Release Bulletin
Open Client/Server Products Release 10.0.3
for Digital OpenVMS Alpha

The following table lists section titles and page numbers for this *Release Bulletin*:

1. Product Summary

Enclosed are Open Client™/C, Open Server™, and Embedded SQL™ release 10.0.3 products, which are compatible with the following platform and operating system configuration:

- Digital OpenVMS 1.5

1.1. Compatibility Issues

Note the following compatibility issues:

- Header files that are included in an application must be of the same release level as the library with which the application is linked

- Embedded SQL applications built with the 10.0 precompiler must use SQL Server™ release 10.0. Embedded SQL applications built with the 10.0.1 or later precompiler must use SQL Server release 10.0.1 or later.

- Release 10.0.x Embedded SQL sample programs are not compatible with SQL Server release 10.0.

- Bulk copy routines cannot be embedded in applications that call 2.x Open Server routines.

- Releases 4.x and 5.0 of SYBASE SQL Toolset™ (APT-Library™ and Report-Library applications) are not compatible with 10.x Open Client libraries.

1.2. Release Functionality

There is no new functionality for the Open Client/Server products in release 10.0.3. See the following product-specific Reference Manuals for information on release 10.0 functionality:

- *Open Client Client-Library/C Reference Manual*

- *Open Client DB-Library/C Reference Manual*

- *Open Server Server-Library/C Reference Manual*

- *Open Client Embedded SQL/C Programmer's Guide*

- *Open Client Embedded SQL/COBOL Programmer's Guide*

1.3. Configuration Changes for UCX Protocol

If you are using the UCX network protocol, you must load the INET device emulator (provided with the UCX kit) before you start an Open Client/Server product. Open Client/Server products do not work if the INET driver is not loaded. Use the *SYS$MANAGER:UCX$LOAD_INETDRIVER.COM* command file to load the INET emulator.

2. Release Contents

The following table lists the libraries and utilities included with each Sybase Open Client/Server product:

Open Client	Open Server	Embedded SQL
Client-Library™	Client-Library	Client-Library
CS-Library	CS-Library	CS-Library
DB-Library™	Server-Library	**cpre** utility
Bulk Library	Bulk Library	**cobpre** utility
isql utility	**isql** utility	
bcp utility		
defncopy utility		

3. Special Installation and Configuration Instructions

This section provides information about special installation issues. See the *Open Client/Server Installation Guide for DEC VAX OpenVMS and DEC AXP OpenVMS* for detailed instructions on installing the software.

3.1. Using *sybinit*

The /**language** option of the **sybinit** utility is not currently enabled for French or German; therefore, **sybinit** produces messages in U.S. English only. This does not affect the localization of any Open Client, Embedded SQL, or Open Server application for which language modules are available.

3.2. Software Loading Time

Loading the software may take an hour or more, depending on media positioning time, how many products you are loading, and the size of the products you are loading. Do not interrupt the installation. **sybload** will display a list of installed products when the software is loaded.

3.3. Using *sybinit* Remotely

If you plan to use **sybinit** remotely, make sure the */etc/hosts* file on your machine contains an entry for the remote machine. For more information, see your operation system documentation regarding Network Information Services (NIS).

3.4. Mounting the Sybase CD-ROM on an InfoServer

If you mount your Sybase CD-ROM disc on an InfoServer, you may get a message like the following:

```
%MOUNT-I-OPRQST, Device _DAD52: is not available for mounting.
```

where DAD52 is the logical name pointing to the device on the InfoServer.

To avoid this error, include a period (.) at the end of the volume name when you bind the logical name to the device name using LAD:

```
LADCP>bind sybase.
LADCP>exit
```

The period distinguishes the volume name SYBASE from the logical name SYBASE.

