

CHAPTER

5

Import/Export Facility and Procedures

Overview	51
Import/Export Facility	51
IMPORT and EXPORT Procedures	53
IMPORT Procedure	53
Example: Importing a Microsoft Access File	54
EXPORT Procedure	54
Example: Exporting a Delimited File under UNIX	54

Overview

This chapter describes the capabilities of the Import/Export facility and the IMPORT and EXPORT procedures, which are available through base SAS software. Both the facility and procedures have the same capabilities but one is a point-and-click interface and the other is code-based. Both enable you to access all of the PC file formats that are available through the ACCESS and DBLOAD procedures (except for DIF). You can also access some additional PC formats, such as Excel 97 (Version 8) or Microsoft Access files. The SAS Import/Export facility and procedures are available under the following operating environments:

- UNIX
- OpenVMS
- OS/2
- Windows 95, 98, and Windows NT.

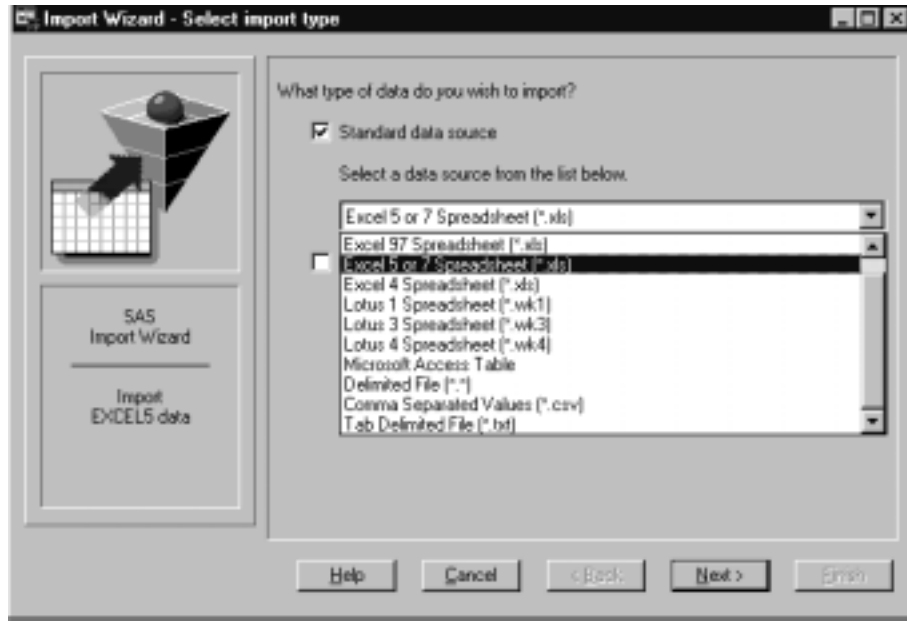
Not every PC file format is available under every operating environment.

Import/Export Facility

The Import/Export facility is a tool, called a *wizard*, that guides you through the importing or exporting process. From a SAS session's PROGRAM EDITOR window, select the **File** menu and then select the **Import Data** or **Export Data** item. Detailed information about using the wizard is available from the **[Help]** button.

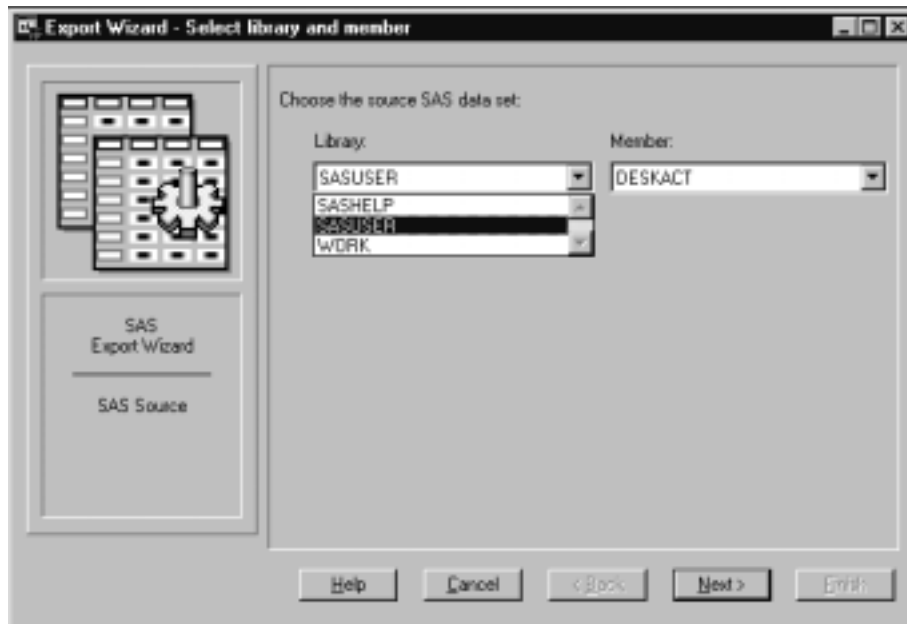
The Import Wizard enables you to read data from an external data source and write it to a SAS data set. External data sources can include DBMS tables, PC files, spreadsheets, and delimited external files, which are files containing columns of data values that are separated by a delimiter such as a blank or a comma. Display 5.1 on page 52 shows some of the PC file formats that you can import from the Windows environment.

