

## CHAPTER

## 1

# The SAS/ACCESS Interface to SYSTEM 2000

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## Overview of the SAS/ACCESS Interface to SYSTEM 2000

SAS/ACCESS software provides an interface between SAS and SYSTEM 2000 database management software. With the SAS/ACCESS interface, you can

- create SAS/ACCESS descriptor files by using the ACCESS procedure
- directly access data in SYSTEM 2000 databases from within a SAS program by using the descriptor files created with the ACCESS procedure
- extract SYSTEM 2000 data and place it in a SAS data file by using the ACCESS procedure or the DATA step
- load data into a SYSTEM 2000 database by using the DBLOAD procedure
- update data in SYSTEM 2000 databases by using the SQL procedure, SAS/FSP software, or the APPEND procedure. The SQL procedure can also be used to join SAS data files, PROC SQL views, and SAS/ACCESS view descriptors.
- directly access data in SYSTEM 2000 databases by using the QUEST procedure with SYSTEM 2000 statements.

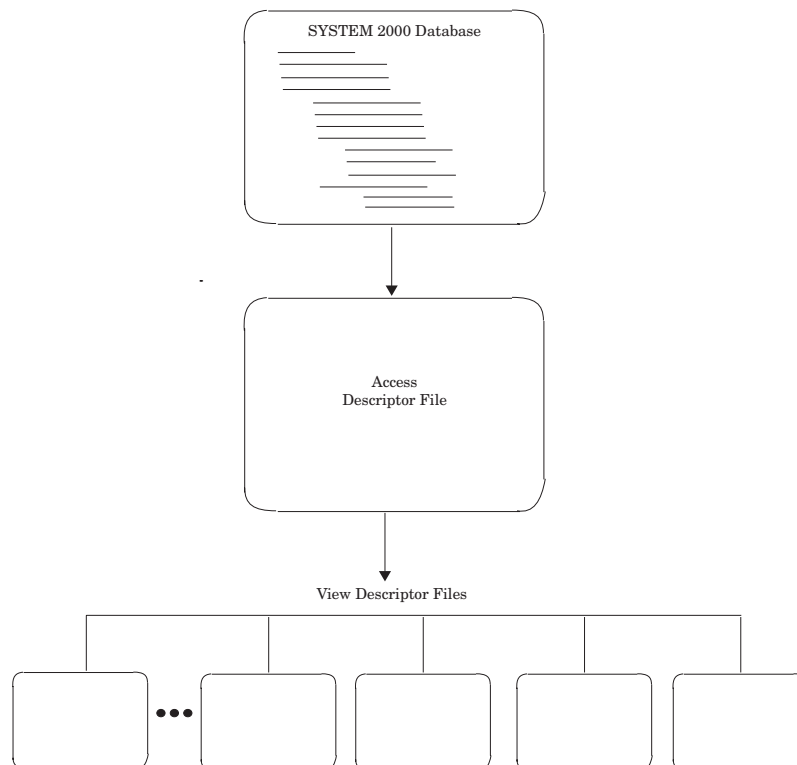
The SAS/ACCESS interface consists of

- the interface view engine, which enables you to use SYSTEM 2000 data in SAS programs in the same way that you use SAS data. You can print, plot, and chart the data described by the descriptor files, use the descriptor files to create other SAS data files, and so on.
- the ACCESS procedure, which enables you to describe SYSTEM 2000 data to SAS and store the description in SAS/ACCESS descriptor files.
- the DBLOAD procedure, which enables you to create and load SYSTEM 2000 databases using data from SAS data sets.
- the QUEST procedure, which enables you to access SYSTEM 2000 and issue SYSTEM 2000 statements from SAS.

You might need to combine data from several SYSTEM 2000 databases or from external databases, such as DB2 or Version 6 and later SAS data sets. Such combinations are not only possible but easy to do. SAS can distinguish between SAS data files, SAS/ACCESS descriptor files, and other types of SAS files, and the software will use the appropriate access method.

Figure 1.1 on page 4 illustrates the relationships of a SYSTEM 2000 database, access descriptors, and view descriptors.

**Figure 1.1** A SYSTEM 2000 Database, Access Descriptor Files, and View Descriptor Files




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## Example Data in This Document

This document uses the SYSTEM 2000 database EMPLOYEE and several SAS data files to show you how to use the SAS/ACCESS interface to SYSTEM 2000. This database and the SAS data files MYDATA.CLASSES, V6.BIRTHDY, and MYDATA.CORPHON were created for a company's employee information. The data file TRANS.BANKING (used in the example for the DBLOAD procedure) was created for banking transactions. All the data is fictitious. The database is used to show how the interface treats SYSTEM 2000 data. It should not be used as an example for you to follow in designing databases for any purpose.

See Appendix 3, "Example Programs," on page 135 for more information about the example data used in this documentation.

The SAS jobs to create the SAS data files are on your installation media; see your SAS Support Consultant to create the SAS data files. The database EMPLOYEE is on the SYSTEM 2000 installation media; see your Database Administrator to ensure that the data is available and in its original state.

You will create the access descriptor MYLIB.EMPLOYE and the view descriptors VLIB.EMPPOS and VLIB.EMPSKIL. See Chapter 3, "SAS/ACCESS Descriptor Files," on page 17. You will need to create the other view descriptors in this document on your own, using the definitions shown in Appendix 3, "Example Programs," on page 135.