

Introduction

The Model 4200-SCS is built on a PC architecture, using the Microsoft® Windows® operating system. It includes a motherboard containing the main processor and RAM, physical hard drive, CD drive, floppy disk drive, and other typical PC hardware elements. This architecture provides many advantages, including ease of use, built-in Windows tools and utilities, and extensive local file-storage space. However, PC architecture calls for PC precautions. This release note describes recommendations for software and data preservation. The recommendations apply to any 4200-SCS unit that meets the following criteria:

- Was produced before or during Spring, 2003.
- Runs Windows NT 4.0.
- Runs KTE Interactive software up to and including version 4.3.2.

Protecting software integrity

The Model 4200-SCS has been designed and thoroughly tested for maximum system stability, reliability, and performance *in the factory-standard configuration*. To protect the system software, observe the following tips:

- In Chapter 10 of the Reference Manual, review the “Approved third party software” subsection, which lists software that a qualified system administrator may install on the 4200-SCS without affecting warranty coverage. If you absolutely must use software that is not on this list, exercise caution. Untested/unapproved software installed on the system hard drive may compromise system stability.
- Protect the system from viruses, which can reach the system via the facility network. (Note that Norton Antivirus 2000 is one of the Keithley-approved programs.)
- Certain software tools that come standard with the 4200-SCS, such as FAZAM (Full Armor Zero Administration) and Diskeeper, can help preserve software integrity. Be sure to use these tools after properly configuring them.
- Do not attempt to format the system hard drive or reinstall the operating system. Though you may be able to successfully uninstall and reinstall some types of software on the 4200-SCS, you *cannot* successfully reformat the hard drive or reinstall the operating system. Attempting to do so will make the system inoperative and require factory repair.

Protecting user file integrity

There is a small but finite risk that the hard drive will fail sometime during the useful life of the 4200-SCS, regardless of how well it has been cared for. Therefore, Keithley recommends backup — periodically saving the latest copy of the data on an external storage device — as the best way to preserve user application files and measurement data.

Choosing the files to be backed up

Keithley recommends backing up the following files and directories, where applicable:

- **The default user directory**
When a Model 4200-SCS is received from the factory, the `C:\S4200\kiuser` directory contains all installed test results and user application files — KITE projects, device libraries, test libraries, and

KULT libraries. Subsequently, the 4200-SCS stores user-created data and application files in this same directory by default. Therefore, unless a system user or administrator has created new, independent user directories, you need only to back up C:\S4200\kiuser directory to preserve all test results and user application files.

NOTE Avoid selective backups of C:\...\data subfolders, such as C:\S4200\kiuser\Projects\default\tests\data. Such backups do not preserve the additional application files that are needed to restore the associated test setups/conditions.

- **Independent user directories**

If a system user or administrator has created new, independent user directories, back up those directories as well. C:\S4200\Johns_tests and C:\S4200\Janes_tests are examples of such directories.

- **Special data files and directories**

Finally, back up any additional, specialized data files or directories, such as the following:

- A file into which a User Test Module (UTM) automatically places test results. For example, a UTM could be programmed to put results into C:\TestData\test001.dat.
- A file that results from manual processing of data using Microsoft Excel.

NOTE It is possible to back up virtually the entire hard drive¹. However, the 4200-SCS system files and application program files will occupy a large portion of the storage and may not be properly recoverable unless backed up using special software. Such backups may be justifiable only if the user directory structure is too complex for selective backup and when storage space is plentiful.

You cannot back up files in that are normally in use — for example, certain system files — without special backup software. Before considering use of such software, review the precautions in “Protecting software integrity.”

Choosing the method of backup

A variety of internal and external storage options exist for backing up data. In all cases, needed storage capacity is the primary selection criterion, followed by media cost, read/write speed, and specific data accessibility. Table 4-1 lists some of the more popular options for the 4200-SCS.

Table 4-1
Common backup storage options for the 4200-SCS

Size of file/ folder to be backed up*	Appropriate backup storage device	Storage medium
<1.44MB	The internal floppy drive in the 4200-SCS	3.5" high-density floppy disks (diskettes)
<100MB	External parallel-port Zip drive, 100MB	100MB Zip disks
<250MB	External parallel-port Zip drive, 250MB	100MB or 250MB Zip disks
<700MB	Internal CD-RW (compact disk read-write) drive, if available on your 4200-SCS unit	CD-R (one-time writable) or CD-RW (rewritable) compact disks
Up to several GB	External tape drive	Tape cartridge
	Network server	None, locally

*Including the size of the file allocation table that must be placed on the media. Therefore, the useful file-storage capacity of a given type of storage medium is a bit less than the rated size.