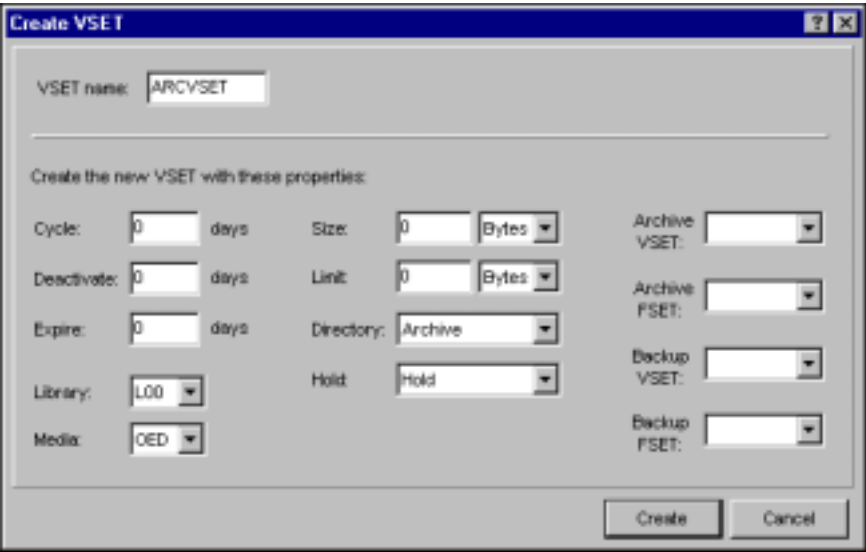


Figure 5-3: Create VSET dialog box

For the following procedure, create three volume sets in this order:

- An archive volume set called ARCVSET
- A backup volume set called BKPVSET
- A primary volume set called ACCTS99.



When you create the primary volume ACCTS99, you will assign ARCVSET as ACCTS99's default archive volume set and BKUPVSET as ACCTS99's default backup volume set. To make these assignments, you must create the archive and backup volume sets before you create the primary volume set because all resources in StorHouse/Admin (for example, volume sets, file sets, and groups) must be created before they can be assigned as defaults.

Assign the following attributes to the three volume sets:

- Disable cycling, deactivate, and expire features (set all to 0).
- Use media OED (2.6 GB erasable, 4X volumes) in library L00.
- Allocate no volumes to the volume sets until storage is needed (Size=0).
- Assign the maximum size of all the volume sets as unlimited (Limit=0).
- Assign the ARCHIVE directory for ARCVSET, the BACKUP directory for BKPVSET, and the PRIMARY directory for ACCTS99.
- Assign a value of HOLD to the HOLD attribute for all three volume sets.
- For ARCVSET, accept blank for the archive volume set, archive file set, backup volume set, and backup file set.
- For BKPVSET, accept blank for the archive volume set, archive file set, backup volume set, and backup file set.
- For ACCTS99, assign the following defaults:
 - ARCVSET as the archive volume set
 - BKPVSET as the backup volume set



- * as the archive file set
- * as the backup file set

▼ To create an archive volume set called ARCVSET

1. In the Create VSET dialog box, type ARCVSET in the **VSET name** box.
2. Accept 0 in the **Cycle** box.
3. Accept 0 in the **Deactivate** box.
4. Accept 0 in the **Expire** box.
5. Click L00 in the **Library** list.
6. Click OED in the **Media** list.
7. Accept 0 in the **Size** box.
8. Accept 0 in the **Limit** box.
9. Click Archive in the **Directory** list.
10. Click Hold in the **Hold** list.
11. Click Create.
12. Click OK to confirm the creation of the new volume set.

▼ To create a backup volume set called BKPVSET

1. In the Create VSET dialog box, type BKPVSET in the **VSET name** box.
2. Accept 0 in the **Cycle** box.



3. Accept 0 in the **Deactivate** box.
 4. Accept 0 in the **Expire** box.
 5. Click L00 in the **Library** list.
 6. Click OED in the **Media** list.
 7. Accept 0 in the **Size** box.
 8. Accept 0 in the **Limit** box.
 9. Click Backup in the **Directory** list.
 10. Click Hold in the **Hold** list.
 11. Click Create.
 12. Click OK to confirm the creation of the new volume set.
- ▼ To create a primary volume set called ACCTS99
1. In the Create VSET dialog box, type ACCTS99 in the **VSET name** box.
 2. Accept 0 in the **Cycle** box.
 3. Accept 0 in the **Deactivate** box.
 4. Accept 0 in the **Expire** box.
 5. Click L00 in the **Library** list.
 6. Click OED in the **Media** list.
 7. Accept 0 in the **Size** box.



8. Accept 0 in the **Limit** box.
9. Click Primary in the **Directory** list.
10. Click Hold in the **Hold** list.
11. Click ARCVSET in the **Archive VSET** box.
12. Click * in the **Archive FSET** box.
13. Click BKPVSET in the **Backup VSET** box.
14. Click * in the **Backup FSET** box.
15. Click Create.
16. Click OK to confirm the creation of the new volume set.
17. Click Done.

Creating a level L file set


You create file sets in StorHouse to group files together to enhance performance, use space efficiently, and to limit the use of StorHouse resources.

When you create a file set, you must specify a file set name and assign the file set to a volume set. Optionally, you can assign file set attributes.



The following table lists the ways you can access the Create FSET dialog box after you click any FSETs folder.

Table 5-2: Ways to access the Create FSET dialog box

From	Do this
Edit menu	Click Add/Create.
Tool bar	Click  .
File Sets list	Right-click and click Create.

The Create FSET dialog box looks like this:

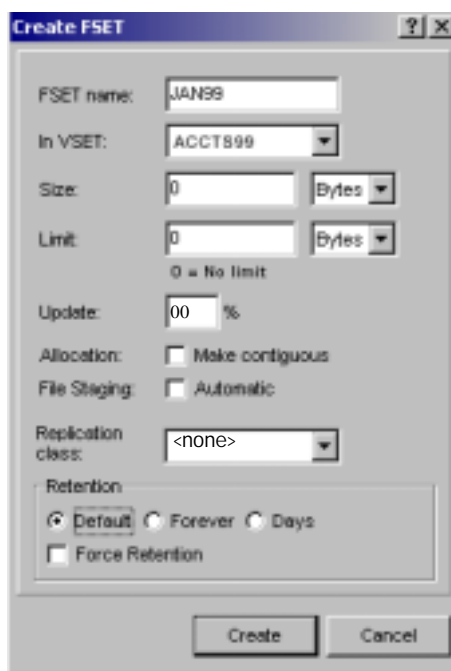


Figure 5-4: Create FSET dialog box



For this procedure, create a file set called JAN99 with the following attributes:

- Create JAN99 in volume set ACCTS99.
 - Allocate no files to the file set until storage is needed (Size=0).
 - Assign the maximum size of the file set as unlimited (Limit=0).
 - Instruct StorHouse to reserve no space for VRAM file updates and use general free space instead (Update=0%).
 - Create file set JAN99 as noncontiguous.
 - Set the retention to Default.
 - Do not assign a file replication class.
- ▼ To create the file set JAN99 in the ACCTS99 volume set
1. In the Create FSET dialog box, type JAN99 in the **FSET name** box.
 2. Click ACCTS99 in the **In VSET** list.
 3. Accept 0 in the **Size** box.
 4. Accept 0 in the **Limit** box.
 5. Type 0 in the **Update** box.
 6. Ensure the **Make contiguous** box is *not* selected.
 7. Click Default for the **Retention** value.
 8. Click Create.



9. Click OK to confirm the creation of the new file set.


10. Click Done.

Creating a file access group

You can create a file access group, which is a collection of files that are grouped together for access control. You typically assign files that are accessed by the same applications or users to the same file access group. This allows you to manage which users can access which files. StorHouse uses the file access group as the high-level qualifier for file names in the StorHouse directory. When you create a file access group, you must specify a group name.

The following table lists the ways you can access the Create Group dialog box after you click the Groups folder.

Table 5-3: Ways to access the Create Group dialog box

From	Do this
Edit menu	Click Add/Create.
Tool bar	Click  .
Groups list	Right-click and click Create.



The Create Group dialog box looks like this (Release 5.2):

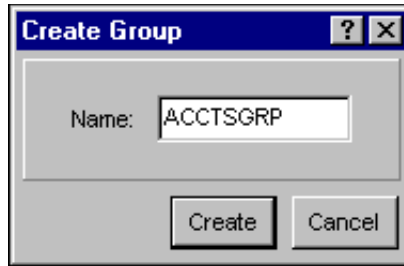


Figure 5-5: Create Group dialog box

The Create Group dialog box looks like this (Release 5.3 and higher):

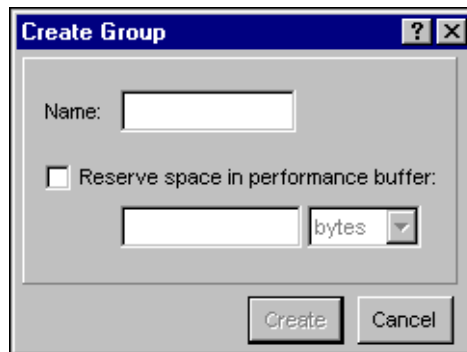


Figure 5-6: Create Group dialog box

You will now create a file access group called ACCTSGRP.

▼ To create file access group ACCTSGRP

1. In the Create Group dialog box, type ACCTSGRP in the **Name** box.
2. Click Create.




Creating a StorHouse account

When you create a StorHouse account, you must specify a name for the account. Optionally, you can assign an account password, privileges, and a default environment. You can also copy selected information from an existing account to a new account.

Note: If you assign a default file access group, volume set, or file set to an account, these resources must already exist.

The following table lists the ways you can access the Create Account dialog box after you click the Accounts folder.

Table 5-4: Ways to access the Create Account dialog box

From	Do this
Edit menu	Click Add/Create.
Tool bar	Click  .
Accounts list	Right-click and click Create.

The Create Account dialog box looks like this:

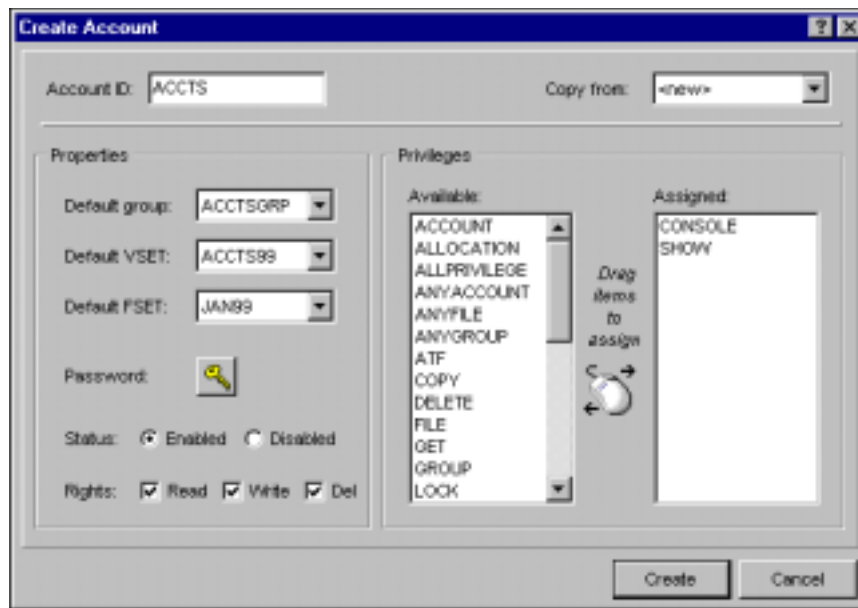



Figure 5-7: Create Account dialog box



For the following procedure, create an account called ACCTS. For this account:

- Assign a default group of ACCTSGRP.
- Assign a default VSET of ACCTS99 and a default FSET of JAN99.
- Assign a password of ACCTPASS.
- Enable the account.
- Assign read, write, and delete access.
- Grant the account SHOW and CONSOLE privileges.

▼ To create the StorHouse account ACCTS

1. In the Create Account dialog box, type ACCTS in the **Account ID** box.
2. Click ACCTSGRP in the **Default Group** box.
3. Click ACCTS99 in the **Default VSET** box.
4. Click JAN99 in the **Default FSET** box.
5. Click  to see the Enter Passwords dialog box.

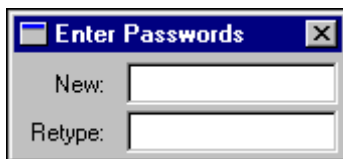



Figure 5-8: Enter Passwords dialog box

6. In the **New** box, type ACCTPASS. Retype ACCTPASS in the **Retype** box and press .
7. Click **Enabled**.



8. Select the **Read**, **Write**, and **Del** check boxes.
9. Drag the **CONSOLE** and **SHOW** privileges from the **Available** column to the **Assigned** column.
10. Click **Create**.
11. Click **OK** to confirm the creation of the new account.
12. Click **Done**.

