

CHAPTER 1

File Locations and Installation Settings

About this chapter This chapter describes the installation and operating system settings used by Adaptive Server Anywhere. Depending on the operating system, these settings may be stored as environment variables, initialization file entries, or registry entries.

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Installation directory structure

The Adaptive Server Anywhere installation directory

When you install Adaptive Server Anywhere, several directories may be created. Some of the files in these directories are essential, and others are not. This section describes the directory structure.

Adaptive Server Anywhere software, whether you receive it as a product or bundled as part of another product, is installed under a single installation directory. The tools provided with the Adaptive Server Anywhere product, however, are installed in other directories. This section describes only the installation directory structure for Adaptive Server Anywhere itself.

The Adaptive Server Anywhere installation directory holds several items:

- ◆ **The sample database** The sample database is held in the file *asademo.db*.
- ◆ **Read Me First** A Read Me First file named *readme.txt* holds late-breaking information.

There are several directories under the installation directory:

- ◆ **Executable directories** There is a separate directory for each operating system, which holds executables, dynamic link libraries, and help files. The directories are as follows:
 - ◆ **Windows NT and Windows 95** *win32*
 - ◆ **UNIX** *bin*
 - ◆ **Windows 3.x** *win*
 - ◆ **Novell NetWare** *nlm*

You will not have all these directories on your machine, only the ones required for the operating system version you installed.

- ◆ **Java directory** Java base classes are stored in this directory.
- ◆ **Scripts directory** The scripts directory contains SQL scripts that are used by the database administration utilities and as examples. *You should not edit these scripts.* If the scripts directory is not present, the administration utilities will not work.
- ◆ **Examples directories** There are separate directories for C (*cxmp*) and Java (*jxmp*) examples.

How Adaptive Server Anywhere locates files

The client library and the database server need to locate files for two main purposes:

- ◆ DLLs and initialization files are required to run Adaptive Server Anywhere. If an incorrect DLL is located, there is the possibility of version mismatch errors.
- ◆ Some files are specified in SQL statements and need to be located at run time, such as `INSTALL` or `LOAD TABLE`.

Examples of SQL statements that use file names include the following:

- ◆ **INSTALL statement** The name of the file that holds Java classes
- ◆ **LOAD TABLE and UNLOAD TABLE statements** The name of the file from which data should be loaded or to which the data should be unloaded.
- ◆ **CREATE DATABASE statement** A file name is needed for this statement and similar statements that can create files.(such as `CREATE WRITEFILE`).

In some cases, Adaptive Server Anywhere uses a simple algorithm to locate files. In other cases, a more extensive search is carried out.

Simple file searching

In many SQL statements (such as `LOAD TABLE`, or `CREATE DATABASE`), the file name is interpreted as relative to the current working directory of the database server.

Also, when a database server is started and a database file name (DBF parameter) is supplied, the path is interpreted as relative to the current working directory.

Extensive file searching

Adaptive Server Anywhere programs, including the database server and administration utilities, carry out a more extensive search for required files, such as DLLs or shared libraries. In these cases, Adaptive Server Anywhere programs look for files in the following order:

- 1 **The executable directory** The directory in which the program executable is held. Also, directories with the following paths relative to the program executable directory:
 - ◆ Parent of the executable directory
 - ◆ A child of the parent directory named *scripts* The UNIX server does not search in this location.

- 2 **Current working directory** When a program is started, it has a current working directory (the directory from which it is started). This directory is searched for required files.
- 3 **Location registry entry** On installation, Adaptive Server Anywhere adds a LOCATION registry entry. The indicated directory is searched, followed by the following:
 - ◆ A child named *scripts*
 - ◆ A child with the operating system name (*win32*, *win*, and so on).
- 4 **System specific directories** This includes directories where common operating system files are held, such as the *Windows* directory and the *Windows\system* directory on Windows and Windows NT operating systems.
- 5 **CLASSPATH directories** For Java files, directories listed in the CLASSPATH environment variable are searched to locate files.
- 6 **PATH directories** Directories in the system path and the user's path are searched to locate files.