3.5. Software Media Formats

The software media formats are incorrectly listed in the *Open Client/Server Installation Guide for DEC VAX OpenVMS and DEC AXP OpenVMS*. Your software is shipped on one of the following kinds of media:

Type of Media	Format
Tape	QIC-120 1/4-inch cartridge
	4-mm DAT
CD-ROM	ISO-9660

4. Open Client

4.1. Client-Library

4.1.1. Compatibility Issues

Open Client release 10.0.3 will overwrite library files required by SQL Toolset if installed in the same directory. If SQL Toolset and Open Client are currently installed in the same directory, reinstall SQL Toolset in a separate directory before upgrading or installing release 10.0.3.

4.1.2. LANG Symbol

Do not use a LANG logical name. Doing so results in a naming conflict and the following error message:

```
The context allocation routine failed when it
tried to load localization files!!
```

4.1.3. Network I/O and Operating System Signals

On Digital OpenVMS Alpha, Client-Library uses interrupt-driven I/O for all network I/O modes, including synchronous mode. This can affect the coding of some applications.

On Digital OpenVMS Alpha, Client-Library applications that require their own signal handler must install any needed signal handlers with ct_callback. Programs that make UNIX system calls should check for system-call failure caused by system interrupts and reissue any system calls that are interrupted.

4.1.4. Dynamic SQL and Database Permissions

In order to issue dynamic SQL commands against a SQL Server, the application user must have create procedure permission in the current database. If the user does not have create procedure permission, the ct_dynamic(CS_PREPARE) command will fail. See Chapter 17, "Granting Permissions on Objects and Commands," of the *Transact-SQL User's Guide* for more information about command permissions.

4.1.5. *ct_poll*

Do not call **ct_poll** at the system interrupt level. On Digital OpenVMS Alpha, the application's callback routines can execute at the system interrupt level.

Do not call **ct_poll** from within any Client-Library callback function or within any other function that can execute at the system interrupt level. Note that the Client-Library Reference Manual already prohibits calling **ct_poll** from callback types other than completion callbacks or signal callbacks.

Calling **ct_poll** at the system interrupt level can cause corruption of Open Client/Server internal resources and unplanned recursion in the application.

4.1.6. Asynchronous Programming

To properly clean up Client-Library, wait until all asynchronous operations are complete, then call **ct_exit**.

If an asynchronous operation is in progress when **ct_exit** is called, the routine returns CS_FAIL and does not clean up Client-Library. This is true even with the CS_FORCE_EXIT option.

Client-Library provides fully-asynchronous support on Digital OpenVMS Alpha. For more information, see the "Asynchronous Programming" topics page in the *Open Client Client-Library/C Reference Manual.*

4.1.7. Registered Procedure Notifications

The CS_ASYNC_NOTIFS connection property controls how a Client-Library application receives registered procedure notifications from an Open Server application.

The Open Server sends a notification to the client as one or more Tabular Data Stream™ (TDS) packets. 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.

If CS_ASYNC_NOTIFS is set to CS_FALSE, Client-Library triggers the notification callback only when the application is actively reading from the connection. If the connection is idle when the server sends a notification, then the notification callback is not triggered

until the application calls a Client-Library routine that reads from the connection.

If CS_ASYNC_NOTIFS is set to CS_TRUE, Client-Library triggers the notification callback as soon as it receives the notification from the server. Client-Library triggers the notification callback immediately, even if the connection is idle when the notification arrives.

The default value for CS_ASYNC_NOTIFS is CS_FALSE. If the Client-Library connection is used exclusively for receiving notifications from a server, CS_ASYNC_NOTIFS must be set to CS_TRUE. Otherwise, the client will not receive the notifications from the server.

CS_ASYNC_NOTIFS can be set with **ct_con_props**. The default value for CS_ASYNC_NOTIFS is CS_FALSE.

4.1.8. CS_NOINTERRUPT Connection Property

In the current release of Client-Library, CS_NOINTERRUPT does not prevent notification events from occurring.

4.1.9. Documentation Issues

The header file in Chapter 3 of the *Open Client/Server Supplement* shows EX_USERNAME set to "user" and EX_PASSWORD set to "server_password". In the actual header file, EX_USERNAME is set to "sa" and EX_PASSWORD is set to " ".