Displaying user file properties

You can display the following properties for a user file:

- | | |
|---------------------------|---|
| ■ File name | ■ Host unit size |
| ■ Number of accesses | ■ Last access date/time |
| ■ ATF attribute | ■ Last modification date/time of file's directory entry |
| ■ Attribute code | ■ Last modification date/time of file's data |
| ■ Backup date | ■ Limit attribute |
| ■ Creation date | ■ Maximum record length |
| ■ Descriptor flags | ■ Organization code |
| ■ Directory record number | ■ Protection indicators |
| ■ EDC code | ■ Record count |
| ■ Extent count | ■ Replication class |
| ■ File ID | ■ Retention |
| ■ File system code | ■ Record header |




- Frame header size
- Frame size
- Frame version
- FSET name
- Host type code
- Highest revision number
- Size
- Status
- VSET name
- VTF attribute.

Note: You can copy file properties to the clipboard for use in other tasks.

The following table lists the ways you can access the File Properties dialog box.

Table 5-5: Ways to access the File Properties dialog box

From	Do this
Storage menu	<ol style="list-style-type: none">1. Point to File and then click Search.2. In the File Search Criteria dialog box, type the name of the file you want to display in the File name box.3. Click Find.4. In the Files list, right-click the file you want to display and then click Properties.
Tool bar	<ol style="list-style-type: none">1. Click .2. In the File Search Criteria dialog box, type the name of the file you want to display in the File name box.3. Click Find.4. In the Files list, right-click the file you want to display and then click Properties.
Files list	<ol style="list-style-type: none">1. Expand the VSETs folder.2. Expand the VSET folder that contains the file.3. Expand the FSETs folder.4. Click the FSET folder that contains the file.5. In the Files list, right-click the file you want to display and then click Properties.



The File Properties dialog box for files looks like this:

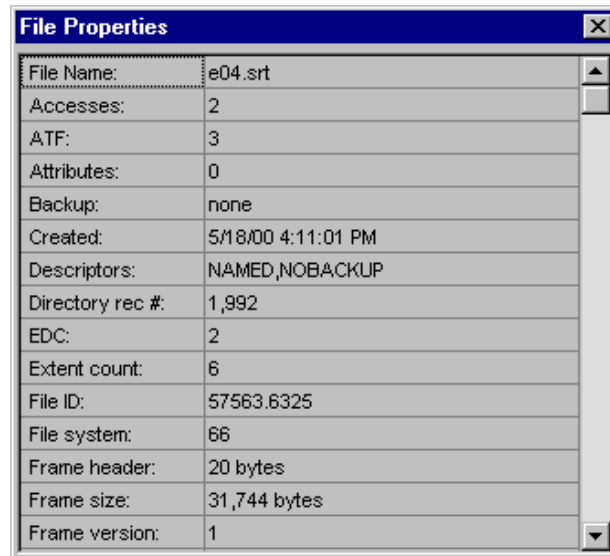


Figure 5-9: File Properties dialog box

Printing a list of accounts

You can print a list of all the accounts in your StorHouse system. The printout contains the following information for each account:


- Account ID
- Status (enabled or disabled)
- Default file access group
- Default volume set
- Default file set
- Rights
- Last access date and time.



▼ To print a list of all StorHouse accounts in your system

1. Click the Accounts folder.

2. Click  .

3. On the StorHouse Accounts preview page, click  .

4. Click Close.

Setting a system parameter

You may need to change the setting of a StorHouse system parameter to suit your site. There is only one way to access the System Configuration dialog box. On the System menu, click Configure.



The System Configuration dialog box looks like this:

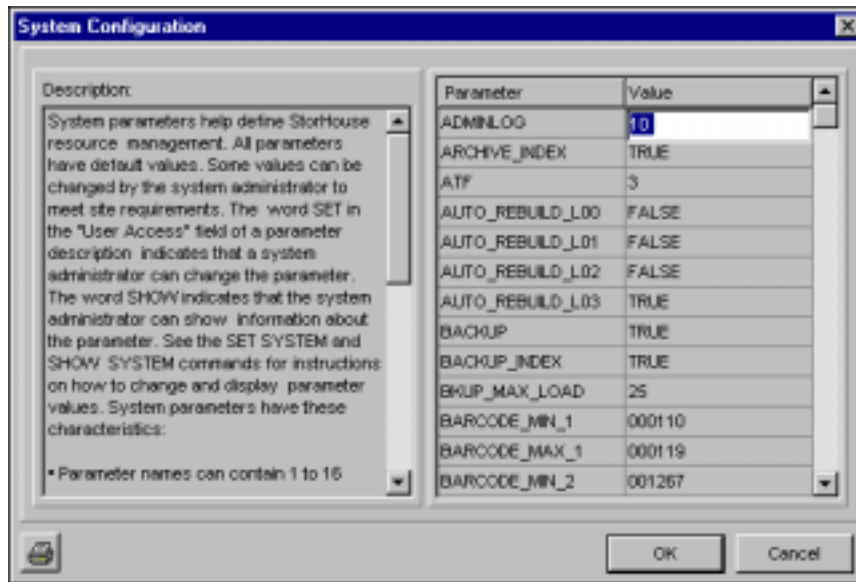


Figure 5-10: System Configuration dialog box

In the System Configuration dialog box, you must select values for some parameters from a list and type values for others. Procedures follow for each type of entry.

- ▼ To set the ADMINLOG system parameter to 20
 1. In the System Configuration dialog box, click the value of the ADMINLOG system parameter.
 2. Type a value of 20.
 3. Click OK.



▼ To set the BACKUP system parameter to TRUE

1. In the System Configuration dialog box, click the value of the BACKUP system parameter.
2. Click TRUE in the **Value** list.
3. Click OK.

Scheduling an event

You can schedule an *event* (a StorHouse Command Language command) to be run. The StorHouse scheduling function starts a separate user session and schedules the specified command to run in that session. StorHouse places all general responses, start notification messages, and completion status messages for the command being executed in the user log (if you have the LOG_COMMAND system parameter set to TRUE).

You can access the Schedule dialog box by clicking Schedule on the System menu. You can also access the Schedule dialog box by clicking



on selected dialog boxes (for example, New Log).



The Schedule dialog box looks like this:

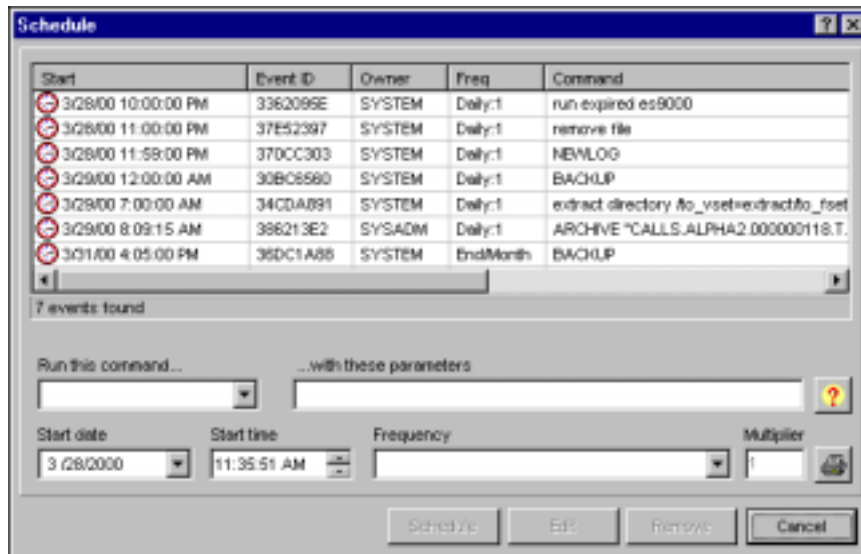


Figure 5-11: Schedule dialog box

For the following procedure, schedule the BACKUP command to run once a day at 11:00 P.M. starting on January 1, 2001.

- ▼ To schedule the BACKUP command
 1. In the Schedule dialog box, click BACKUP in the **Run this command...** list.
 2. Click 1/1/2001 in the **Start date** list. (After clicking the down arrow, use the right and left arrows to click the month of January and then click the day 1 on that calendar month.)
 3. Click 11:00:00 PM in the **Start time** box. (Click each element in the time setting and adjust it using the up and down arrows.)



4. Click DAILY in the **Frequency** list. (The frequency is the basic rate at which the event will occur.)
5. Click 1 in the **Multiplier** box. (The multiplier allows you to set the hourly, daily, and weekly frequencies to an integer multiple of the basic rate, such as every 7 days.)
6. Click Schedule.
7. Click Done.

The scheduled event appears in the table in the Schedule dialog box.

Closing a current StorHouse log and opening a new one

You can close the current version of the StorHouse administration and/or user log and open a new one. When you close a user log version, StorHouse writes the old version to a StorHouse file in a specific file set and volume set as determined by the values of the LOG_FSET and LOG_VSET system parameters.

There is only one way to access the New Log dialog box. On the System menu, click New Log.

Closing a current StorHouse log and opening a new one



The New Log dialog box looks like this:



Figure 5-12: New Log dialog box

- ▼ To close the StorHouse administration log and open a new one
 1. In the New Log dialog box, select the **Administration log** check box.
 2. Click Yes to close current the log and open a new one immediately, or click the Schedule button to schedule the current log to be closed and a new log opened.



Monitoring system performance statistics

StorHouse/Admin displays StorHouse system statistics on the StorHouse Status working window. You can monitor the following statistics in the following StorHouse releases:

Table 5-6: System statistics to monitor by release

StorHouse release	Statistics you can monitor
5.1 and above	<ul style="list-style-type: none">■ Command performance■ Drives■ Libraries■ Network■ Free pools■ Current users■ Usage■ Volumes
4.2 and 5.0	<ul style="list-style-type: none">■ Command performance■ Network■ Free pools■ Current users■ Usage



The system performance and usage statistics area on the StorHouse Status working window looks like this:

Statistics categories:	Category	Measure
Usage	L01 Mounts	7
	Total Mounts	7
	Shelf Operations	1
	File Opens	12
	Megabytes Read	10
	Megabytes Written	79
	Megabytes Copied	1
	Primary Cataloged Files	204,711
	Backup Cataloged Files	4,251

Figure 5-13: System performance and usage statistics area

- ▼ To monitor usage statistics
 1. Click StorHouse Status in the working window list.
 2. Click Usage in the **Statistics categories** list.
- ▼ To monitor current users
 1. Click StorHouse Status in the working window list.
 2. Click Current Users in the **Statistics categories** list.



Displaying device statuses

You can display the status and mode for StorHouse devices. Here is a list of StorHouse device statuses and modes:





Table 5-7: Device statuses and modes

Status	Description
UP	Available for use.
DOWN	Not available for use.
GOING_DOWN	Device is completing its current work, but StorHouse will not assign additional work to it. The status changes to DOWN when the current work completes.
COMING_UP	Device is being prepared for operation. The status changes to UP when the device is available for use.
Mode	Description
R	Device can only read the medium.
W	Device can only write to the medium.
RW	Device can read and write to the medium.

StorHouse/Admin uses colored icons to denote the status of a device:



Table 5-8: Device status icons

Icon color	Icon symbol	Description
Green		Device is up and running
Yellow		Device is coming up
Yellow		Device is going down
Red		Device is down

The following table lists the places you can monitor StorHouse devices in StorHouse/Admin.

Table 5-9: Where to monitor StorHouse devices

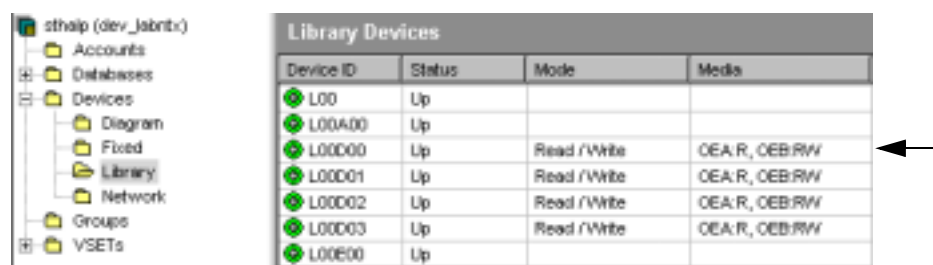
From	Do this
StorHouse Resources working window	<ol style="list-style-type: none"> 1. Expand the Devices folder. 2. Click any of the Fixed, Library, or Network folders to view the status of specific devices.
StorHouse Status working window	See the graph in the upper right corner, which shows the status and mode of specific devices.

The following procedures show you how to display the status of a specific device, L00D00, on both working windows.



