



Release Bulletin

SDK for SAP ASE 16.0

Microsoft Windows

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Product Summary

This release bulletin provides information about SDK for SAP® ASE version 16.0.

SDK for SAP ASE 16.0 is compatible with these operating system configurations:

- Microsoft Windows x86 32-bit
- Microsoft Windows x86-64 64-bit

For the most current list of supported operating systems, see the platform certifications page at <http://certification.sybase.com/ucr/search.do>. For a list of platforms, compilers, and third-party products on which SDK for SAP ASE is built and tested, see the *New Features Bulletin SAP Open Server 16.0 and SDK for SAP ASE 16.0 for Windows, Linux, and UNIX*.

Product Components

See the *New Features Bulletin SAP Open Server 16.0 and SDK for SAP ASE 16.0 for Windows, Linux, and UNIX* for list of SDK for SAP ASE components and the platforms supported.

SAP has tested and certified these compilers and linkers for use with SAP® Open Client™:

- Microsoft Visual Studio 2005 32-bit and 64-bit C/C++ Compiler, version 14.00.50727.762.
- Microsoft Visual Studio 2005 32-bit and 64-bit Executable Linker, version 8.00.50727.762.

Availability with 64-bit Libraries

SDK for SAP ASE 16.0 is available in 64-bit versions.

Use the `-DSYB_LP64` flag when compiling applications that use the 64-bit libraries.

Utilities

Utilities that are supported by SDK for SAP ASE 16.0.

bcp, **isql**, **defncopy**, **cobpre**, and **cpre** are available on Microsoft Windows.

IPv6 Support

SDK for SAP ASE 16.0 supports IPv6.

This is a sample `sql.ini` entry:

```
[BARNARD_OS]
master=tcp,barnards.sybase.com,18200
query=tcp,barnards.sybase.com,18200
master=tcp,fd77:55d:59d9:165:203:baff:fe68:aa12,18200
query=tcp,fd77:55d:59d9:165:203:baff:fe68:aa12,18200
```

Sample Files

You can find sample files in the SDK for SAP ASE installation directory `%SYBASE%\%SYBASE_OCS%\sample`. Available sample files for SDK for SAP ASE 16.0.

Interoperability Matrix

The interoperability matrix of SDK for SAP ASE, SAP® Open Server™, SAP® Adaptive Server® Enterprise (SAP® ASE), and SAP® Replication Server® that are installed on the same machine.

For specific platform information, refer to the respective product certification reports.

Although two or more products can be interoperable, remember that new features introduced in a newer version of a product may not be supported with older versions of the same or other products.

SDK for SAP ASE	SAP Open Server			SAP ASE				SAP Replication Server					
	16.0	15.5	15.0	16.0	15.5	15.0.x	12.5.x	15.7	15.5	15.2	15.1	15.0.1	12.6
Microsoft Windows x86 32-bit	x	xx	x	x	xx	x	x	x	x	x	x	x	x
Microsoft Windows x86-64 64-bit	x	xx	x	x	xx	x	n/a	x	x	n/a	n/a	n/a	n/a
LEGEND: x = interoperable; n/a = product not available or does not work with SDK for SAP ASE on that platform.													

Note: The SDK for SAP ASE interoperability information shown in the table is relevant only if the interoperable products are installed in different %SYBASE% directories. See *Running different versions of SDK on Windows*.

See also

- *Running Different Versions of SDK for SAP ASE on Windows* on page 6

Guidelines for Installing SDK for SAP ASE with Other SAP Products

Guidelines for installing SDK for SAP ASE on the same machine with other SAP products.

- On Microsoft Windows, installing SDK for SAP ASE 16.0 on the same machine as Adaptive Server 15.0.x could cause SAP Adaptive Server to fail to start. To configure this, either upgrade SAP Adaptive Server to 16.0, or follow the directions in the *SDK for SAP ASE and SAP Open Server Installation Guide for Microsoft Windows*.
- On Microsoft Windows, use .bat files to ensure that each product is started using the correct SDK for SAP ASE version and environment variables.
- SAP recommends that you do not mix versions of SDK for SAP ASE and SAP Open Server in the same directory. For example, do not install SDK for SAP ASE 16.0 in a directory containing Open Server 15.5—in this case, upgrade both SDK for SAP ASE and SAP Open Server to 16.0.