Environment variables

Adaptive Server Anywhere uses a set of environment variables to store various types of information. Not all variables need to be set in all circumstances.

❖ To set an environment variable on 32-bit Windows:

- 1 Right Click on My Computer and select Properties from the popup menu.
- 2 Click the Environment tab. If the environment variable does not already exist, type variable and its value in the spaces provided, and click Set.

If the variable does exist, select it from the list of System Variables or User Variables, and make any modifications in the Value field. Click Set to make the setting.

❖ To set an environment variable on UNIX:

- ◆ In one of your startup files (*.cshrc*, *.shrc*, *.login*), add a line that sets the variable.

In some shells (such as sh, bash, ksh) the line is as follows:

```
export VARIABLE=value
```

In other shells (such as csh, tsh) the line is as follows:

```
setenv VARIABLE value
```

The following is a list of environment variables that are used by Adaptive Server Anywhere, and a description of their use.

LD_LIBRARY_PATH environment variable [UNIX]

Syntax

`LD_LIBRARY_PATH= installation_path/lib`

Description

The `LD_LIBRARY_PATH` environment variable is used on UNIX only. It is modified by the installation program to include the directories where Adaptive Server Anywhere libraries are located.

The executables are located in the *lib* subdirectory of the installation directory. For example, */opt/SYBSasa6/lib*.

PATH environment variable

Syntax **PATH=** *installation_path*

Description The PATH environment variable is modified by the installation program to include the directories where Adaptive Server Anywhere executables are located.

The executables are located in a subdirectory of the installation directory.

In addition, if you are using other Sybase applications, the *SYBASE\bin* and *SYBASE\dll* directories are added to your path.

On UNIX, each user must have the directory holding the executables (*/opt/SYBSASA6/bin*) added to their path.

SATMP environment variable

Syntax **SATMP=** *temp_directory*

Description The SATMP environment variable is used by UNIX versions of Adaptive Server Anywhere to indicate a directory where temporary files are kept.

If more than one database server is running on a machine, each user needs their own temporary directory. Typically, this is set to */tmp/.userid*, so that each user has their own directory and conflicts are avoided.

SQLCONNECT environment variable


Syntax **SQLCONNECT=***parameter#value* ; ...

Description The SQLCONNECT environment variable is optional, and is not set by the installation program.


SQLCONNECT specifies connection parameters that are used by several of the database administration utilities when connecting to a database server.

This string is a list of parameter settings, of the form **parameter=value**, delimited by semicolons.

The number sign "#" is an alternative to the equals sign, and should be used if you are setting the connection parameters string in the SQLCONNECT environment variable. Using "=" inside an environment variable setting is a syntax error. The = sign is allowed only in Windows NT.

 For a description of the connection parameters, see "Connection parameters" on page 46 of the book *Adaptive Server Anywhere User's Guide*.

SQLLOCALE environment variable

Syntax	SQLLOCALE= Charset= <i>cslabel</i> ;Language= <i>langlabel</i> ;CollationLabel= <i>colabel</i>
See also	"The SQLLOCALE environment variable" on page 316 of the book <i>Adaptive Server Anywhere User's Guide</i>
Description	<p>The SQLLOCALE environment variable is not set by the installation program, and is required only in multi-character-set environments.</p> <p>The SQLLOCALE environment variable is a single string that consists of three semi-colon-separated assignments. The assignments set out the character set, language, and collation of the environment.</p> <p> For more information, including listings of supported values for the assignments, see "The SQLLOCALE environment variable" on page 316 of the book <i>Adaptive Server Anywhere User's Guide</i>.</p>

SQLPATH environment variable

Syntax	SQLPATH= <i>path</i> ;...
Description	<p>The SQLPATH environment variable is optional, and is not set by the installation program.</p> <p>Interactive SQL searches along SQLPATH for command files and Help files before searching the system path.</p>