- ▼ To view the status of device L00D00 on the StorHouse Resources working window

1. Open the Devices folder.
2. Open the Library folder. The display looks like this:

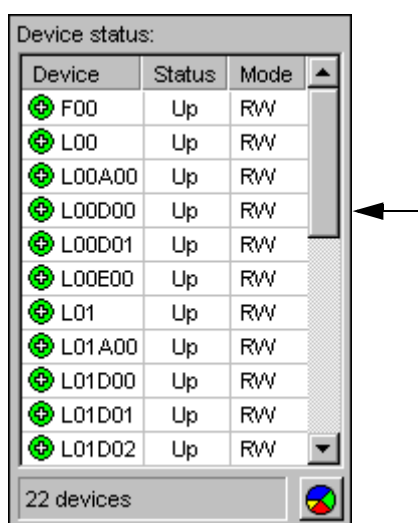


Device ID	Status	Mode	Media
L00	Up		
L00A00	Up		
L00D00	Up	Read / Write	CEA/R, CEB/RW
L00D01	Up	Read / Write	CEA/R, CEB/RW
L00D02	Up	Read / Write	CEA/R, CEB/RW
L00D03	Up	Read / Write	CEA/R, CEB/RW
L00E00	Up		

Figure 5-14: Library folder display

- ▼ To view the status of drive L00D00 on the StorHouse Status working window

Click StorHouse Status in the working window list. You see:



Device	Status	Mode
F00	Up	RW
L00	Up	RW
L00A00	Up	RW
L00D00	Up	RW
L00D01	Up	RW
L00E00	Up	RW
L01	Up	RW
L01A00	Up	RW
L01D00	Up	RW
L01D01	Up	RW
L01D02	Up	RW

22 devices

Figure 5-15: Device status and mode display



Displaying the device usage pie chart

You can display the percentage of device usage in pie chart format for:

- Average CPU utilization
- Library slots
- Library space (StorHouse Release 5.1 and above)
- Magnetic disk space
- Volume location
- Volume usage
- Drive usage (StorHouse Release 5.1 and above).

This pie chart graphic is located on the StorHouse Status working window, and looks like this:

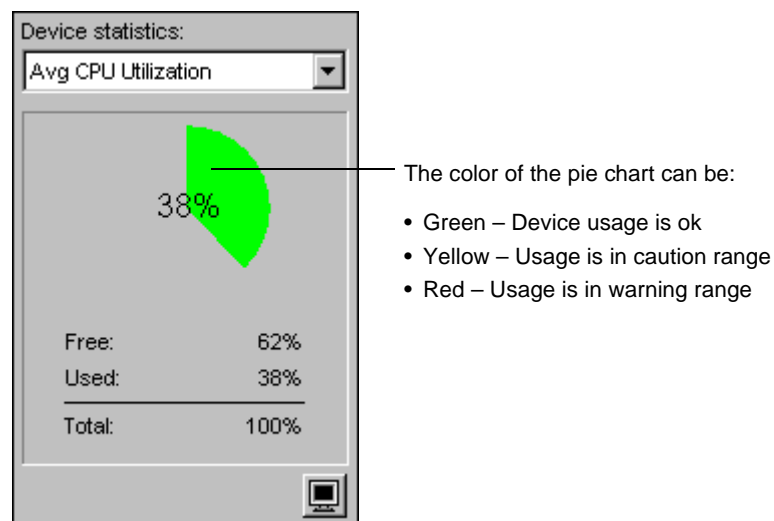



Figure 5-16: Pie chart graphic



The color of the pie chart is normally green. If device usage meets a user-defined caution limit, the color changes to yellow. If device usage meets a user-defined warning limit, the color changes to red. (You can view or set these limits on the Preferences dialog box. On the User menu, click Preferences.)

The following procedure shows you how to display the device usage pie chart for magnetic disk space.

▼ To access the pie chart for magnetic disk space

1. Click StorHouse Status in the working window list.
2. Click  on the device status display.

The device usage pie chart displays.

3. Click Mag Disk Space in the Device statistics list.

Responding to an operator message

You can respond to operator messages you have received on the StorHouse Status working window. The messages display in the black box.

The message display area on the StorHouse Status working window looks like this:

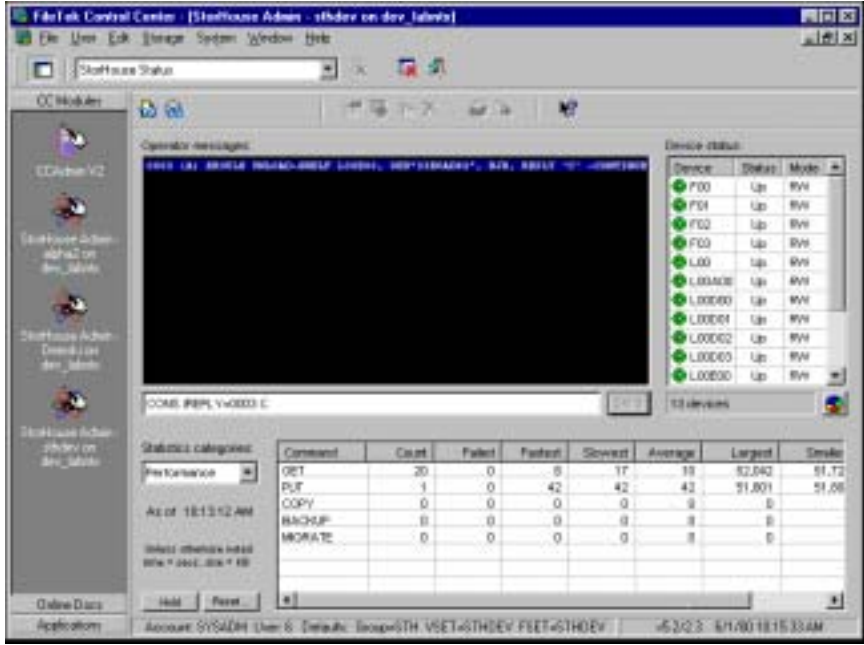


Figure 5-17: Responding to an operator message

- ▼ To respond to operator message XROULS UNLOAD - SHELF message shown above

1. Click StorHouse Status in the working window list.

The message appears in the message display area.

2. Click the message XROULS message.

StorHouse/Admin automatically displays a suggested response in the response area. (You can modify this response, if necessary. In this example, accept the response.)

- ### 3. Click Send.



Submitting a StorHouse Command Language command

You can submit StorHouse Command Language commands directly from the ISCL working window. For the following procedures, you will:

- Show all volume sets in the system by submitting the SHOW VSET command
- Clear the command results area and show all users in the system by submitting the SHOW USER command. (Note that clearing the command results area is optional – all command results append to any previous results.)
- Send the SHOW USER command results to the printer.

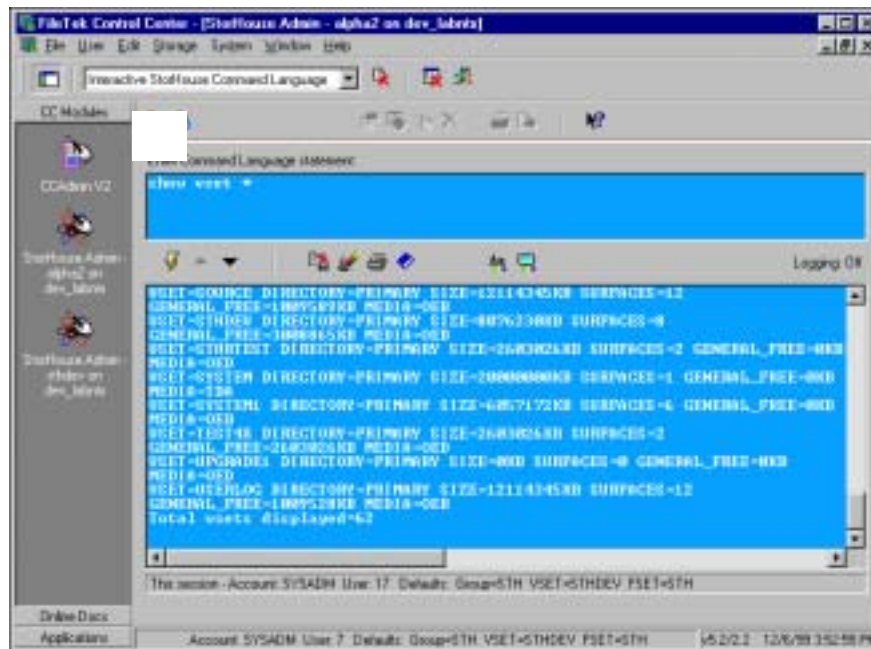


Figure 5-18: Submitting a StorHouse Command Language command


- ▼ To submit the SHOW VSET command and clear the command results area

1. On the System menu, click ISCL.


You'll see the Interactive StorHouse Command Language working window.

2. Type SHOW VSET * in the command entry area (see "Main window – ISCL" on page 2-19 for the window layout).





3. Click  to submit the command or press `Enter`.


The system response displays in the command results area.

4. Click  to clear the command results area.

▼ To submit the SHOW USER command and print the results

1. Click  to clear the command entry area.
2. Type SHOW USER * in the command entry area.
3. Click  to submit the command or press `Enter`.

The system response displays in the command results area.

4. Click  .
5. The StorHouse Command Interface Session preview page appears.
6. Click OK.



Database administration basics

This chapter shows you how to use StorHouse/Admin to perform the following StorHouse database administration tasks:

- Create a database
- Create a user tablespace
- Create a user table
- Create an index for a user table
- Grant database privileges
- Revoke database privileges
- List all tables in a database
- List all indexes on a table
- List column definitions in a table
- Drop a user table
- Back up a user table segment
- Invoke a metadata backup
- Perform a database integrity test.



You should perform the four create tasks in the order listed above. You can perform all other tasks in this chapter in any order.

There are several ways to access specific StorHouse/Admin dialog boxes to perform tasks. You can select a menu option, click a tool bar button, or open a folder in the folder list. Each task description in this chapter starts with a table listing the available methods for accessing a specific dialog box, followed by a screen capture of the dialog box and the required steps to perform the task.

Some tasks require more privileges than are required to log in to StorHouse/Admin. See Appendix C, “Privileges for database administration tasks,” for all privileges you need to perform database administration tasks.

Creating a database

You create a StorHouse database to manage the storage, access, and movement of relational data. Once data is loaded, client applications and database tools running on a variety of host platforms can access selected rows of information on any layer in the StorHouse hierarchy using industry-standard Structured Query Language (SQL).

When you create a database, you must specify a name. A StorHouse database name:


- Must start with a letter
- Is case sensitive
- Can contain up to 32 contiguous characters (no blanks) including a-z (lowercase), A-Z (uppercase), 0-9, and underscore (_).

Note: If you use StorHouse in conjunction with a local database, you must follow the naming rules for your local database. For example, a

StorHouse database name must be in uppercase and cannot exceed 16 characters when used with DB2 and DRDA.

The following table lists the ways you can access the Create Database dialog box after you expand the Databases folder.

Table 6-1: Ways to access the Create Database dialog box

From	Do this
Edit menu	Click Add/Create.
Tool bar	Click  .
Databases list	Right-click and click Create.

The Create Database dialog box looks like this:

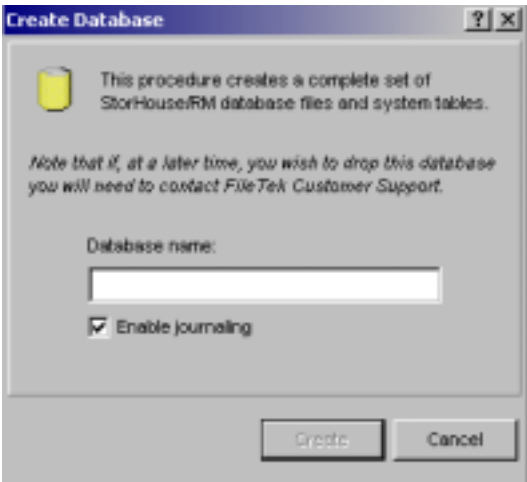


Figure 6-1: Create Database dialog box



▼ To create a database called CALLS

1. In the Create Database dialog box, type CALLS in the **Database name** box.
2. Click Create.

Creating a user tablespace

Before creating and loading user tables in a database, you create one or more user tablespaces and can designate a default user tablespace for the database. A *user tablespace* is a logical database component that defines where to store segment files on StorHouse and how to manage them. When you create a user table, you assign it to a user tablespace. You can assign LOB columns (available in StorHouse/RM Release 3.0 and above) to the same user tablespace as the table or to different user tablespaces. And when you create indexes for that user table, you can assign them to the same user tablespace as the table or to different ones. The table files, index files, and LOB subsegment files are stored according to the specifications of their assigned user tablespace.

A user tablespace consists of one or more subspaces. A *subspace* contains a set of storage specifications for a specific type of user table component—table data, indexes, LOB data—or for all components. You add subspaces to a tablespace when you create it.