SDK for SAP ASE and SAP Open Server Compatibility

For SDK for SAP ASE and SAP Open Server compatibility, the header files included in an application must be the same version level as the library with which the application is linked.

DB-Library Compatibility with Client-Library

Learn about DB-Library™ compatibility with Client-Library issues.

DB-Library compatibility issues include:

- Support for new features in SAP Open Client or SAP Adaptive Server have been made primarily to the Client-Library API. This includes support for LDAP, SSL, high availability failover, bulk-copies into DOL tables, and so on. For this reason, SAP recommends that you create all new applications using the Client-Library API. You may also need to migrate, to Client-Library, older applications written in DB-Library that can be run against SAP Adaptive Servers that offer newer technology.
- Support for new features are not added to the DB-Library.
- Although DB-Library and Client-Library calls can exist in the same application, SAP does not test or certify combining the two different APIs. If you must use the two APIs together,

Product Summary

ensure that the libraries are not only at the same major release level but also at the same ESD level.

For help on converting a DB-Library application to a Client-Library application, see the *Open Client Client-Library Migration Guide*.

Special Installation and Configuration Instructions

Installation and configuration instructions for SDK for SAP ASE 16.0.

See the *SDK for SAP ASE and SAP Open Server Installation Guide* for your platform for instructions on how to install the software. For guidelines for installing SDK for SAP ASE with other SAP products on the same server, see *Guidelines for installing SDK for SAP ASE with other SAP products*.

Warning! If you install both SDK for SAP ASE and SAP Open Server in the same directory, SAP recommends that you use the same version and ESD levels. Because SDK for SAP ASE and SAP Open Server share files, using different version and ESD levels can cause product failures.

For instructions on configuring your environment, see the *Open Client and Open Server Configuration Guide* for your platform.

For information about compiling and executing SAP Open Server and SAP Open Client applications, including the sample programs, see the *Open Client and Open Server Programmers Supplement* for your platform.

See also

- *Guidelines for Installing SDK for SAP ASE with Other SAP Products* on page 3

Installing EBFs

To ensure that your installation is the most current, SAP recommends that, after installing SAP Open Server, you download and install the corresponding latest available EBF.

1. Download product updates from Downloads at <http://downloads.sybase.com>.
2. To verify that you are using the correct version of SDK for SAP ASE, enter this command to check the version string of the SDK library:

```
isql.exe -v
```

A sample SDK for SAP ASE version string might be Client-Library/16.0 SPxx PLyy/P-EBFXXXXX ESD #X, where XXXX identifies the Client-Library file and the other SDK for SAP ASE files.

Running InstallAnywhere and InstallShield Multiplatform Installers

Some of the files generated by InstallAnywhere and InstallShield Multiplatform share the same file names.

This becomes an issue when you use both InstallAnywhere and InstallShield technologies to install or uninstall products in the same installation directory, because files that are used by both installers are overwritten or removed without warning. SAP recommends that you do not use InstallShield and InstallAnywhere to install to or uninstall from the same installation directory.

Running Different Versions of SDK for SAP ASE on Windows

In a heterogeneous environment that uses applications built for different versions of SDK for SAP ASE, you must explicitly set a path for each version at the Command Prompt window.

In this example, applications using the 12.5.x products are installed in the `d:\ocs-1251` directory, and applications using the 16.0 products are installed in the `d:\ocs-16_0` directory.

1. To use SDK 12.5.x, open a Command Prompt window and set the SYBASE and OCS-16_0 environment variables to the 12.5.x directory. For example:

```
set SYBASE=D:\ocs-1251
set OCS-16_0=OCS-12_5
```

2. In the same Command Prompt window, set the PATH environment variable to the 12.5.x directory.

- On Microsoft Windows x86 32-bit:

```
set PATH=%SYBASE%\%OCS-16_0%\bin;%SYBASE%\%OCS-16_0%\dll;
%SYBASE%\%OCS-16_0%\lib3p;%PATH%
```

- On Microsoft Windows x86-64 64-bit:

```
set PATH=%SYBASE%\%OCS-16_0%\bin;%SYBASE%\%OCS-16_0%\dll;
%SYBASE%\%OCS-16_0%\lib3p64;%SYBASE%\%OCS-16_0%\lib3p;%PATH%
```