4.1.10. Known Problems

Sample Program File Issues

Sample program file *i18n.c*, which demonstrates the localization features available in Client-Library, is not described in the *Open Client/Server Supplement*. See the comments in the program for a description.

Sample program file *i18n.c* is not in the makefile "all" target list. The "all" target list for *SYBASE_SYSTEM:[SYBASE.SAMPLE.CTLIBRARY.MAKEFILE]* currently reads:

```
all:    $(TARGET1) $(TARGET2) $(TARGET3) $(TARGET4)
        $(TARGET5) $(TARGET6)
```

Edit the "all" target list as follows before running the sample program:

```
all:    $(TARGET1) $(TARGET2) $(TARGET3) $(TARGET4)
        $(TARGET5) $(TARGET6) $(TARGET7)
```

Required Logical Names

The Client-Library README file excludes SYBASE_SYSTEM from the list of logical names needed to build examples. See the *Open Client/Server Installation Guide for DEC OpenVMS VAX and OpenVMS AXP* for instructions on defining SYBASE_SYSTEM.

Problem Reports

For complete listings of known problems and fixed bugs, see the following files in the *SYBASE_SYSTEM:[SYBASE.INSTALL.SPR]* directory:

- *spr_ctlib* – System problem reports
- *cpr_ctlib* – Closed problem reports

4.2. DB-Library

4.2.1. *dbrpcparam* Warning

The *Open Client DB-Library/C Reference Manual* contains the following warning:

> An application must not write over *value* (the pointer to the RPC parameter) until after it has called **dbrpcsend** to send the remote procedure call to the server.

In some previous releases of DB-Library 10.0.x, you could ignore this warning. However, in release 10.0.3, the RPC will fail or give incorrect results if *value* is changed before **dbrpcsend** is called.

4.2.2. Recompile 4.x and 10.0 DB-Library Applications

Applications written for DB-Library release 4.x and 10.0 must be recompiled to use DB-Library release 10.0.x.

4.2.3. Known Problems

Header File in Sample Programs

To run the sample programs, modify the USER and PASSWORD definitions in the SYBDBEX.H sample header file to the appropriate known values.

Sample Programs Issues

Example 2 contains a coding error in line 132. Line 132 currently reads:

```
dbfcmd(dbproc,"values('%s') /n", (char *)cmdbuf);
```

Edit line 132 as follows before running the sample program:

```
dbfcmd(dbproc,"values(%s) /n", (char *)cmdbuf);
```

Example 12 requires SQL Server release 4.2 or later, the *interpubs* database, and does not work with double-byte character sets in French. Use the **installintpubs** script to install the database. The **installintpubs** script is supplied with SQL Server and is located in the *SYBASE_SYSTEM:[SYBASE.SCRIPTS.ISO_1]* directory.

Examples 3, 9, 10, and 11 require that the *pubs2* database is installed on the server. For more details, see the *README* file in the *SYBASE_SYSTEM:[SYBASE.SAMPLE.DBLIBRARY]* directory.

Problem Reports

For complete listings of known problems and fixed bugs, see the following files in the *SYBASE_SYSTEM:[SYABSE.INSTALL.SPR]* directory:

- *spr_dblib* – System problem reports
- *cpr_dblib* – Closed problem reports

5. Open Server

This section contains information specific to release 10.0.3 of Open Server Server-Library. For a list of Open Server components, see section 2. "Release Contents" on page 3.

5.1. Compatibility Issues

To configure and run Open Server 2.0 applications in a 10.0 environment, see the "Migration from 2.0 to 10.0" topic page in Chapter 2 of the *Open Server Server-Library/C Reference Manual*.

5.2. Known Problems

5.2.1. Sample Program Issues

Define a symbol cc in the *MAKE_SRVLIB_SHARE.COM* makefile as follows:

```
cc :== cc/stand=vaxc/float=ieee
```

5.2.2. *lang* Sample Program

Do not confuse the *LANG.LOG* file with the *LANGUAGE.LOG* file. *LANG.LOG* is the *lang* sample program log file. *LANGUAGE.LOG* records the language entered by the user when running the program.