When you create a user tablespace, you must specify a name. A StorHouse user tablespace name:

- Must start with a letter
- Is not case sensitive unless delimited




- Can contain up to 32 contiguous characters (no blanks) including a-z (lowercase), A-Z (uppercase), 0-9, and underscore (_)
- Must be unique within a database
- Cannot be a StorHouse SQL reserved word (see the *StorHouse SQL Reference Manual*).

The following table lists the ways you can access the Create Tablespace dialog box after you:

1. Expand the Databases folder.
2. Expand the folder for the database where you want to create a user tablespace.
3. Click the Tablespaces folder.

Table 6-2: Ways to access the Create Tablespace dialog box

From	Do this
Edit menu	Click Add/Create.
Tool bar	Click  .
Tablespaces list	Right-click and click Create.



Creating a tablespace

The Create Tablespace dialog box looks like this:

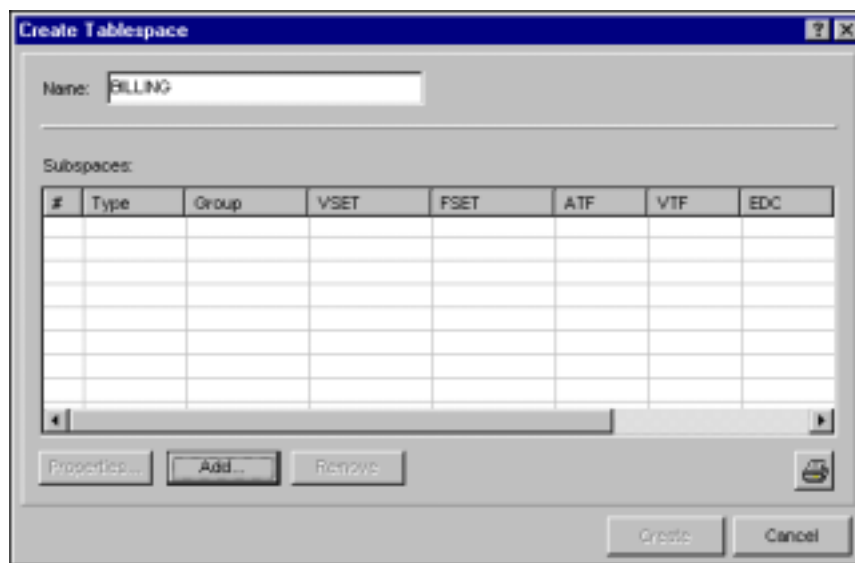


Figure 6-2: Create Tablespace dialog box

After you name the new tablespace, you have to add one or more subspaces. Click Add to display the Add Subspace dialog box.

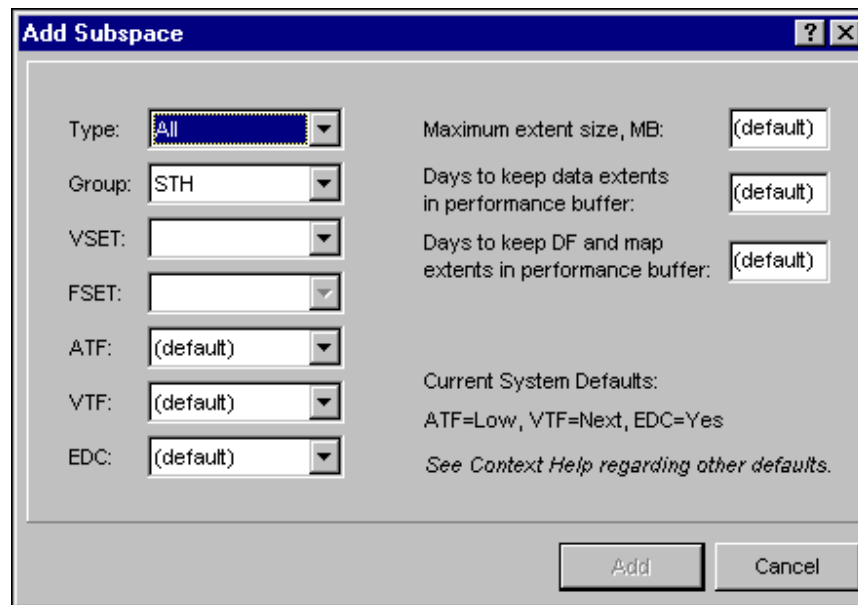


Figure 6-3: Add Subspace dialog box

For the following procedure, create a user tablespace called BILLING in the CALLS database. Create three subspaces with the following attributes:

- Subspace 1:
 - Type: Table (for table data)
 - Group: STH
 - VSET: JAN2000T
 - FSET: JAN2000T
 - ATF: Moderate
 - VTF: Default
 - EDC: Default
 - Maximum extent size in MB: 400
 - Days to keep data extents in performance buffer: 30
 - Days to keep DF and map extents in performance buffer: 180



■ Subspace 2:

- Type: Hash (for hash indexes)
- Group: STH
- VSET: JAN2000H
- FSET: JAN2000H
- ATF: High
- VTF: Next
- EDC: Default
- Maximum extent size in MB: 800
- Days to keep data extents in performance buffer: 90
- Days to keep DF and map extents in performance buffer: 365

■ Subspace 3:

- Type: Value (for value indexes)
- Group: STH
- VSET: JAN2000V
- FSET: JAN2000V
- ATF: High
- VTF: Next
- EDC: Default
- Maximum extent size in MB: 500
- Days to keep data extents in performance buffer: 90
- Days to keep DF and map extents in performance buffer: 365

▼ To create the user tablespace BILLING with three subspaces

1. In the Create Tablespace dialog box, type BILLING in the **Name** box.
2. Click Add.
3. In the Add Subspace dialog box, click Table in the **Type** list.
4. Click STH in the **Group** list.



5. Click JAN2000T in the **VSET** list.
6. Click JAN2000T in the **FSET** list.
7. Click Moderate in the **ATF** list.
8. Accept (default) in the **VTF** list.
9. Accept (default) in the **EDC** list.
10. Type 400 in the **Maximum extent size, MB** box.
11. Type 30 in the **Days to keep data extents in performance buffer** box.
12. Type 180 in the **Days to keep DF and map extents in performance buffer** box.
13. Click Add.
14. In the Create Tablespace dialog box, click Add.
15. In the Add Subspace dialog box, click Hash in the **Type** list.
16. Click STH in the **Group** list.
17. Click JAN2000H in the **VSET** list.
18. Click JAN2000H in the **FSET** list.
19. Click High in the **ATF** list.
20. Click Next in the **VTF** list.
21. Accept (default) in the **EDC** list.
22. Type 800 in the **Maximum extent size, MB** box.



23. Type 90 in the **Days to keep data extents in performance buffer** box.
24. Type 365 in the **Days to keep DF and map extents in performance buffer** box.
25. Click Add.
26. In the Create Tablespace dialog box, click Add.
27. In the Add Subspace dialog box, Click Value in the **Type** list.
28. Click STH in the **Group** list.
29. Click JAN2000V in the **VSET** list.
30. Click JAN2000V in the **FSET** list.
31. Click High in the **ATF** list.
32. Click Next in the **VTF** list.
33. Accept (default) in the **EDC** list.
34. Type 500 in the **Maximum extent size, MB** box.
35. Type 90 in the **Days to keep data extents in performance buffer** box.
36. Type 365 in the **Days to keep DF and map extents in performance buffer** box.
37. Click Add.
38. In the Create Tablespace dialog box, click Create.




Creating a user table

A user table is a logical collection of user data that you can access by columns and rows. When you create a user table, you must specify a name. The rules for naming a user table are the same as those for naming a user tablespace. See page 6-4 for the naming rules.

The following table lists the ways you can access the Create Table dialog box after you:

1. Expand the Databases folder.
2. Expand the folder for the database where you want to create a user table.
3. Expand the Tables folder.
4. Click the User folder.

Table 6-3: Ways to access the Create Table dialog box

From	Do this
Edit menu	Click Add/Create.
Tool bar	Click  .
User Tables list	Right-click and click Create.



The Create Table dialog box looks like this:

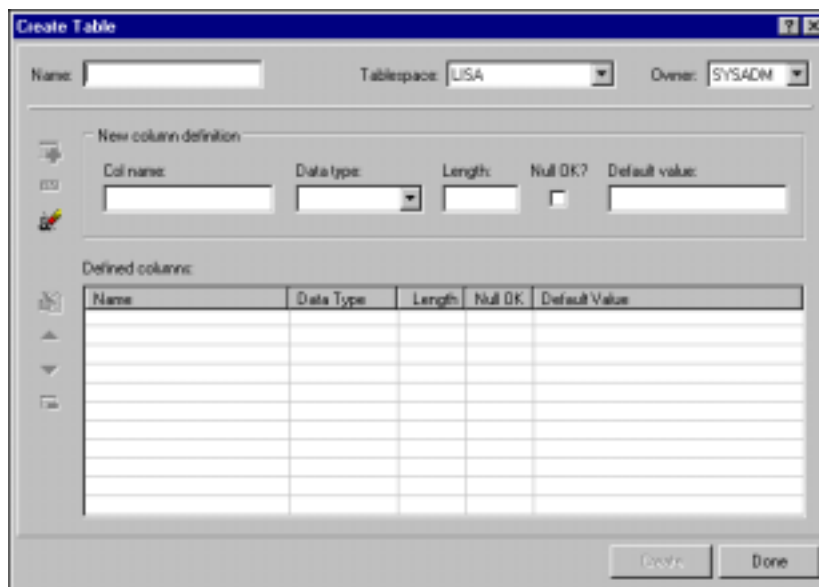


Figure 6-4: Create Table dialog box

For this procedure, create a user table called BILLDETAIL with the following attributes:

- Assign the BILLDETAIL user table to the BILLING tablespace.
- Assign the owner of the user table as CALLSDBA.
- Define six columns in the table with the following characteristics:

Column name	Data type	Length	Null OK?	Default value
BILL_ACCOUNT	Character	10	No	None
BILL_DATE	Date	4*	No	None
CALL_ID	Character	5	No	None
CALL_TO	Character	10	No	None



Column name	Data type	Length	Null OK?	Default value
CALL_TIME	Time	4*	No	None
CALL_AMOUNT	Character	10	No	None

* DATE and TIME data types are fixed-length data types.

▼ To create user table BILLDETAIL

1. In the Create Table dialog box, type BILLDETAIL in the **Name** box.
2. Click BILLING in the **Tablespace** list.
3. Click CALLSDBA in the **Owner** list.
4. In the Column definition area, type BILL_ACCOUNT in the **Col name** box.
5. Click Character in the **Data type** list.

For StorHouse/RM Release 3.0 and above, if you click a data type of BLOB or CLOB, the **Length** box changes to the Storage button. Click this button. In the LOB Storage Options dialog box, choose a LOB storage distribution strategy and a storage location for LOB data. Click OK. Here is a picture of this dialog box:

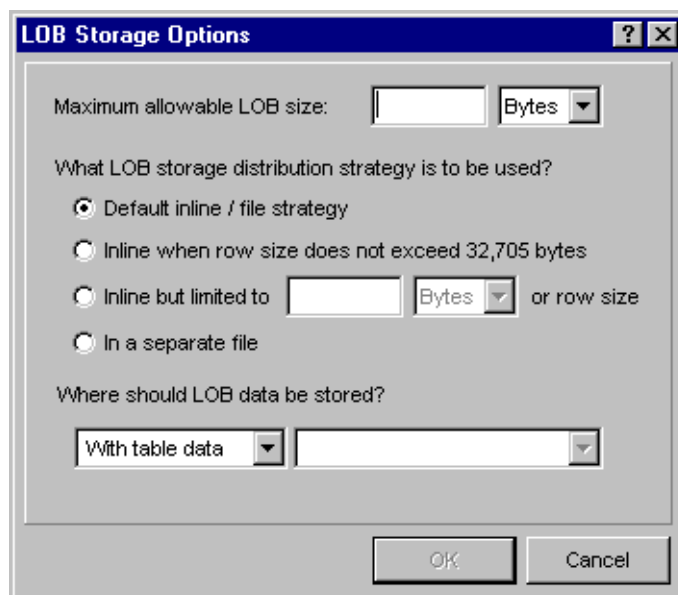



Figure 6-5: LOB Storage Options dialog box

6. Type 10 in the **Length** box.
7. Ensure the **Null OK?** box is deselected.
8. Ensure the **Default value** box is blank.
9. Click .
10. Repeat steps 4 through 9 for each of the remaining five columns using the values shown above.
11. When you have finished defining the columns, click Create.
12. In the Confirm dialog box, click Yes to create indexes for the BILLDETAIL table now or click No to create them later.