3. To use SDK for SAP ASE 16.0, open another Command Prompt window and set the SYBASE and OCS-16_0 environment variables to the 16.0 directory. For example:

```
set SYBASE=D:\ocs-16_0
set OCS-16_0=OCS-16_0
```

4. In the same Command Prompt window, set the PATH environment variable. For example:

Special Installation and Configuration Instructions

- On Microsoft Windows x86 32-bit:

```
set PATH=%SYBASE%\%OCS-16_0%\bin;%SYBASE%\%OCS-16_0%\dll;  
%SYBASE%\%OCS-16_0%\lib3p;%PATH%
```

- On Microsoft Windows x86-64 64-bit:

```
set PATH=%SYBASE%\%OCS-16_0%\bin;%SYBASE%\%OCS-16_0%\dll;  
%SYBASE%\%OCS-16_0%\lib3p64;%SYBASE%\%OCS-16_0%\lib3p;%PATH%
```

Although you must install different versions in separate directories, you can maintain a single `sql.ini` file by explicitly passing the address file name to each application, for example:

```
isql -P -Usa -Sconnect50 -ID:\ocs-16_0\ini\sql.ini
```


Changed Functionality in this Version

Changed functionality for SDK for SAP ASE 16.0 is described in *New Features Bulletin SAP Open Server 16.0 and SDK for SAP ASE 16.0 for Windows, Linux, and UNIX*.

Changed Functionality in this Version

Known Issues

Review known issues and workarounds, listed by Change Request (CR) number.

Note: If you have a Sybase® support contract, you can search the Sybase Web site for solved cases. Choose **Support > Solved Cases** or go to <http://search.sybase.com/search/simple.do?mode=sc>. You need a MySybase account to view solved cases in the archive.

If you have an SAP® support contract, use the Sybase xSearch to search for knowledge-based articles and solved cases. Go to the SAP Sybase Support Portal at <http://service.sap.com/sybase/support>, log in, and select **KBAs & Solved cases** to start the xSearch.

Key to issue types:

- **RTC** – SAP® Release to Customer tracking number.
- **CSN** – SAP Customer Services Network tracking number.
- **CR** – Sybase® Change Request number.
- **AG** – Agentry® tracking number.
- **N/A** – No tracking number.

CR#	Description
555455	<p>SDK requires components of Microsoft Visual C++ libraries.</p> <p>Workaround: To use SDK on Microsoft Windows, download and install the Microsoft Visual C++ 2005 Redistributable Package:</p> <ul style="list-style-type: none"> • Download the package for Microsoft Windows x86 32-bit from http://www.microsoft.com/downloads/en/details.aspx?FamilyID=200B2FD9-AE1A-4A14-984D-389C36F85647. • Download the package for Microsoft Windows x86-64 64-bit from http://www.microsoft.com/downloads/en/details.aspx?FamilyID=EB4EBE2D-33C0-4A47-9DD4-B9A6D7BD44DA.

Known Issues for SAP Adaptive Server Enterprise ODBC Driver

Known problems and workarounds, if any, for SAP Adaptive Server Enterprise ODBC Driver.

Table 1. SAP Adaptive Server Enterprise ODBC Driver issues

CR#	Description
682086	<p>The bulk insert functionality of the ODBC Driver available with SQLBulkOperations has not been tested with large object (LOB) columns marked for in-row storage on allpages-locked (APL) tables. Using this API against such APL tables could result in errors or corrupted data.</p> <p>Workaround: Do not mark LOB columns for in-row storage on APL tables if you are using SQLBulkOperations to bulk load data into the tables.</p>