SQLREMOTE environment variable

Syntax	SQLREMOTE= <i>path</i>
Description	<p>The SQLREMOTE environment variable is optional, and is not set by the installation program.</p> <p>Addresses for the FILE message link in SQL Remote are subdirectories of the SQLREMOTE environment variable. This variable should point to a shared directory.</p> <p>On 32-bit Windows, an alternative to setting the SQLREMOTE environment variable is to set the <i>SQL Remote\Directory</i> registry entry to the proper root directory.</p>

SYBASE environment variable

Syntax	SYBASE= <i>path</i>
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Description The SYBASE variable marks the home directory for installation of some Sybase applications, including Adaptive Server Enterprise and utilities such as *dsedit*. You need this variable only if you are using Adaptive Server Anywhere together with other members of the Adaptive Server family.

TEMP environment variable

Syntax **TMP**=*path*
TMPDIR=*path*
TEMP=*path*

Description The database server creates a temporary file for various operations such as sorting and performing unions. Temporary files are placed in the directory specified by the TMP, TMPDIR, or TEMP environment variable. Adaptive Server Anywhere takes the first one of the three that it finds.

If none of the environment variables is defined, temporary files are placed in the current working directory of the server.

On UNIX, the SATMP variable is used instead of the TEMP environment variable.

Registry entries and INI files

On Windows 95 and Windows NT operating systems, Adaptive Server Anywhere uses several registry settings. On Windows 3.x, UNIX, and Netware 3.11, these settings are held in initialization files instead.

These settings are made for you by the software, and in general operation you should not need to access the registry. The settings are provided here for those people who make modifications to their operating environment.

Current user and local machine settings

Some operating systems, such as Windows NT, hold two levels of system settings. Some settings are specific to an individual user, and are used only when that user is logged on; these settings are called **current user** settings. Some settings are global to the machine, and are available no matter which user is logged on; these are called **local machine** settings. You must have administrator permissions on your machine to make local machine settings.

Adaptive Server Anywhere permits both current user and local machine settings. For Windows NT, these are held in the HKEY_CURRENT_USER registry and HKEY_LOCAL_MACHINE registry, respectively.

The Adaptive Server Anywhere installation allows you to choose whether settings are made for the current user only, or at the local machine level.

Current user takes precedence

If a setting is made in both current user and local machine registries, the current user setting takes precedence over the local machine setting.

When local machine settings are needed

If you are running an Adaptive Server Anywhere program as a **service** under Windows NT, you should ensure that the settings are made at the *local machine* level.

Services can continue to run under a special account when you log off a machine, as long as you do not shut the machine down entirely. They can be made independent of individual accounts, and therefore need access to local machine settings.

In addition to Adaptive Server Anywhere programs, some Web servers run as services. You must set local machine settings in order for PowerDynamo to work with such a Web server.

In general, the use of local machine settings is recommended.

Registry structure

On Windows 95 and Windows NT, you can access the registry directly with the registry editor. The Adaptive Server Anywhere registry entries are held in either the HKEY_CURRENT_USER or HKEY_LOCAL_MACHINE registries, in the following location:

```
Software
  Sybase
    Adaptive Server Anywhere
      6.0
        ISQL
        SQL Remote
        Sybase Central
        Providers
```

Registry settings on installation

The installation program makes the following registry settings in the Sybase registry:

- ◆ **Location** In the *Adaptive Server Anywhere\6.0* registry, this entry holds the installation directory location. For example:

```
Location "c:\sybase\asa6"
```

- ◆ **Language** In the *Adaptive Server Anywhere\6.0* registry, this entry holds a two-letter code indicating the current language for messages and errors. For example:

```
Language "EN"
```

The default setting is English (EN). The installation program sets this entry only if the software is installed for a language other than English.

- ◆ **Tools location** In the *Sybase Tools* registry, this entry holds the installation directory location for the Sybase Tools. For example:

```
Location "c:\sybtools"
```

- ◆ **Providers** In the *Sybase Central\Providers* registry, this entry stores the file names of installed plug-ins for Sybase Central. Adaptive Server Anywhere has its own Sybase Central plug-in:

```
Adaptive Server Anywhere
"c:\sybase\asa6\win32\scsqlany.dll"
```