Creating an index for a user table

You can create an index on a column or combination of columns (compound index) in a user table to locate data more quickly and efficiently. StorHouse supports three index types—range, value, and hash. When you create an index, you must specify the type and give it a name. The rules for naming an index are the same as those for naming a tablespace. See page 6-4 for the naming rules.


Note: For StorHouse/RM Releases 2.3 and 3.0, you must create all indexes before you load table data. For StorHouse/RM Release 3.1, you can create indexes before and after you load table data.

If you do not create indexes when you create the user table, the following table lists the ways you can access the Create Index dialog box after you:

1. Expand the Databases folder.
2. Expand the folder for the database where you want to create an index.
3. Expand the Tables folder.
4. Expand the User folder.
5. Expand the folder for the user table whose index you want to create.
6. Click the Indexes folder.



Table 6-4: Ways to access the Create Index dialog box

From	Do this
Edit menu	Click Add/Create.
Tool bar	Click  .
Indexes list	Right-click and click Create.

The Create Index dialog box looks like this:

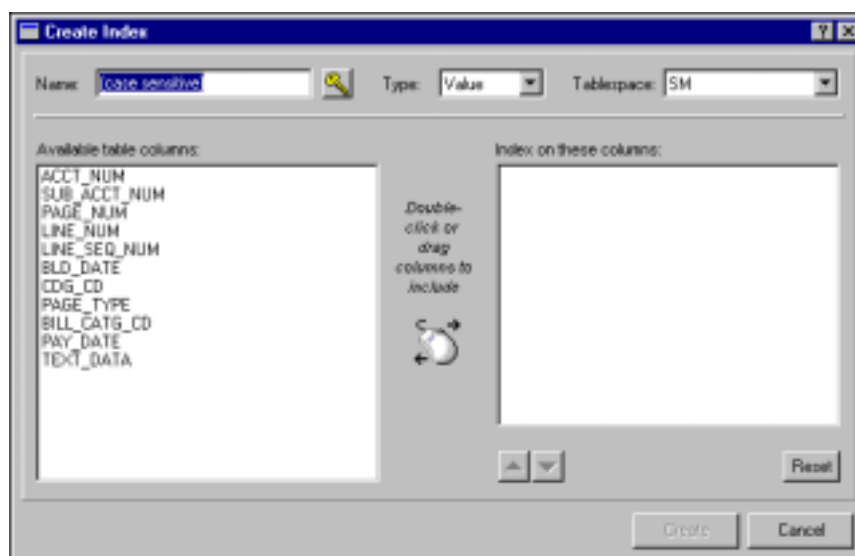


Figure 6-6: Create Index dialog box

For the following procedure, create an index called BILLDETAILH1 on the user table BILLDETAIL. For this index:

- Assign a type of HASH.
- Assign the index to the BILLING tablespace.
- Assign the BILLACCOUNT column to the index.



▼ To create the index BILLDETAILH1

1. In the Create Index dialog box, type BILLDETAILH1 in the **Name** box.
2. Click HASH in the **Type** list.
3. Click BILLING in the **Tablespace** list.
4. Click BILLACCOUNT in the **Available table columns** box and drag it to the **Index on these columns** box.
5. Click Create.

Granting database privileges

You can grant database privileges to an account to control the functions that account can perform in a specific database. There are three StorHouse database privileges:

- DBA
- RESOURCE
- SCAN

For more information about the database privileges required to perform specific database administration tasks, see the *StorHouse Database Administration Guide*.

▼ To grant DBA database privilege to the CALLSDBA account

1. Expand the Databases folder.
2. Expand the CALLS database folder.



3. Click the DB Accounts folder.
4. In the Database Accounts list, right-click the CALLSDBA account and click DBA.

Revoking database privileges

You can revoke one or more database privileges from an account. For the following example, revoke DBA privilege from the CALLSDBA account.

▼ To revoke DBA privilege from CALLSDBA

1. Expand the Databases folder.
2. Expand the CALLS database folder.
3. Click the DB Accounts folder.
4. In the Database Accounts list, right-click the CALLSDBA account and click DBA. The check by DBA disappears.
5. To confirm the action, check that the word “No” displays in the DBA column for the CALLSDBA account in the Database Accounts list.



Listing all tables in a database

You can list the following information for each user table and system table in a database:

- Name
- Creator
- Owner
- Tablespace
- Table ID
- Database

▼ To list all user or system tables in the CALLS database

1. Expand the Databases folder.
2. Expand the CALLS database folder.
3. Expand the Tables folder.
4. Click the User folder to see all user tables in the database, or click the System folder to see all system tables in the database.

Listing all indexes on a table

You can list the indexes on user and system tables in a database. You can display the following information about each index:

- Name
- Owner
- Type (HASH, RANGE, or VALUE)



- Tablespace
 - Whether the index is unique
 - The index order (ascending or descending)
 - The columns on which the index is based
 - Status (complete or deferred).
- ▼ To list all indexes on the BILLDETAIL user table
1. Expand the Databases folder.
 2. Expand the CALLS database folder.
 3. Expand the Tables folder.
 4. Expand the User folder.
 5. Expand the BILLDETAIL user table folder.
 6. Click the Indexes folder.
- ▼ To list all indexes on the SYSIDXSTAT system table
1. Expand the Databases folder.
 2. Expand the CALLS database folder.
 3. Expand the Tables folder.
 4. Expand the System folder.
 5. Expand the SYSIDXSTAT system table folder.
 6. Click the Indexes folder.



Listing column definitions in a table

You can list the column definitions in user or system tables in a database. You can list the following information on each column:

- Name
- Data type
- Length
- Null indicator
- Default value
- LOB storage strategy (for StorHouse/RM Release 3.0 and above)
- LOB storage location (for StorHouse/RM Release 3.0 and above).

▼ To list column definitions in the BILLDETAIL user table

1. Expand the Databases folder.
2. Expand the CALLS database folder.
3. Expand the Tables folder.
4. Expand the User folder.
5. Expand the BILLDETAIL user table folder.
6. Click the Columns folder.

▼ To list column definitions in the SYSIDXSTAT system table

1. Expand the Databases folder.
2. Expand the CALLS database folder.
3. Expand the Tables folder.



4. Expand the System folder.
5. Expand the SYSIDXSTAT system table folder.
6. Click the Columns folder.

Dropping a user table

You can drop a user table to remove it from a database. StorHouse/RM also drops any indexes associated with the table and marks the associated table and index segments for deletion.

The following procedure tells you how to drop the BILLDETAIL user table.

▼ To drop user table BILLDETAIL

1. Expand the Databases folder.
2. Expand the CALLS database folder.
3. Expand the Tables folder.
4. Click the User folder.
5. In the User Tables list, right-click the BILLDETAIL user table and click Drop.
6. In the Confirm dialog box, click OK.



Backing up all files in a segment

You can back up all files in a segment to backup volume sets. There is only one way to access the Backup dialog box, which is through the folder list.

1. Expand the Databases folder.
2. Expand the folder for the database that contains the segment(s) you want to back up.
3. Expand the Tables folder.
4. Expand the User folder.
5. Expand the folder for the user table that contains the segment(s) you want to back up.
6. Click the Segments folder.
7. In the Filter List dialog box, type the name(s) of the segment tag(s) or load ID(s) that you want to back up. (You can use * to find multiple tags or IDs.)
8. Provide any optional information in the Filter List dialog box.
9. Click OK.
10. In the Segments list, right-click the segment(s) you want to back up and click Backup.



The Backup dialog box looks like this:

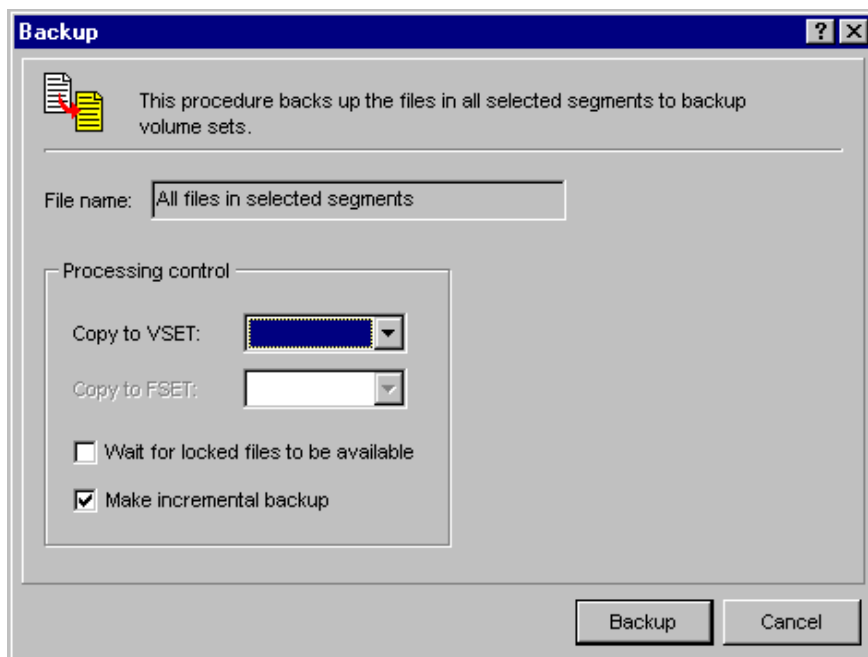


Figure 6-7: Backup dialog box

The following example shows you how to back up the CALLS.ALPHA2.000000121.T.0000 segment.

- ▼ To back up the CALLS.ALPHA2.000000121.T.0000 segment
 1. In the Backup dialog box, click a volume set in the **Copy to VSET** list.
 2. Click a file set in the **Copy to FSET** list.
 3. Provide any optional information on the Backup dialog box.
 4. Click Backup.



Invoking a metadata backup

You can back up metadata for one or more databases at a time. A metadata backup backs up components in system tablespaces, including the following database components:

- System tables (files with .TBL extensions)
- System table index files (files with .IDX extensions)
- System log files (files with .LOG extensions)
- Range indexes (files with .IDX.RANGE extensions)

FileTek recommends that you invoke a metadata backup after each data load and after committing any DDL statements.

There is only one way to access the Metadata Backup dialog box, which is through the folder list:

1. Click the Databases folder.
2. In the Databases list, right-click the database whose metadata you want to back up.
3. Point to Metadata and then click Backup.



The Metadata Backup dialog box looks like this:

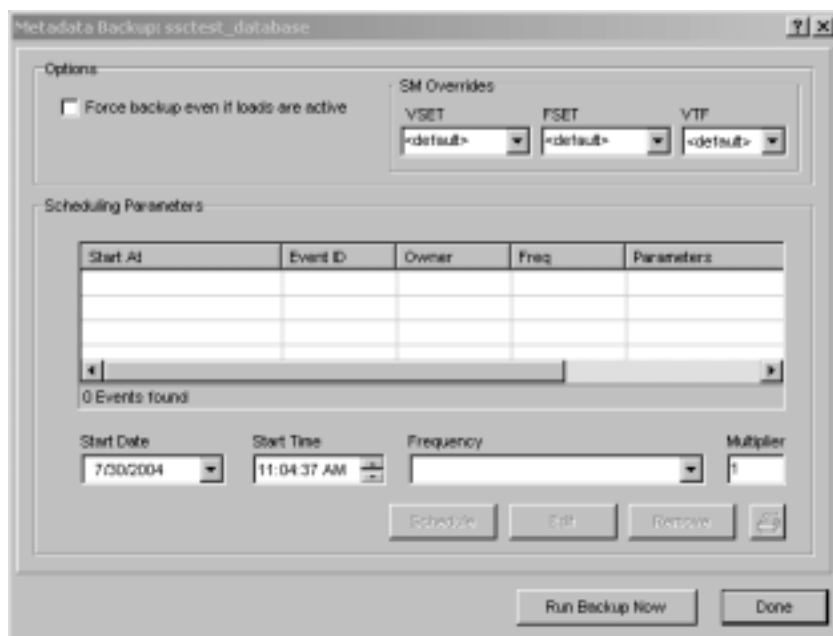


Figure 6-8: Metadata Backup dialog box

The following procedure tells you how to back up the metadata for the CALLS database.

- ▼ To back up the metadata for the CALLS database
 1. In the Metadata Backup dialog box, select the **Force backup even if loads are active** check box if you want to back up the metadata while data is being loaded into the database. Otherwise, do not select this check box.
 2. Click **Run backup now**.
 3. Click **Done**.



Performing a database integrity test

You can perform any of the following tests to determine the referential integrity between StorHouse/RM metadata and StorHouse resources:

- Owner account test – compares metadata table, index, and synonym owner records to existing StorHouse account IDs. The results identify system tables where phantom owner accounts are found.
- Segment file access group test – compares metadata segment records to existing StorHouse file access group IDs. The results identify segments stored in phantom groups.
- Segment integrity test – compares metadata segment records to actual segment files and reports discrepancies.
- Subspace resources test – compares metadata subspace records to existing StorHouse groups, VSETs, and FSETs. The results identify subspaces that are assigned to non-existent resources.