CR#	Description
	<p>You see an error if you do not specify the precision and scale using the ODBC API method – SQLSetDescField – when retrieving data from numeric or decimal columns in a table.</p> <p>Workaround: Specify the SQLSetDescField with value types SQL_DESC_PRECISION and SQL_DESC_SCALE.</p> <p>This code illustrates how to retrieve a numeric column from a table specifying a precision and scale.</p> <pre data-bbox="329 465 1180 1437"> /* Insert values Execute select statement */ /* Fetch Values */ #define ROW_SIZE 10 SQLRETURN sr; SQL_NUMERIC_STRUCT g[ROW_SIZE]; SQLLEN gLen[ROW_SIZE]; SQLINTEGER intVal[ROW_SIZE]; SQLLEN intLen[ROW_SIZE]; sr = SQLBindCol(hStmt, 1, SQL_C_LONG, intVal, sizeof(SQLINTEGER), intLen); sr = SQLBindCol(hStmt, 2, SQL_C_NUMERIC, g, sizeof(SQL_NUMERIC_STRUCT), gLen); SQLHDESC hdesc = NULL; SQLGetStmtAttr(hStmt, SQL_ATTR_APP_ROW_DESC, &hdesc, 0, NULL); SQLSetDescField(hdesc, 2, SQL_DESC_PRECISION, (SQLPOINTER) 5, 0); SQLSetDescField(hdesc, 2, SQL_DESC_SCALE, (SQLPOINTER) 2, 0); SQLUSMALLINT rowStatus[ROW_SIZE]; sr = SQLSetStmtAttr(hStmt, SQL_ATTR_ROW_STATUS_PTR, rowStatus, 0); for (short i = 0; i < ROW_SIZE; i++) { memset(&g[i], '\0', sizeof(SQL_NUMERIC_STRUCT)); memset(g[i].val, 0, 16); } sr = SQLFetch(StatementHandle); </pre> <p>See the Microsoft ODBC API Reference at http://msdn.microsoft.com/en-us/library/ms713560%28v=VS.85%29.aspx.</p>

Known Issues

CR#	Description
	<p>Unsupported ODBC features. Adaptive Server ODBC Driver version 15.7 does not support the Kerberos network traffic encryption.</p> <p>Workaround: None.</p>
	<p>Behavior change when datetime parameter is out of range.</p> <p>Workaround: When you use Adaptive Server ODBC Driver 15.0 or earlier, or connect to Adaptive Server version 15.0.x or earlier, and the application binds a <code>datetime</code> parameter to an invalid <code>datetime</code> range, such as 01-01-0001, the Adaptive Server ODBC Driver returns error 30122, Invalid datetime field. Year is out of range.</p> <p>For an Adaptive Server ODBC Driver 15.5 that is connected to Adaptive Server 15.7, this behavior has changed. In the 15.7 versions, Adaptive Server ODBC Driver sends the date to Adaptive Server, and Adaptive Server returns an error. The error code returned is 247, Arithmetic overflow during implicit conversion of BIG-DATETIME value 'Jan 1 0001 12:00AM' to a DATETIME field, or something similar.</p>

Known Issues for SAP Adaptive Server ADO.NET Data Provider

Known problems and workarounds, if any, for SAP Adaptive Server ADO.NET Data Provider versions 2.157 and 4.157.

Table 2. SAP Adaptive Server ADO.NET Data Provider issues

CR#	Description
	<p>Limitation on precision for decimal and numeric datatypes.</p> <p>Workaround: The Adaptive Server ADO.NET Data Provider currently supports a maximum precision of 26 numbers for a <code>decimal</code> type. The underlying .NET structure and the corresponding Adaptive Server datatypes can handle a higher precision, and attempting to use a precision higher than 26 results in an exception. The Adaptive Server datatypes affected by this limitation are <code>decimal</code> and <code>numeric</code>.</p>

CR#	Description
	<p>Change in behavior when datetime parameter is out of range.</p> <p>Workaround: Previously, when you use Adaptive Server ADO.NET Data Provider, or connect to Adaptive Server version 15.0.x or earlier, and the application binds a date-time parameter to an invalid datetime range, such as 01-01-0001, the Adaptive Server ADO.NET Data Provider returns error 30122, Invalid datetime field. Year is out of range.</p> <p>For Adaptive Server ADO.NET Data Provider that is connected to Adaptive Server 15.7, this behavior has changed. In this case, Adaptive Server ADO.NET Data Provider sends the date to Adaptive Server, and Adaptive Server returns an error. The error code returned is 247, Arithmetic overflow during implicit conversion of BIGDATETIME value 'Jan 1 0001 12:00AM' to a DATETIME field, or something similar.</p>

Installer Issues

Known issues and workarounds, if any, that you might encounter when installing SDK for SAP ASE.