These log files are written to the directory from which the sample program starts.

5.2.3. Error Messages

Server messages 5703 and 5704 are incorrectly reported as errors. These messages are informational only.

5.2.4. Problem Reports

For complete listings of known problems and fixed bugs, see the following files in the *SYBASE_SYSTEM:[SYABSE.INSTALL.SPR]* directory:

- *spr_srvlib* – System problem reports
- *cpr_srvlib* – Closed problem reports

These log files are written to the directory from which the sample program starts.

6. Embedded SQL

The following section contains information about release 10.0.3 of Embedded SQL. For a list of Embedded SQL components, see section 2. "Release Contents" on page 3.

6.1. Compatibility Issues

The COBOL version of this product is compatible with the VMS COBOL compiler.

6.2. New Functionality

There is no new functionality for Embedded SQL in release 10.0.3. The following section describes new features added in releases 10.0.1 and 10.0.2. See the *Open Client Embedded SQL/C Programmer's Guide* and *Open Client Embedded SQL/COBOL Programmer's Guide* for information on release 10.0 functionality.

6.2.1. Embedded SQL/C and SQL/COBOL: New Features

select into Statement

The Transact-SQL® select into statement is fully supported.

Execute Stored Procedure into host variable list

If a stored procedure returns exactly one row of data, it can accept an into host variable list clause.

For example:

```
create stored procedure emp_salary (emp_id int)
   as
       select salary from employees
           where emp_no = @emp_id
   exec sql exec emp_salary (:this_emp)
       into : salary; printf ("salary is /n % f /n",
           salary);
```

/GENERATE Option

The /GENERATE option enables the generated isql file to drop generated stored procedures automatically before they are created. You do not need to drop them manually.

6.2.2. Embedded SQL/C: New Features

Storage Class Specifiers

You can use the following storage class specifiers: auto, extern, register, and static.

Zero-Length Strings

In Embedded SQL/C 10.0 and 10.0.1, an input host variable containing a zero-length string appeared to SQL Server as NULL. In releases 10.0.2 and later, it appears to SQL Server as a single-space character.

For example:

```
hv = "";
exec sql insert into T1 (C1) values (:hv);
```

In releases 10.0 and 10.0.1, this statement produces a NULL value for *C1*. In releases 10.0.2 and later, this statement produces a value of a single-space character for *C1*.

Structure and Pointer Variables

Typedefs are legal if they are declared in an Embedded SQL declare section.

6.2.3. Embedded SQL/COBOL: New Features

COBOL Datatypes

Host variables with usage COMP (and COMP-5 for UNIX platforms) can now have the letter "v" in their PICs. Unsigned COMP (with no letter "s" in their PICs) are supported.

All level numbers, including 78 and 88, are allowed.

Declaration clauses (PIC, USAGE, SIGN, SYNC, and so on) can be given in any order.

Sequence Numbers

Sequence numbers are legal in columns 1–6 except inside an `exec sql` or a `declare section` statement.

6.3. Known Problems

6.3.1. General Issues

The following functionality is not supported in this release:

- SQLSTATE
- Update or insert columns of *text* or *image* datatypes
- Multiple result sets

Connecting with SQL Server Release 10.0

Disregard SQLCODE error -3807, which reads:

```
The datastream specifies a wrong option or
command. The datastream is MULTARG. This is an
internal error.
```

The connection will be established.

Character String Host Variable

10.0 and 10.0.1 SQL Server reads a character string comprised of all spaces as "NULL" if the string is sent as one of the following:

- An input host variable to a statement for which a stored procedure is generated, or
- A parameter to a stored procedure executed with **EXEC SQL EXEC** .

To prevent errors, set string right truncation to "off" by executing one of the following options immediately after making the connection:

EXEC SQL SET STRING_RTRUNCATION OFF ;

or

EXEC SQL SET STRING_RTRUNCATION OFF END-EXEC

Dynamic SQL and Database Permissions

In order to issue dynamic SQL commands against a SQL Server, the application user must have "create procedure" permission in the current database. If the user does not have "create procedure" permission, the **ct_dynamic**(CS_PREPARE) command will fail. See Chapter 17, "Granting Permissions on Objects and Commands," in the *Transact-SQL User's Guide* for more information about command permissions.

