

Chapter 1

Introduction to the SAS Drivers for JDBC

About the SAS Drivers for JDBC: Cookbook	1
How the Cookbook Can Help You Write Applications	1
What You Should Know in Order to Use This Cookbook	1
About the SAS Drivers for JDBC	2
About the Data That Can Be Accessed by Using the SAS Drivers for JDBC	2
Base SAS Data Sets	2
SAS Scalable Performance Data Server Data	2
Third-Party Relational Data	3
Accessibility Features in the SAS Drivers for JDBC	3

About the SAS Drivers for JDBC: Cookbook

How the Cookbook Can Help You Write Applications

The *SAS Drivers for JDBC: Cookbook* provides programming recipes for use with the two SAS drivers for JDBC. The recipes are designed to expedite development efforts in these ways:

- by providing ready-to-use sample code, as complete programs or as fragments
- by encouraging best practices
- by answering frequently asked questions

You can use the recipes directly or modify them to fit your needs.

What You Should Know in Order to Use This Cookbook

The cookbook assumes that the following statements are true:

- You are familiar with the JDK (Java Development Kit).
- You know how to compile and run Java applications.
- You are familiar with Sun Microsystems JDBC API documentation, especially the documentation that can be found in these Web locations:
 - java.sun.com/j2se/1.4.2/docs/guide/jdbc/
 - java.sun.com/j2se/1.4.2/docs/api/

- java.sun.com/docs/books/tutorial/jdbc/
- Either you know how to start up the SAS server that you want to access or the server has been started for you.
- You are familiar with the information in the following resource:

Fisher, Maydene, Jon Ellis, and Jonathan Bruce. 2003. *JDBC API Tutorial and Reference*, Third Edition. Reading, MA: Addison-Wesley.

About the SAS Drivers for JDBC

The SAS drivers for JDBC implement data access interfaces that conform to the JDBC API (application programming interface) from Sun Microsystems.

- The SAS/SHARE driver for JDBC supports multi-user, forward-only access to Base SAS and Scalable Performance Data (SPD) Server data via the SAS/SHARE server.
- The SAS Integration Technologies IOM driver for JDBC supports multi-user, scrollable access to Base SAS data via a SAS Workspace Server. If you have licensed one or more SAS/ACCESS engines, you can also use the IOM driver to access third-party relational data.
- The SAS Table Server Driver for JDBC provides access to the SAS Table Server, which provides multi-user, random-access scrolling, and access to Base SAS, SPD Engine, and third-party relational data.

All of the SAS drivers for JDBC are native-protocol, fully Java technology-enabled drivers. They directly convert JDBC technology calls into the network protocol that is used by the underlying data sources. The conversion enables client machines to make direct calls to the data servers.

About the Data That Can Be Accessed by Using the SAS Drivers for JDBC

Base SAS Data Sets

A Base SAS data set is the proprietary file format for SAS software. Data sets contain data values that are organized as a table of observations (rows) and variables (columns). The supported file format is the same as SAS data sets created by the BASE engine Version 7 and higher. A supported SAS data set uses the extension **.sas7bdat**.

SAS Scalable Performance Data Server Data

SPD Server data provides performance for very large amounts of data. The data source provides threaded I/O processing, using multiple CPUs in order to read data and deliver it rapidly to applications. Very large files can be processed, because the data can span volumes but is referenced as a single file. The data in the files is also partitioned, which allows the data to be read in multiple threads per CPU.

Third-Party Relational Data

Third-party relational database management systems (DBMS) data that can be accessed includes DB2 and Oracle.

Accessibility Features in the SAS Drivers for JDBC

Accessibility Features of the SAS Add-In for Microsoft Office The SAS Drivers for JDBC includes accessibility and compatibility features that improve usability of the product for users with disabilities. These features are related to accessibility standards for electronic information technology adopted by the U.S. Government under Section 508 of the U.S. Rehabilitation Act of 1973, as amended. If you have questions or concerns about the accessibility of SAS products, send e-mail to accessibility@sas.com.