Table 3. Installer Issues

CR#	Description
595614	<p>On Microsoft Windows 2008, the installer can create the SDK installation directory only when you are logged in as an administrator, even if your role has permission to create directories.</p> <p>Workaround: Create the installation directory before running the installer.</p>
590282	<p>You cannot use the Tab and arrow keys on the keyboard to navigate the Choose Product Features window of the installation or uninstallation program.</p> <p>Workaround: Use the mouse to click the Choose Product Features window. This sets the focus on the window and you will be able to use your keyboard.</p>
588179	<p>When installing in console mode, some western characters display incorrectly.</p> <p>Workaround: Before you install SDK:</p> <ol style="list-style-type: none"> 1. Open a Command Prompt window. 2. Run chcp 1252 to change the code page to 1252. 3. Right-click the Command Prompt window title and select Properties. In the Font tab, select Lucida Console and click Ok. 4. Use the same Command Prompt window to run the installer in console mode.

Known Issues

CR#	Description
583979	<p>The installer does not validate feature names specified in the response file when you install in silent mode.</p> <p>Workaround: Ensure that the specified feature names are correct.</p>

General Issues

Known programming issues and workarounds, if any, for SAP Open Client products.

Table 4. Programming Issues

CR#	Description
	<p>Upgrading to a new version</p> <p>Workaround:</p> <p>For dynamically linked SAP Open Client applications (dblib, ctlib, and esql), recompile and relink with the SDK libraries that now include “syb” in the library names.</p> <hr/> <p>Note: If you have made any changes to the application files, you must recompile.</p> <hr/> <p>Ensure that the runtime libraries are for the same major release as the version used to build the application.</p>
	<p>System path restriction</p> <p>Workaround: Do not create a system path larger than 1K.</p>

Client-Library Issues

Known programming issues and workarounds, if any, of Client-Library.

Table 5. Programming issues of Client-Library

CR#	Description
	<p>Registered procedure notifications</p> <p>Workaround: The <code>CS_ASYNC_NOTIFICATIONS</code> connection property controls how a Client-Library application receives registered procedure notifications from an SAP Open Server application.</p> <p>Currently, the SAP Open Server application sends a notification to the client as one or more Tabular Data Stream™ (TDS) packets. However, the client application does not learn of the notification until Client-Library reads the notification packets from the connection and invokes the application's notification callback.</p> <p>To trigger the application's notification callback on a connection that is otherwise idle, set <code>CS_ASYNC_NOTIFICATIONS</code> to <code>CS_TRUE</code> for <code>ct_poll</code>. In other words, unless the application is actively sending commands and reading results on the connection, it does not receive notifications when <code>CS_ASYNC_NOTIFICATIONS</code> is <code>CS_FALSE</code> (the default).</p>

Embedded SQL Issues

Known programming issues and workaround, if any, specific to Embedded SQL.

- Embedded SQL/C version 15.0 and later.
- Embedded SQL/COBOL version 15.0 and later.

For a list of platforms on which Embedded SQL/C and Embedded SQL/COBOL are available, see the *New Features Bulletin SAP Open Server and SDK for SAP ASE 16.0 for Windows, Linux, and UNIX*.

Table 6. Embedded SQL Issues

CR#	Description
	<p>Precompiler -p option</p> <p>Workaround: Applications that rely on inserting empty strings instead of NULL strings when the host string variable is empty does not work if the <code>-p</code> option is turned on. The persistent bind implementation prevents Embedded SQL from circumventing Client-Library protocol (which inserts NULL strings).</p>

Known Issues

CR#	Description
	<p>Embedded SQL/C sample programs</p> <p>Workaround: When you enter an incorrect password, sample programs <code>example1.pc</code> and <code>example2.pc</code> generate incorrect error numbers. You can ignore these numbers.</p>
	<p>Embedded SQL/COBOL sample programs</p> <p>Workaround:</p> <p>The shared library path for compiling the sample programs must include <code>%COBDIR%\lib</code> and <code>%SYBASE%\%SYBASE_OCS%\lib</code>. The path must also include <code>%COBDIR%\bin</code> and <code>%SYBASE%\bin</code>.</p>

Documentation Changes

Updates, corrections, and clarifications to the documentation released with SDK for SAP ASE 16.0.

Enabling DB-Library Kerberos Authentication Component

To use the Kerberos Authentication Component capability in SDK for SAP ASE, you must enable the DB-Library Kerberos Authentication Component.

1. In DB-Library, include `sybdbn.h` instead of `sybdb.h`.
2. Using `dbsetversion`, set the DB-Library version to `DBVERSION_100` or above. If you do not set DB-Library to the latest version, DB-Library reverts to the default version of `DBVERSION_46`, which does not support the new option at the Tabular Data Stream (TDS) protocol level.
3. Enable the new option using `DBSETLNETWORKAUTH` or `DBSETLMUTUALAUTH`, then call `dbopen`.

