CHAPTER

1

Moving and Accessing SAS Files between Hosts

When to Move a SAS File between Hosts

Moving SAS files between hosts is a common work task. Reasons for moving a SAS file between hosts include:

- To migrate SAS files (data and applications) to a new SAS release between two hosts in order to take advantage of new Version 8 SAS features.

- To move SAS files to a new operating environment; for example, to migrate OpenVMS VAX files to an OpenVMS Alpha operating environment.

- To move a file and its processing to a high-performance host that will be returned to the requesting host.

- To make a static copy of a SAS file available to a physically separate operating environment for continued data processing. Files are duplicated for use in the receiving host environment because the SAS files are not available to the receiving host by means of NFS-mounted file systems.

In all of these scenarios, the move operations recognize differences between host architectures and SAS releases, allowing the original files to be used in the receiving host environment.

When to Access a SAS File on a Remote Host

In some instances, accessing rather than owning and maintaining your own copy of a file may be preferable. Alternatively, you may need to read data from a locally mounted tape that was created elsewhere, or you may need to read, write, or update data that is remotely mounted on your network. Your host (source host) from which you access the data and the remote data or the locally mounted tape that contains the data (remote host) may share a common or different architecture and may run the same version or a different version of SAS.

Note: Do not confuse the term *access* with the product SAS/ACCESS. In the context of this book, *access* means to reach and use SAS files. SAS/ACCESS enables

users to use third-party DBMS files. For a list of products that SAS/ACCESS supports, see "Third-Party DBMS Files That Cannot Be Moved" on page 11. △

You can use these methods to access remote SAS files:

□ use SAS/SHARE on your client to access a remote SAS file that resides on a host on which a SAS/SHARE server runs. The client and server hosts may share a common or a different architecture. Also, the SAS release that the client and the server hosts run may be the same or different. SAS/SHARE facilitates a transparent concurrent access to remote data among multiple users. Restrictions apply to cross-release access of SAS data.

In addition, SAS/SHARE enables you to access certain third-party DBMS files by means of engines that SAS/ACCESS supports.

Note: You must have a separate license for SAS/SHARE. △

□ use Version 8 features of CEDA (Cross-Environment Data Access) that allow read and write access to selected SAS files by means of third-party network communications products NFS (Network File Services) or FTP (File Transfer Protocol).

Note: Because CEDA is bundled with SAS/CONNECT, you must have a SAS/CONNECT license to use it. △

□ without the aid of SAS/SHARE or CEDA, you can rely upon network services for access to remote files (both SAS files and third-party DBMS files). Usually, the local host and the remote host must share a compatible architecture and they must run the same SAS release. The operating environment, the network software, and the security software may control users' permissions to access specific remote files. For more information, see the SAS companion that is appropriate to your operating environment and see the third-party documentation for the network software and security software.

Host Types Supported According to SAS Release

Methods for moving and accessing a SAS file support these operating environments according to release:

Table 1.1   Supported Operating Environments and SAS Releases

Supported Operating Environments	SAS Versions and Releases							
	8	**7**	**6.12**	**6.11**	**6.10**	**6.09**	**6.08**	**6.07**
CMS	•	•				•	•	•
Macintosh			•		•			
OpenVMS VAX	•	•				•	•	•
OpenVMS Alpha	•	•	•			•		
OS/2	•	•	•	•	•			
OS/390 (formerly MVS)	•	•				•	•	•
UNIX[1]	•	•	•	•	•	•		
VSE							•	•

Supported Operating Environments	SAS Versions and Releases							
	8	7	6.12	6.11	6.10	6.09	6.08	6.07
Windows 95	•	•	•	•	•			
Windows 98	•							
Windows NT	•	•	•	•	•	•		
Windows 32s			•	•	•			

[1] For a detailed list of types of UNIX hosts that SAS releases support, see Table 1.2 on page 5.

CAUTION:
This document includes information for SAS Release 6.07 through Version 8. It does not include information for SAS releases prior to 6.07. For information about moving a file to or from a release that precedes Release 6.07, see *SAS Technical Report P-195, Transporting SAS Files between Host Systems.* △

CAUTION:
Version 8 does not support the Macintosh, the VSE, or the Windows 32s hosts. Any of these hosts can serve as a source host from which you move a Version 6 file. However, none of these hosts can serve as a target host for receiving a Version 8 file. △

Table 1.2 Supported UNIX Operating Environments and SAS Releases

UNIX Host Types	SAS Versions and Releases					
	8	7	6.12	6.11	6.10	6.09
AIX	•	•	•	•		•
HP-UX	•	•	•	•		•
Tru64 UNIX[1]	•	•	•	•	•	
Solaris	•	•	•	•		•
Intel ABI	•[2]			•	•	
SGI[3]	•					
Sun			•	•		•
MIPS ABI[4]				•	•	
ULTRIX						•

[1] Tru64 UNIX was previously referred to as COMPAQ Digital UNIX.

[2] refers to NCR MP/RAS, UnixWare, Sequent Dynix/Ptx, and Solaris for Intel.

[3] SGI (Silicon Graphics) was formerly included in the MIPS ABI architectural group, which SAS supported only in SAS Releases 6.10 and 6.11.

[4] MIPS ABI groups these architectures: AIX, HP-UX, and Solaris.

Avoiding and Fixing Problems

For guidelines to avoid problems that can occur during the move process between any hosts, see Chapter 15, "Preventing and Fixing Problems," on page 103. This appendix

also provides recovery actions for typical transport-related SAS error and warning messages. For host-specific warning and error messages, see the chapter that is appropriate to your host in Part 5.

Navigating Related Documents in the SAS Documentation Set

You may consult related SAS documents for background information about a topic and for complete descriptions of SAS statement and procedure syntax. Here are the recommended related SAS documents :

SAS Language Reference: Concepts
provides information about converting SAS files to a new SAS release on the same host. Also, it describes Version 8 features.

SAS Language Reference: Dictionary
provides portable syntax information about SAS statements (such as LIBNAME and FILENAME) and SAS system options, which you must use in order to move SAS files between operating environments.

SAS Operating Environment Companions
provides host-specific syntax information about SAS statements (such as LIBNAME), which you must use in order to move SAS files between operating environments.

SAS Procedures Guide
provides syntax information about SAS procedures (such as PROC COPY, and PROC CPORT and PROC CIMPORT), which you must use in order to move SAS files between operating environments.

SAS/CONNECT User's Guide
gives complete details about performing PROC UPLOAD and PROC DOWNLOAD. It also describes the features of CEDA.

SAS/SHARE User's Guide
gives complete details about SAS/SHARE.

Recommended Audience

This information is designed for the persons who are responsible for moving or accessing SAS files across operating environments. Often, the person who performs tasks at the source host is different from the person who performs tasks at the target host. Typically, someone creates a transport file for output to a magnetic medium, which is sent to the target host site. At the remote site, someone mounts the medium and restores the transport file to the target host native format. Alternatively, if two hosts are connected by a network, the transport file can be transferred to the target host over the network. FTP (File Transfer Protocol) can be used at either the source host or the target host for transferring the transport file.

This book is intended for operating system administrators, network administrators, applications developers, and experienced SAS users.