You must have DBA and RESOURCE privileges to perform these tests. Although you can run different tests, the procedure is the same for all. As with other lists in StorHouse/Admin, you can print and export the test results.



▼ To perform a database integrity test

1. In the folder list, click the Databases folder.
2. In the Databases list, right-click the database you want to test and then click Integrity Tests.
3. In the Database Integrity Tests dialog box, click the test you want to perform.
4. Click Start.

A P P E N D I X A



StorHouse/Admin Command Language

This appendix correlates StorHouse Command Language command submission with StorHouse/Admin GUI functions. Unless otherwise noted, you perform all StorHouse/Admin GUI functions from the StorHouse Resources working window.



Table A-1: Command Language commands

Command	Where to submit in StorHouse/Admin GUI
! (COMMENT)	On the Interactive StorHouse Command Language (ISCL) working window, type the command.
ARCHIVE	On the Storage menu, point to File and then click Archive.
BACKUP	On the Storage menu, point to File and then click Write-back.
CATALOG VSET	Click the VSETs folder. In the Volume Sets list, right-click the volume set and then click Catalog.
CHECKPOINT	On the Interactive StorHouse Command Language (ISCL) working window, type the command.
CONSOLE /REPLY	On the StorHouse Status working window, type the operator response message (if necessary) and then click Send. (The Send button is available only if you have selected the Operator station in the Preferences dialog box.)
CREATE ACCOUNT	Click the Accounts folder. On the Edit menu, click Add/Create.
CREATE BACKUP	On the Storage menu, point to File and then click Backup.
CREATE FILE	Not supported in StorHouse/Admin.
CREATE FSET	Expand the VSETs folder and expand any volume set. Click the FSETs folder. On the Edit menu, click Add/Create.
CREATE GROUP	Click the Groups folder. On the Edit menu, click Add/Create.
CREATE PRIMARY	On the Storage menu, point to File and then click Create Primary.
CREATE VSET	Click the VSETs folder. On the Edit menu, click Add/Create.



Table A-1: Command Language commands (continued)

Command	Where to submit in StorHouse/Admin GUI
DELETE	On the Storage menu, point to File and then click Search. In the File Search Criteria dialog box, type the name of the file in the File name box and click Find. In the Files list, click the file you want to delete. On the Edit menu, click Delete/Drop. In the Delete dialog box, click Yes.
DOWN DEVICE	Expand the Devices folder. Click the folder that contains the device you want to take down. In the Devices list, right-click the device and then click Take Down.
ENABLE	On the Storage menu, point to File and then click Search. In the File Search Criteria dialog box, type the name of the file in the File name box and click Find. In the Files list, right-click the file and then click Enable.
ERASE VOLUME	On the Storage menu, point to Volume and then click Search. In the Volume Search Criteria dialog box, type the ID of the volume in the Volume ID box and click Find. In the Volumes list, right-click the volume and then click Erase.
ERASE VSET	Click the VSETs folder. In the Volume Sets list, right-click the volume set and then click Erase.
EXPORT (VOLUME)	On the Storage menu, point to Volume and then click Search. In the Volume Search Criteria dialog box, type the ID of the volume in the Volume ID box and click Find. In the Volumes list, right-click the volume and then click Export.
EXPORT (VSET)	Click the VSETs folder. In the Volume Sets list, right-click the volume set and then click Export.
EXTRACT DIRECTORY	On the Storage menu, point to Directory and then click Extract.
GET	Not supported in StorHouse/Admin.
HELP	On the Help menu, click CC Contents and Index, and then open the StorHouse Command Language book.
IMPORT	Click the VSETs folder. In the Volume Sets list, right-click the volume set and then click Import VSET.



Table A-1: Command Language commands (continued)

Command	Where to submit in StorHouse/Admin GUI
IMPORT /MERGE	Click the VSETs folder. In the Volume Sets list, right-click the volume set and then click Import Into.
INITIALIZE DEVICE	Not supported in StorHouse/Admin.
LOCK	On the Storage menu, point to File and then click Search. In the File Search Criteria dialog box, type the name of the file in the File name box and click Find. In the Files list, right-click the file and then click Lock.
MESSAGE	On the Interactive StorHouse Command Language (ISCL) working window, type the command.
MIGRATE	On the Storage menu, point to File and then click Migrate.
MIGRATE /BLANKS	On the Interactive StorHouse Command Language (ISCL) working window, type the command.
MONITOR	StorHouse/Admin submits this command automatically at user-defined intervals. Results display on the StorHouse Status working window.
MOVE VOLUME	On the Storage menu, point to Volume and then click Move.
MOVE VSET	Click the VSETs folder. In the Volume Sets list, right-click the volume set and then click Move.
NEWLOG	On the System menu, click New Log.
PURGE	On the Storage menu, point to File and then click Purge.
PUT	Not supported in StorHouse/Admin.
RECOVER DEVICE	Not supported in StorHouse/Admin.
RECOVER VOLUME	On the Storage menu, point to Volume and then click Recover.
RELOCATE	On the Storage menu, point to File and then click Relocate.
REMOVE ACCOUNT	Click the Accounts folder. In the Accounts list, click the account. On the Edit menu, click Delete/Drop.



Table A-1: Command Language commands (continued)

Command	Where to submit in StorHouse/Admin GUI
REMOVE FILE	On the Storage menu, point to File and then click Remove.
REMOVE GROUP	Click the Groups folder. In the Groups list, click the group. On the Edit menu, click Delete/Drop.
REMOVE SCHEDULE	On the System menu, click Schedule. In the Schedule dialog box, click the scheduled event and then click Remove.
REPLICATE	On the System menu, click Schedule. In the Schedule dialog box, click REPLICATE in the Run this command list. Complete the rest of the Schedule dialog box.
RESERVE SYSTEM	On the Interactive StorHouse Command Language (ISCL) working window, type the command.
RESTORE DIRECTORY	On the Storage menu, point to Directory and then click Restore.
RETIRE VOLUME	On the Storage menu, point to Volume and then click Retire.
RUN	Not supported in StorHouse/Admin.
SCHEDULE	On the System menu, click Schedule.
SERVICE	Not supported in StorHouse/Admin.
SET ACCOUNT	Click the Accounts folder. In the Accounts list, right-click account and then click Set.
SET DEVICE	Click the Devices folder. Click the folder that contains the device you want to set and then right-click Set Read-Only.
SET FILE	On the Storage menu, point to File and then click Search. In the File Search Criteria dialog box, type the name of the file in the File name box and click Find. In the Files list, right-click the file and then click Set.
SET FSET	Expand the VSETs folder. Expand the folder for the volume set that contains the file set you want to change. Click the FSETs folder. In the File Sets list, right-click the file set and then click Set.



Table A-1: Command Language commands (continued)

Command	Where to submit in StorHouse/Admin GUI
SET FSET /RELEASE	Expand the VSETs folder. Expand the folder for the volume set that contains the file set you want to change. Click the FSETs folder. In the File Sets list, right-click the file set and then click Release.
SET GROUP	Click the Groups folder. In the Groups list, right-click the group and then click Set.
SET SYSTEM	On the System menu, click Configure.
SET USER	On the User menu, click Session Defaults.
SET VOLUME	On the Storage menu, point to Volume and then click Search. In the Volume Search Criteria dialog box, type the ID of the volume in the Volume ID box and click Find. In the Volumes list, right-click the volume and then click Set.
SET VSET	Click the VSETs folder. In the Volume Sets list, right-click the volume set and then click Set.
SET VSET /RELEASE	Click the VSETs folder. In the Volume Sets list, right-click the volume set and then click Release.
SHOW ACCOUNT	Click the Accounts folder.
SHOW DEVICE	Click the Devices folder and then click the folder for the specified device type.
SHOW FILE	On the Storage menu, point to File and then click Search.
SHOW FSET	Expand the VSETs folder. Expand the folder for the volume set that contains the file set you want to display. Click the FSETs folder.
SHOW GROUPS	Click the Groups folder.
SHOW LOCKS	On the Storage menu, point to File and then click Search. In the File Search Criteria dialog box, accept * in the File ID box and select the Locked check box. Click Find.



Table A-1: Command Language commands (continued)

Command	Where to submit in StorHouse/Admin GUI
SHOW PARTITION	Expand the VSETs folder. Expand the folder for the volume set that contains the file set partitions you want to display. Click the FSETs folder. In the File Sets list, right-click the file set and then click Partitions.
SHOW SCHEDULE	On the System menu, click Schedule.
SHOW SYSTEM	On the System menu, click Configure.
SHOW TIME	StorHouse/Admin automatically displays the system time in the status bar.
SHOW USER	StorHouse/Admin automatically displays user session defaults in the status bar.
SHOW VOLUME	On the Storage menu, point to Volume and then click Search.
SHOW VOLUME / EXPIRED	On the Storage menu, point to Volume and then click Free Expired.
SHOW VSET	Click the VSETs folder.
SHUTDOWN	On the Interactive StorHouse Command Language (ISCL) working window, type the command.
SIGNOFF	Close StorHouse/Admin.
STAGE	On the Storage menu, point to File and then click Search. In the File Search Criteria dialog box, type the name of the file in the File name box and click Find. In the Files list, right-click the file and then click Stage.
UNCATALOG VOLUME	On the Storage menu, point to Volume and then click Search. In the Volume Search Criteria dialog box, type the ID of the volume in the Volume ID box and click Find. In the Volumes list, right-click the volume and then click Uncatalog.
UNCATALOG VSET	Click the VSETs folder. In the Volume Sets list, right-click the volume set and then click Uncatalog.



Table A-1: Command Language commands (continued)

Command	Where to submit in StorHouse/Admin GUI
UNDELETE	On the Storage menu, point to File and then click Search. In the File Search Criteria dialog box, type the name of the file in the File name box and click Find. In the Files list, right-click the file and then click Undelete.
UNLOCK	On the Storage menu, point to File and then click Search. In the File Search Criteria dialog box, accept * in the File ID box and select the Locked check box. Click Find. In the Locked Files list, right-click the file you want to unlock and click Unlock.
UP DEVICE	Expand the Devices folder. Click the folder that contains the device you want to bring up. In the Devices list, right-click the device and then click Bring Up.
VALIDATE VOLUME	On the Storage menu, point to Volume and then click Search. In the Volume Search Criteria dialog box, type the ID of the volume in the Volume ID box and click Find. In the Volumes list, right-click the volume and then click Validate.

A P P E N D I X

B



Privileges for system administration tasks

This appendix tells you the account (access and command) privileges you need to perform StorHouse/Admin system administration tasks. Tasks are grouped by functional area. The privileges listed here are in addition to the basic account privileges you need to access StorHouse/Admin, which are described in “Minimum StorHouse account privileges to use StorHouse/Admin” on page 1-16.



Table B-1: Privileges for system administration tasks

Task	Required privileges
Accounts	
Changing a StorHouse account	ACCOUNT, ANYACCOUNT, and SETGROUP
Changing an account password	ACCOUNT, ANYACCOUNT, PASSWORD, and SETGROUP
Cloning a StorHouse account	ACCOUNT, ANYACCOUNT, and SETGROUP
Copying account defaults to the clipboard	None
Copying a StorHouse account	ACCOUNT, ANYACCOUNT, and SETGROUP
Creating a StorHouse account	ACCOUNT, ANYACCOUNT, and SETGROUP
Disabling a StorHouse account	ACCOUNT, ANYACCOUNT, and SETGROUP
Displaying information about a StorHouse account	ACCOUNT and ANYACCOUNT
Enabling a StorHouse account	ACCOUNT, ANYACCOUNT, and SETGROUP
Listing StorHouse accounts	None
Printing a list of accounts	None
Removing a StorHouse account	ACCOUNT and ANYACCOUNT
Temporarily changing default values for an account	SETGROUP
Devices	
Bringing up a StorHouse device	OPERATOR
Changing a device mode	OPERATOR
Displaying a device diagram	None



Table B-1: Privileges for system administration tasks (continued)

Task	Required privileges
Displaying information about a StorHouse device in grid or graphical form	None
Monitoring device activity, including status and mode	None
Taking down a StorHouse device	OPERATOR
File access groups	
Changing reserved space for a file access group	SYSTEM
Changing your account's default file access group	SETGROUP (and SYSTEM to create reserved space)
Creating a file access group	GROUP
Listing file access groups	None
Printing a list of file access groups	None
Removing a file access group	GROUP
File sets	
Changing file set attributes	ALLOCATION and SYSTEM
Changing the size of the performance buffer file set	ALLOCATION and SYSTEM
Changing your account's default file set	SETGROUP
Cloning a file set	ALLOCATION
Copying file set properties to the clipboard	None
Creating additional Level F file sets	ALLOCATION
Creating a Level L file set	ALLOCATION
Displaying information about a file set	None
Displaying information about file set partitions	None