Note: If the server's principal name does not match the server's directory entry name, call `DBSETLSERVERPRINCIPAL` to set the server's principal name before calling `dbopen`.

All calls to `DBSETLNETWORKAUTH`, `DBSETLMUTUALAUTH`, or `DBSETLSERVERPRINCIPAL` after calling `dbopen` remain invalid until the next time the application calls `dbopen`.

4. Recompile the application.

No Support for ADO.NET Data Provider for .NET 2.0 and .NET 3.0

Starting with version 16.0, SDK for SAP ASE and SAP Open Server do not support for ADO.NET Data Provider for .NET 2.0 and .NET 3.0 Framework.

Ignore all the information provided in the *Adaptive Server® Enterprise ADO.NET Data Provider Users Guide* for .NET 2.0 and .NET 3.0 including from these sections:

- *Chapter 1: Understanding and Deploying Adaptive Server Enterprise ADO.NET Data Provider -> Deploying Adaptive Server ADO.NET Data Provider.*
- *Chapter 2: Using the Sample Applications*
- *Chapter 5: Supported Microsoft ADO.NET features*

Programmers Supplement

Updates, corrections, and clarifications to the *Open Client and Open Server Programmers Supplement Guide*.

bcp Behavior Changes

Changes to **bcp** behavior in *Open Client and Open Server Programmers Supplement > Utility Commands > bcp*.

bcp does not insert any row that contains a noncharacter entry that exceeds the length of the corresponding target table column. For example, **bcp** does not insert a row when an input value of 65000 is supplied for a target table column of type `smallint`. Instead, **bcp** reports a conversion error and skips the row. Also, **bcp** does not insert truncated noncharacter data into the table. The conversion error is as follows:

```
cs_convert: cslib user api layer: common library error: The result is truncated because the conversion/operation resulted in overflow
```

To track data that violates noncharacter type length requirements, run **bcp** with the **-e log-file name** option. **bcp** records the row and the column number of the rejected data, the error message, and the data in the log file you specify.

bcp truncates and inserts any row that contains a character type entry that exceeds the length of the corresponding target table column. Although the same overflow message is raised as for noncharacter type overflows, an error file is not created.

Multiple Data File Usage Clarification

Additional information for multiple data file usage clarification in *Open Client and Open Server Programmers Supplement > Utility Commands > bcp*.

When using the **bcp** command, you can specify multiple partitions and data files. Use commas to separate each partition name or data file.

- With **bcp out**, multiple files are used only with partitions in a one-to-one relationship.
- With **bcp in**, multiple files can be used with or without partitions. If you use them without partitions, input data files are read in order of their listing in the command line arguments.

Batched Parameters Samples

See *Support for batched parameters* under 15.7 *New Features for ESD #4* in the *New Features Bulletin SAP Open Server and SDK for SAP ASE 16.0 for Windows, Linux, and UNIX*.

Clarification on Statement for Meaning SQLCODE=0

Open Client Embedded SQL/COBOL Programmers Guide > Handling Errors > Testing for errors > Using SQLCODE meaning for *SQLCODE=0* is incorrect.

Read the correct meaning for *SQLCODE=0* as `no error occurred` or `no error occurred but warning might have been occurred`.

Correction to sqlwarn flags table- sqlwarn[2]

Embedded SQL™/C Programmers Guide and *Embedded SQL™/COBOL Programmers Guide > Handling Errors > Testing for warning conditions > sqlwarn flags* correction to the **sqlwarn[2]** description.

If **sqlwarn[2]** is set to *W* character:

- At least one null value was eliminated from the argument set of a function.
- The input sent to SAP Adaptive Server Enterprise contained a null value in an illegal context, such as in an expression or as an input value to a table that prohibits null values.

SQLCA Structure - sqlwarn[2] Description

Client-Library/C Reference Manual > Client-Library Topics > Client-Library and SQL Structures > SQLCA structure correction to the **sqlwarn[2]** description.

If **sqlwarn[2]** is *W* variable:

- At least one null value was eliminated from the argument set of a function.
- The input sent to Adaptive Server Enterprise contained a null value in an illegal context, such as in an expression or as an input value to a table that prohibits null values.

resultlen Parameter Description for cs_convert Routine

Correction to *resultlen* parameter description for **cs_convert** routine in the *Open Client and Open Server Common Libraries Reference Manual*.