Display 5.1 Import Window



The Export Wizard reads data from a SAS data set and writes it to an external file source. Display 5.2 on page 52 shows an example of the Export Window under Windows NT:

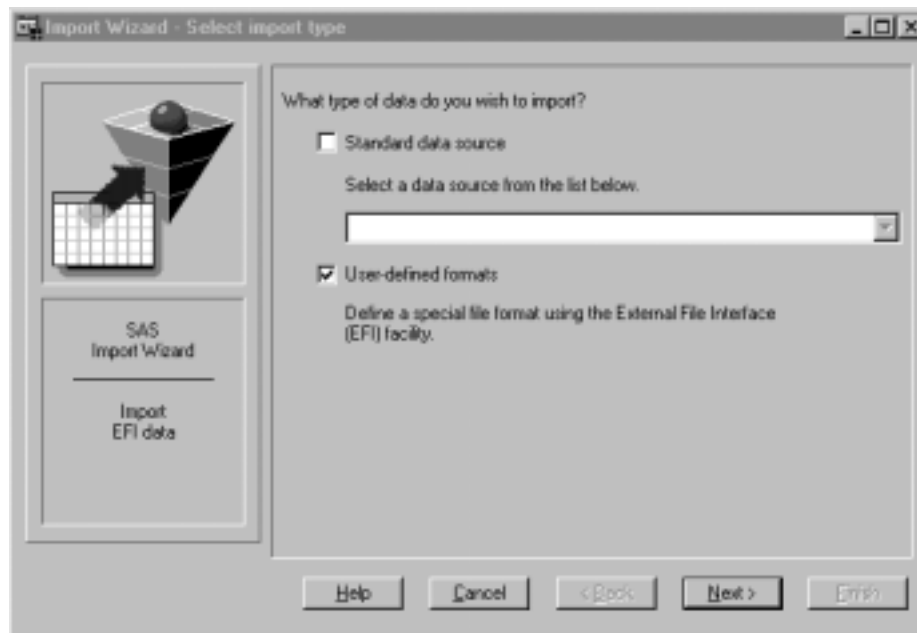
Display 5.2 Export Window



From the primary window of the Import/Export facility, you can also access the *External File Interface (EFI)*. EFI is a point-and-click interface that enables you to read and write data in a file type that is not known to the Import/Export facility. For example, you could use EFI to transfer data from a SAS data set to a file format that is proprietary for your company. Detailed information about using EFI is available from

the **Help** button. Display 5.3 on page 53 shows you how to access EFI from the Import Wizard:

Display 5.3 Accessing the External File Interface



IMPORT and EXPORT Procedures

As in the Import/Export facility, the IMPORT and EXPORT procedures transfer data between SAS and external data sources. These external data sources can include DBMS tables, PC files, spreadsheets, and delimited external files, which are files containing columns of data values that are separated by a delimiter such as a blank or a comma.

IMPORT Procedure

The syntax for the IMPORT procedure is shown here briefly but is described in detail in the *SAS Procedures Guide*.

PROC IMPORT

```
DATAFILE=< "filename" | TABLE="tablename">
OUT=<libref.> SAS-data-set
<DBMS=identifier> <REPLACE>;
<data-source-statements;>
```

After you invoke the IMPORT procedure, it reads the input file and writes the data to a SAS data set, where the names of the SAS variables are based on the column names of the input data. PROC IMPORT imports the data by one of the following methods:

- generated DATA step code
- generated SAS/ACCESS code
- translation engines.

You control the results with options and statements that are specific to your input data source. PROC IMPORT produces the specified output SAS data set and writes

information about the import to the SAS log. In the log, you see the DATA step or the SAS/ACCESS code that is generated by PROC IMPORT. If a translation engine is used, then the code is not submitted.

Example: Importing a Microsoft Access File

This example imports a Microsoft Access table called CUSTOMERS and from it creates a permanent SAS data set named SASUSER.CUST. The MS Access table has user-level security and, therefore, you need to specify the following statements: PWD=, UID=, and WGDB=. This example is repeated from the *SAS Procedures Guide*; see it for the following example's output and SAS log.

```
proc import table="customers" out=sasuser.cust dbms=access;
    uid="thomas";
    pwd="rocket";
    database="c:\hrdiv\east.mdb";
    wgdb="c:\winnt\system32\security.mdb";
proc print data=sasuser.cust;
run;
```

EXPORT Procedure

The syntax for the EXPORT procedure is shown here briefly but is described in detail in the *SAS Procedures Guide*.

PROC EXPORT

```
DATA=<libref.>SAS-data-set
OUT="filename" | OUTTABLE="tablename"
<DBMS=identifier> <REPLACE>;
```

The EXPORT procedure reads data from a SAS data set and exports it to an external data source by using one of the following methods:

- generated DATA step code
- generated SAS/ACCESS code
- translation engines.

PROC EXPORT also controls the results with options and statements that are specific to the output data source.

Example: Exporting a Delimited File under UNIX

The following example exports a SAS data set named MYFILE.CLASS and creates a delimited external file called CLASS. Notice that the DELIMITER= statement specifies the ampersand (&) delimiter to separate the column names in the new file. This example is repeated from the *SAS Procedures Guide*; see it for the following example's SAS log.

```
proc export data=myfiles.class
    outfile="/myfiles/class";
    dbms=dlm;
    delimiter='&';
run;
```

PROC EXPORT produces an external file as follows (showing the first five rows):

NAMES&SEX&AGE&HEIGHT&WEIGHT

Alice&F&13&56.5&84

Becka&F&13&65.3&98

Gail&F&14&64.3&90

Karen&F&12&56.3&77

Kathy&F&12&59.8&84.5

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