Table B-1: Privileges for system administration tasks (continued)

Task	Required privileges
Listing file sets in a volume set or in the system	None
Printing a list of file sets	None
Releasing free storage from a file set	ALLOCATION and SYSTEM
Messages	
Receiving a user message	None
Responding to a user or operator message	None (PC must be enabled as an operator workstation)
Sending a user message	MESSAGE
Viewing operator messages	None
Scheduled events	
Displaying scheduled events	None
Editing scheduled events	SCHEDULE
Printing a list of scheduled events	None
Removing scheduled events	SCHEDULE
Scheduling events	SCHEDULE
Scripts	
Executing scripts	Privileges for command issued
Logging script commands to a file	None
Writing scripts	None
StorHouse/Admin logs	
Logging Command Language command results to a file	None
Logging diagnostics output to a file	None
Logging script commands to a file	None
Logging task results to a file	None



Table B-1: Privileges for system administration tasks (continued)

Task	Required privileges
StorHouse Command Language commands	
Submitting commands	Privileges for command issued
Logging Command Language command results to a file	None
StorHouse logs	
Closing current logs and opening new logs	SYSTEM
System activity	
Canceling a system reservation	OPERATOR or SYSTEM
Reserving the system	OPERATOR or SYSTEM
Shutting down the system	OPERATOR
System and directory files	
Checkpointing system files	SYSTEM
Extracting directory files	SETGROUP, SYSTEM, and VTF
Previewing directory files to restore	SYSTEM
Recovering system files	SYSTEM
Restoring directory files	SYSTEM
System parameters	
Displaying system parameter values	SYSTEM
Printing a list of system parameter values	SYSTEM
Setting system parameters	SYSTEM
System statistics	
Displaying system and usage statistics	None
Holding system statistics	None
Monitoring system performance and usage	None



Table B-1: Privileges for system administration tasks (continued)

Task	Required privileges
Monitoring user activity	None
Resetting system statistics	SYSTEM
User files	
Archiving user files	SYSTEM
Backing up user files	SYSTEM
Changing user file attributes and values	ATF, DELETE, FILE, SETGROUP, and VTF (SYSTEM is required to specify the NOREPLICATED attribute)
Copying a file name to the clipboard	SETGROUP
Copying file properties to the clipboard	None
Copying files from a PC to StorHouse	PUT
Copying files from StorHouse to a PC	GET
Deleting a user file	DELETE and SETGROUP
Displaying information about a user file	SETGROUP
Duplexing user files	SYSTEM
Enabling a disabled file	FILE
Listing all files in a file set, volume set, or on a volume	SETGROUP
Listing file extents	SETGROUP
Listing locked files	LOCK or FILE
Locking a user file	LOCK
Migrating files from one volume set to another	SYSTEM
Migrating files from the performance buffer	SYSTEM
Moving files from a PC to StorHouse	PUT



Table B-1: Privileges for system administration tasks (continued)

Task	Required privileges
Moving files from StorHouse to a PC	GET
Printing a list of locked files	LOCK or FILE
Printing a list of files	SETGROUP
Purging older versions of user files	DELETE, SETGROUP, and SYSTEM
Recovering user files	COPY
Relinking the primary copy of a user file with a backup or archive copy	FILE
Relocating a user file	COPY, SETGROUP, and SYSTEM
Removing user files	SYSTEM
Replicating user files	SYSTEM (and SET GROUP to specify file access group)
Staging user files	COPY
Undeleting a user file	DELETE and SETGROUP
Unlocking a user file	LOCK or FILE
Writing back new user file extents	SYSTEM
Volume sets	
Adding a memo for a volume set	OPERATOR (for Move VSET dialog box) ALLOCATION and SYSTEM (for Set VSET dialog box)
Cataloging a volume set	ALLOCATION and SYSTEM
Changing a memo for a volume set	OPERATOR (for Move VSET dialog box) ALLOCATION and SYSTEM (for Set VSET dialog box)
Changing volume set attributes	ALLOCATION and SYSTEM
Changing your account's default volume set	SETGROUP
Cloning a volume set	ALLOCATION



Table B-1: Privileges for system administration tasks (continued)

Task	Required privileges
Copying volume set properties to the clipboard	None
Creating a volume set	ALLOCATION
Displaying a memo for a volume set	None
Displaying information about a volume set	None
Erasing a volume set	ALLOCATION and SYSTEM
Exporting a volume set	ALLOCATION and SYSTEM
Importing a volume set	ALLOCATION and SYSTEM
Listing all volume sets in the system or with a specific memo	None
Moving a volume set within a StorHouse system	OPERATOR
Printing a list of volume sets	None
Releasing empty volumes from a volume set	ALLOCATION and SYSTEM
Setting a volume set's HOLD attribute	ALLOCATION and SYSTEM
Uncataloging a volume set	ALLOCATION and SYSTEM
Volumes	
Adding a memo for a volume	OPERATOR (for Move Volume dialog box) ALLOCATION and OPERATOR (for Set Volume dialog box)
Changing a memo for a volume	OPERATOR (for Move Volume dialog box) ALLOCATION and OPERATOR (for Set Volume dialog box)
Changing volume attributes	ALLOCATION and OPERATOR
Copying a volume ID to the clipboard	None
Copying volume properties to the clipboard	None



Table B-1: Privileges for system administration tasks (continued)

Task	Required privileges
Customizing volume labels	SYSTEM
Disabling a volume	ALLOCATION and OPERATOR
Displaying a memo for a volume	None
Displaying information about a volume	None
Enabling a volume	ALLOCATION and OPERATOR
Erasing a volume	ALLOCATION and SYSTEM
Exporting all uncataloged volumes in a volume set	ALLOCATION and SYSTEM
Exporting a volume	ALLOCATION and SYSTEM
Importing a volume	ALLOCATION and SYSTEM
Listing all volumes in the system, those associated with specific files, or those with a specific memo	None
Migrating blank volumes into a StorHouse system	SYSTEM
Moving a volume within a StorHouse system	OPERATOR
Previewing volumes for recovery	ALLOCATION and SYSTEM
Printing a list of volumes	None
Recovering volumes	ALLOCATION and SYSTEM
Reinitializing and reusing erasable, removable volumes	ALLOCATION and SYSTEM
Retiring a volume	ALLOCATION and SYSTEM
Returning expired volumes to the free pool	ALLOCATION and SYSTEM
Setting a volume's HOLD attribute	ALLOCATION and OPERATOR
Setting up automatic blank volume migration	SYSTEM



Table B-1: Privileges for system administration tasks (continued)

Task	Required privileges
Uncataloging a volume	ALLOCATION and SYSTEM
Unwritelocking a volume	ALLOCATION and OPERATOR
Validating a volume	SYSTEM
Writelocking a volume	ALLOCATION and OPERATOR
Miscellaneous	
Enabling the Diagnostics feature	None
Accessing the Help system	None



Privileges for database administration tasks

This appendix tells you the account privileges you need to perform StorHouse/Admin database administration tasks. Tasks are grouped by functional area. The privileges listed here are in addition to the basic account privileges you need to access StorHouse/Admin, which are described in “Minimum StorHouse account privileges to use StorHouse/Admin” on page 1-16. (These minimum privileges include SQLEXECUTE for StorHouse/RM.)

StorHouse accounts that use StorHouse/Admin to perform system and database administration tasks for StorHouse/RM require the privileges listed in Table C-1.



Table C-1: Privileges for database administration tasks

Task	Access or command privileges	Database or component privileges
Databases		
Archive/purge a database journal	OPERATOR or SERVICE or SYSTEM	None
Create a StorHouse database	SQLADMIN	None
Cycle a database journal	OPERATOR or SERVICE or SYSTEM	None
Display the size of user data in a database	None	DBA
Enable journaling for an unjournalized database	OPERATOR or SERVICE or SYSTEM	None
List StorHouse databases	None	None
Perform database integrity tests	None	DBA or RESOURCE
Purge a database journal	OPERATOR or SERVICE or SYSTEM	None
Accounts		
List RM-enabled accounts in a database	SHOACCOUNT	None
List database components owned by an account	SHOACCOUNT	DBA
List database component privileges for an account	SHOACCOUNT	DBA
Grant database privileges	SHOACCOUNT	DBA



Table C-1: Privileges for database administration tasks (continued)

Task	Access or command privileges	Database or component privileges
Grant database component privileges	SHOACCOUNT	DBA or component owner
Revoke database privileges	SHOACCOUNT	DBA
Assign a default user tablespace to an account	SHOACCOUNT	DBA
Revoke database component privileges	SHOACCOUNT	DBA or component owner
User tablespaces		
Create a user tablespace	None	DBA
Assign a default user tablespace	None	DBA or INSERT on SYSSMUSERS
Alter a user tablespace	None	DBA
List user tablespaces in a database	None	DBA or SELECT on SYSSMSPACE
List user tables assigned to a user tablespace	None	DBA or SELECT on SYSTABLES and SYSTBLSPACES
List default user tablespaces for accounts	SHOACCOUNT	DBA or SELECT on SYSSMUSERS
Change a default user tablespace	None	DBA or UPDATE on SYSSMUSERS
Drop a user tablespace	None	DBA



Table C-1: Privileges for database administration tasks (continued)

Task	Access or command privileges	Database or component privileges
User tables		
Create a user table	None	DBA or RESOURCE
Clone a user table	None	DBA or RESOURCE
Copy a user table and indexes in the same database	None	DBA or RESOURCE
Copy a user table and indexes between databases	None	DBA or RESOURCE in both databases
Export DDL	None	DBA or RESOURCE
List user tables in a database	None	DBA or SELECT on SYSTABLES
Display the size of a user table	SETGROUP	DBA or SELECT on SYSTABLES
Display column definitions	None	DBA or SELECT on SYSCOLUMNS
List account privileges for a user table	SHOACCOUNT	DBA or SELECT on SYSTABLES and SYSTABAUTH
List all columns in a database	None	DBA or SELECT on SYSCOLUMNS
List tables and indexes in a volume set	SETGROUP	None
Drop a user table	None	DBA or table owner



Table C-1: Privileges for database administration tasks (continued)

Task	Access or command privileges	Database or component privileges
Indexes		
Create an index	None	DBA or RESOURCE or table owner or INDEX on the table
List indexes for a user table	None	DBA or SELECT on SYSTABLES and SYSINDEXES
List indexes in a database	None	DBA or SELECT on SYSINDEXES
Drop an index	None	DBA or RESOURCE or table owner or INDEX on the table
Segments		
Archive a segment	SYSTEM and either SETGROUP or read access to the group	DBA
Schedule an archive for a segment	SYSTEM, SCHEDULE, and either SETGROUP or read access to the group	DBA
Edit a scheduled archive for a segment	SYSTEM, SCHEDULE, and either SETGROUP or read access to the group	DBA
Remove a scheduled archive for a segment	SYSTEM, SCHEDULE, and either SETGROUP or read access to the group	DBA
Back up a segment	SYSTEM and either SETGROUP or read access to the group	DBA



Table C-1: Privileges for database administration tasks (continued)

Task	Access or command privileges	Database or component privileges
Schedule a backup for a segment	SYSTEM, SCHEDULE, and either SETGROUP or read access to the group	DBA
Edit a scheduled backup for a segment	SYSTEM, SCHEDULE, and either SETGROUP or read access to the group	DBA
Remove a scheduled backup for a segment	SYSTEM, SCHEDULE, and either SETGROUP or read access to the group	DBA
Change the archived status of a segment	FILE, DELETE, and either SETGROUP or read access to the group	DBA
Change the BACKUP attribute of a segment	FILE, DELETE, and either SETGROUP or read access to the group	DBA
Change the ATF attribute of a segment	FILE, ATF, and either SETGROUP or read access to the group	DBA
Change the VTF attribute of a segment	FILE, VTF, and either SETGROUP or read access to the group	DBA
Relink the primary copy of a segment file with an archive or backup copy	FILE and either SETGROUP or read access to the group	DBA
Invalidate a segment	SETGROUP or read access to the group	DBA
Revalidate a segment	SETGROUP or read access to the group	DBA
Display segment file properties	SETGROUP or read access to the group	DBA



Table C-1: Privileges for database administration tasks (continued)

Task	Access or command privileges	Database or component privileges
List segment files in a user table	SETGROUP or read access to the group	DBA
List extents in a segment file	SETGROUP or read access to the group	DBA
Display low and high values in a segment	SETGROUP or read access to the group	DBA
Delete an invalid segment	DELETE and either SETGROUP or read access to the group	DBA
Delete multiple invalid segments based on criteria	DELETE and either SETGROUP or read access to the group	DBA or table owner
Views		
Create a view	None	DBA or RESOURCE and SELECT on all tables the view references
Alter a view	None	DBA
List views in a database	None	DBA or SELECT on SYSVIEWS
List account privileges for views	SHOACCOUNT	DBA or SELECT on SYSTABAUTH
Drop a view	None	DBA or view owner
Synonyms		
Create a private synonym	None	DBA or RESOURCE
Create a public synonym	None	DBA