The reference manual incorrectly documents that **cs_convert()** sets **resultlen* to CS_UNUSED when **cs_convert()** fails; **cs_convert()** does not set **resultlen* to CS_UNUSED upon failure.

Consider the return value of **cs_convert()** rather than the value of **resultlen* to check if the routine has succeeded.

Update to the Connection Parameters Table

The connection parameter table has been updated with the *DSServiceName* property in *Adaptive Server Enterprise 15.7 SP100 ODBC Driver by Sybase Users Guide for Microsoft Windows and UNIX > Connections to a Database > Connections Using a Datasource*.

Property Names	Description	Required	Default Value
DSServiceName	The service name of the LDAP Sybase server object.	No	Empty

Obtaining Help and Additional Information

Use the Product Documentation site and online help to learn more about this product release.

- Product Documentation at <http://sybooks.sybase.com/> – online documentation that you can access using a standard Web browser. You can browse documents online, or download them as PDFs. The Web site also has links to other resources, such as white papers, community forums, maintenance releases, and support content.
- Online help in the product, if available.

To read or print PDF documents, you need Adobe Acrobat Reader, which is available as a free download from the *Adobe* Web site.

Note: A more recent release bulletin, with critical product or document information added after the product release, may be available from the Product Documentation Web site.

Technical Support

Get support for SAP® products.

If your organization has purchased a support contract for this product, then one or more of your colleagues is designated as an authorized support contact. If you have any questions, or if you need assistance during the installation process, ask a designated person to contact Technical Support as specified in your contract:

- Sybase Technical Support or the Sybase subsidiary in your area
- SAP Technical Support

Customers with an SAP support contract can obtain support for this product at the SAP support site, <http://service.sap.com/sybase/support>. You can also find information about Sybase support migration at this location (login may be required).

Customers with a Sybase support contract can obtain support for this product at <http://www.sybase.com/support> (login required).

Downloading Product Updates

Get maintenance releases, support packages and patches, and related information.

- If you purchased the product directly from Sybase or from an authorized Sybase reseller:
 - a) Go to <http://www.sybase.com/support>.
 - b) Select **Support > EBFs/Maintenance**.

Obtaining Help and Additional Information

- c) If prompted, enter your MySybase user name and password.
- d) (Optional) Select a filter, a time frame, or both, and click **Go**.
- e) Select a product.

Padlock icons indicate that you do not have download authorization for certain EBF/Maintenance releases because you are not registered as an authorized support contact. If you have not registered, but have valid information provided by your Sybase representative or through your support contract, click **My Account** to add the “Technical Support Contact” role to your MySybase profile.

- f) Click the **Info** icon to display the EBF/Maintenance report, or click the product description to download the software.
- If you ordered your product under an SAP contract:
 - a) Go to <http://service.sap.com/swdc> and log in if prompted.
 - b) Select **Search for Software Downloads** and enter the name of your product. Click **Search**.

Product and Component Certifications

Certification reports verify Sybase product performance on a particular platform.

To find the latest information about certifications:

- For partner product certifications, go to http://www.sybase.com/detail_list?id=9784
- For platform certifications, go to <http://certification.sybase.com/ucr/search.do>

Accessibility Features

Accessibility ensures access to electronic information for all users, including those with disabilities.

Documentation for this product is available in an HTML version that is designed for accessibility.

Vision impaired users can navigate through the online document with an adaptive technology such as a screen reader, or view it with a screen enlarger.

HTML documentation has been tested for compliance with accessibility requirements of Section 508 of the U.S Rehabilitation Act. Documents that comply with Section 508 generally also meet non-U.S. accessibility guidelines, such as the World Wide Web Consortium (W3C) guidelines for Web sites.

Note: You may need to configure your accessibility tool for optimal use. Some screen readers pronounce text based on its case; for example, they pronounce ALL UPPERCASE TEXT as initials, and MixedCase Text as words. You might find it helpful to configure your tool to announce syntax conventions. Consult the documentation for your tool.

For information about how Sybase supports accessibility, see the Sybase Accessibility site: <http://www.sybase.com/products/accessibility>. The site includes links to information about Section 508 and W3C standards.

You may find additional information about accessibility features in the product documentation.