Table C-1: Privileges for database administration tasks (continued)

Task	Access or command privileges	Database or component privileges
List synonyms in a database	None	DBA or SELECT on SYSSYNONYMS
Drop a synonym	None	DBA or synonym owner
Metadata		
Back up metadata	OPERATOR or SERVICE or SYSTEM	None
Schedule a metadata backup	SCHEDULE and either OPERATOR or SERVICE or SYSTEM	None
Edit a scheduled metadata backup	SCHEDULE and either OPERATOR or SERVICE or SYSTEM	None
Remove a scheduled metadata backup	SCHEDULE and either OPERATOR or SERVICE or SYSTEM	None
List metadata backup files	None	None
List system tables in a database	None	DBA or SELECT on SYSTABLES
Display column definitions of a system table	None	DBA or SELECT on SYSTABLES AND SYSCOLUMNS
List the index of a system table	None	DBA or SELECT on SYSTABLES and SYSINDEXES
Export the contents of a system table	None	DBA or RESOURCE
Export the DDL of a system table and index	None	DBA or RESOURCE



Table C-1: Privileges for database administration tasks (continued)

Task	Access or command privileges	Database or component privileges
List account privileges for a system table	SHOACCOUNT	DBA or SELECT on SYSTABLES and SYSTABAUTH
ISQL		
Use the StorHouse/ Admin ISQL tool	None	DBA or RESOURCE



Appendix C - Privileges for database administration tasks

I N D E X



A

accounts

- creating 5-12
- printing list 5-17
- privileges for StorHouse/Admin 1-16

activating the Diagnostics feature 3-6

active module pane 2-5

Add Subspace dialog box 6-7

administration task privileges B-1

applications on selection bar 2-5

archive volume set 5-5

B

backing up user table segments 6-23

Backup dialog box 6-24

backup volume set 5-5

C

CC client xvi

CC module 2-4

CC server xvi

closing current StorHouse logs and opening new ones 5-22

closing windows

ISCL 2-21

ISQL 2-23

Script 2-27

Task 2-25

columns

listing definitions 6-21

sorting 4-3

Command Language commands

list A-1

submitting 5-32

Command Language log for StorHouse/Admin 3-7

commands

list A-1

submitting 5-32

configuration for StorHouse/Control Center xvii

configuring a data source 3-2

StorHouse/Control Center

description xvi

desktop shortcut 2-2



Index

- exiting 2-30
- modules 2-4
- sample configuration xvii
- splash window 2-3
- starting 2-2
- stopping 2-30
- version number 2-9
- Create Account dialog box 5-13
- Create Database dialog box 6-3
- Create FSET dialog box 5-8
- Create Group dialog box (5.2) 5-11
- Create Group dialog box (5.3+) 5-11
- Create Index dialog box 6-16
- Create Table dialog box 6-12
- Create Tablespace dialog box 6-6
- Create VSET dialog box 5-3
- creating
 - archive volume set 5-5
 - backup volume set 5-5
 - database 6-2
 - file access group 5-10
 - index for a user table 6-15
 - level L file set 5-7
 - level L volume set 5-2
 - primary volume set 5-6
 - reports from lists 4-6
 - shortcut for data source 3-3
 - StorHouse account 5-12
 - user table 6-11
 - user tablespace and its subspaces 6-4
- D**
- data source
 - configuring 3-2
 - definition 2-4
 - shortcut 3-3
- database
 - administration task privileges B-1
 - administration tutorial 6-1
 - creating 6-2
 - granting privileges 6-17
 - integrity tests 6-27
 - names 6-2
 - revoking privileges 6-18
- definitions
 - active module pane 2-5
 - data source 2-4
 - event 5-20
 - maximum buffer size 3-5
 - StorHouse resource 2-11
 - subspace 6-4
 - user tablespace 6-4
 - working window 2-5
 - working window list 2-5
- descriptions
 - CC client xvi
 - CC server xvi
 - StorHouse/Control Center xvi
 - StorHouse xvi
- desktop shortcuts
 - StorHouse/Control Center 2-2
 - StorHouse/Admin 2-2
- device statistics 2-17
- device status grid 2-16
- device statuses
 - displaying 5-26
 - list 5-26
- device usage pie chart 5-29
- Diagnostics
 - feature, activating 3-6
 - log for StorHouse/Admin 3-8
 - tool bar 2-29
 - working window 2-28
- dialog boxes
 - Add Subspace 6-7
 - Backup 6-24

- Create Account 5-13
 - Create FSET 5-8
 - Create Group (5.2) 5-11
 - Create Group (5.3+) 5-11
 - Create Index 6-16
 - Create Table 6-12
 - Create Tablespace 6-6
 - Create VSET 5-3
 - Enter Passwords 5-14
 - File Properties 5-17
 - LOB Storage Options 6-14
 - Metadata Backup 6-26
 - New Log 5-23
 - Schedule 5-21
 - System Configuration 5-19
 - directories for
 - logs 3-5
 - script results 3-5
 - StorHouse files copied or moved to PC 3-5
 - displaying
 - device statuses 5-26
 - device usage pie chart 5-29
 - selected report pages 4-7
 - user file properties 5-15
 - dropping a user table 6-22
- E**
- enabling the operator workstation 3-4
 - Enter Passwords dialog box 5-14
 - error messages 2-15
 - event
 - definition 5-20
 - scheduling 5-20
 - exiting
 - StorHouse/Control Center 2-30
 - StorHouse/Admin 2-30
 - expanded messages area on StorHouse
 - Status window 2-18
 - exporting lists 4-5
- F**
- fatal error messages 2-15
 - features of StorHouse/Admin 1-2
 - file access groups, creating 5-10
 - File Properties dialog box 5-17
 - file properties, displaying 5-15
 - file sets, creating 5-7
 - filtering lists 4-4
 - folder contents area 2-13, 4-3
 - folder list 2-12, 4-2
 - framework menu 2-4
- G**
- granting database privileges 6-17
- H**
- help, online xx
 - holding system statistics 2-19
- I**
- indexes
 - creating 6-15
 - listing 6-19
 - information messages 2-15
 - integrity tests for databases 6-27
 - invoking a metadata backup 6-25
- ISCL**
- status bar 2-21
 - tool bar 2-21
 - working window 2-19
- ISQL**
- tool bar 2-23
 - working window 2-22



L

- level L file set, creating 5-7
- level L volume set, creating 5-2
- listing
 - column definitions 6-21
 - indexes on a table 6-19
 - tables in a database 6-19
- lists
 - creating reports from 4-6
 - exporting 4-5
 - filtering 4-4
 - saving as reports 4-7
- loading a saved report 4-8
- LOB Storage Options dialog box 6-14
- logging
 - Command Language command results 3-7
 - diagnostics output 3-8
 - script command results 3-9
 - SQL statements 3-7
 - StorHouse/Admin information 3-6
 - task results 3-8
- Login dialog box 2-6
- logs for StorHouse, closing and opening 5-22
- logs for StorHouse/Admin
 - Command Language 3-7
 - diagnostics 3-8
 - script command 3-9
 - SQL statements 3-7
 - task 3-8

M

- main working windows 2-7
- maximum buffer size, setting 3-5
- menu bar 2-7
- message types

- error 2-15
 - fatal error 2-15
 - information 2-15
 - warning 2-15
- messages (operator), responding 5-30
- Metadata Backup dialog box 6-26
- metadata, backing up 6-25
- minimum StorHouse account
 - privileges for StorHouse/Admin 1-16
- minimum StorHouse releases for StorHouse/Control Center xvii
- modes for devices 5-26
- monitoring system performance statistics 5-24

N

- names for databases 6-2
- network connectivity xvi
- New Log dialog box 5-23
- notational conventions xx

O

- online documentation 2-4
- online help xx
- opening windows
 - Diagnostics 2-28
 - ISCL 2-20
 - ISQL 2-22
 - Script 2-27
 - StorHouse Resources 2-11
 - StorHouse Status 2-14
 - Task 2-25
- operating system platforms xvi
- operator messages
 - on StorHouse Status window 2-14
 - responding 5-30

- types 2-15
- operator workstation, enabling 3-4

P

- passwords for files and file access
 - groups 1-15
- performance statistics
 - displaying 2-18
 - holding 2-19
 - monitoring 5-24
 - resetting 2-19
- performing a database integrity test 6-27
- pie chart for device usage 5-29
- preferences for StorHouse/Admin 3-4
- primary volume set 5-6
- printing
 - accounts 5-17
 - reports 4-7
- privileges
 - for database administration tasks C-1
 - for system administration tasks B-1
 - granting 6-17
 - revoking 6-18
 - to use StorHouse/Admin 1-16
- properties of a user file 5-15

R

- related documentation xix
- reports
 - creating from lists 4-6
 - displaying selected pages 4-7
 - loading saved 4-8
 - printing 4-7
 - saving 4-7
 - zooming 4-7

- resetting system statistics 2-19
- resource usage
 - limits 3-4
 - pie chart 2-17
- responding to operator messages 5-30
- revoking database privileges 6-18
- running a database integrity test 6-27

S

- saving reports 4-7
- Schedule dialog box 5-21
- scheduling an event 5-20
- script command log for StorHouse/Admin 3-9
- Script working windows 2-26
- selection bar 2-4
- setting
 - maximum buffer size 3-5
 - resource usage limits 3-4
 - system parameters 5-18
 - time to wait for a CC response 3-6
- setting up
 - directory for logs 3-5
 - directory for script results 3-5
 - directory for StorHouse files copied or moved to PC 3-5
 - StorHouse/Admin 3-1
 - StorHouse/Admin logging 3-6
- shortcut
 - adding and deleting 2-4
 - for a data source 3-3
- sorting columns 4-3
- special considerations for selected StorHouse features 1-14
- splash window for StorHouse/Control Center 2-3
- SQL statement log for StorHouse/Admin 3-7



- starting StorHouse/Admin 2-2
 - Statistics categories list 2-19
 - statistics, monitoring 5-24
 - status bar
 - ISCL working window 2-21
 - StorHouse/Admin 2-10
 - task windows 2-26
 - statuses for devices 5-26
 - stopping
 - StorHouse/Control Center 2-30
 - StorHouse/Admin 2-30
 - StorHouse accounts
 - creating 5-12
 - StorHouse Command Language
 - commands
 - list A-1
 - submitting 5-32
 - StorHouse logs, closing current and opening new 5-22
 - StorHouse resource, definition 2-11
 - StorHouse Resources working window 2-11
 - StorHouse Status working window 2-13
 - StorHouse/Admin
 - desktop shortcut 2-2
 - exiting 2-30
 - features 1-2
 - logging information 3-6
 - menu bar 2-7
 - minimum account privileges 1-16
 - setting preferences 3-4
 - setting up 3-1
 - starting 2-2
 - status bar 2-10
 - stopping 2-30
 - tool bar 2-9
 - version number 2-8
 - StorHouse/RM
 - description xvi
 - tasks 1-9
 - StorHouse/SM
 - description xvi
 - tasks 1-3
 - submitting StorHouse Command Language commands 5-32
 - subspace
 - creating 6-4
 - definition 6-4
 - system administration tutorial 5-1
 - system administrator task privileges B-1
 - System Configuration dialog box 5-19
 - system parameter, setting 5-18
 - system performance and usage statistics
 - displaying 2-18
 - holding 2-19
 - monitoring 5-24
 - resetting 2-19
- ## T
- table segments, backing up 6-23
 - tables in a database, listing 6-19
 - tabs on selection bar
 - Applications 2-5
 - CC modules 2-4
 - Online docs 2-4
 - task log for StorHouse/Admin 3-8
 - Task working windows 2-24
 - tasks you can perform in StorHouse/
 - Admin 1-3
 - tool bars
 - Diagnostics 2-29
 - ISCL 2-21
 - ISQL 2-23
 - StorHouse/Admin 2-9
 - tutorials
 - database administration 6-1

system administration 5-1

Task 2-24

U

usage limits for resources 3-4

user file properties, displaying 5-15

user table

creating 6-11

dropping 6-22

user table segments, backing up 6-23

user tablespace

creating 6-4

definition 6-4

V

version number

StorHouse/Control Center 2-9

StorHouse/Admin 2-8

volume set

archive 5-5

backup 5-5

creating 5-2

primary 5-6

W

warning messages 2-15

where to submit Command Language

commands A-1

working windows

definition 2-5

Diagnostics 2-28

ISCL 2-19

ISQL 2-22

list 2-5

main 2-7

Script 2-26

StorHouse Resources 2-11

StorHouse Status 2-13

Z

zooming reports 4-7