Sample Programs

Before compiling the two samples, edit the *sybsqlex.h* file to provide legal values for user ID and password.

Documentation Issues

Examples 3 and 4 mentioned in the *Open Client/Server Supplement* are not included with the software.

6.3.2. Embedded SQL/C Problems

Documentation Issues

The **-w** flag for **cpre** is not documented in the *Open Client/Server Supplement*. The **-w** flag disables the display of precompiler warning messages to the screen or a listing file.

The example in Chapter 6 of the *Open Client Embedded SQL/C Programmer's Guide* section entitled "Using Cursors to Update and Delete Rows" is missing a **break** statement, resulting in an infinite loop. The example should read as follows:

```
exec sql declare c1 cursor for
    select title_id, royalty, ytd_sales
    from titles
    where royalty < 25;

exec sql open c1;

for (;;)
{
    exec sql fetch c1 into :title, :roy, :sales;
    if (sqlcode == 100) break;
    if (sales > 10000)
        exec sql update titles
            set royalty = royalty + :delta
            where current of c1;
}
exec sql close c1;
```

Problem Reports

For complete listings of known problems and fixed bugs, see the following files in the *SYBASE_SYSTEM:[SYABSE.INSTALL.SPR]* directory:

- *spr_esqlc* – System problem reports
- *cpr_esqlc* – Closed problem reports

6.3.3. Embedded SQL/COBOL Problems

Shared Libraries

Shared libraries for Embedded SQL/COBOL are not supported in this release.

Problem Reports

For complete listings of known problems and fixed bugs, see the following files in the *SYBASE_SYSTEM:[SYABSE.INSTALL.SPR]* directory:

- *spr_esqlcob* – System problem reports
- *cpr_esqlcob* – Closed problem reports

7. Standalone Utilities

This section contains information relating to the Open Client/Server utility programs.

7.1. Bulk Copy Sample Program

The *blktxt* sample program file, which uses bulk copy routines, must be built statically.

7.2. *isql*

When using the program **isql** to select a national language, make sure the selected national language supports the current character set used by the client connection.

For example, if the client logged in with the character set iso_1 and the national language us_english, it is acceptable to change the national language to French, but not to Japanese, since Japanese does not support the iso_1 character set.

8. Technical Support

If you have any questions about this installation or need assistance during the installation process, please contact Sybase Technical Support or the Sybase subsidiary in your area.

Please contact the distributor from which your software was purchased if you do not know how to contact Sybase Technical Support.

9. Resolved Problems

The following tables highlight, by product, some of the problems that have been resolved in the 10.0.3 release. For a complete list of fixed problems, see the *cpr* files in the following directory: *SYBASE_SYSTEM:[SYABSE.INSTALL.SPR].*

Table 1:   bcp

Platform	Sybase Bug ID	Description of Problem
Generic	63590	**Skipping Columns Functionality** The skipping columns functionality of the **bcp** format file was broken.

Table 2:   Common Library

Platform	Sybase Bug ID	Description of Problem
Generic	61519	**round Function Error** When the **round** function was used on *decimal* or *numeric* datatypes with integer values of 1, a value of 0 was returned. When the **round** function was used on *decimal* or *numeric* datatypes with integer values of 0 or 2, the correct results were returned.
Generic	62621	**Truncation Error** When an invalid value was inserted for a *numeric* or *decimal* datatype, the value was sometimes truncated without an error message being issued.
Generic	64613	**Async Manager Hang** Requests from multiple threads sometimes caused the async manager to hang.
Generic	64739	**Hex Value Calculation Error** Assigning a hex value in a stored procedure caused **isql** to crash.
Generic	65163	**Datatype Conversion Error** Conversion from a *numeric* or *decimal* datatype to a *bit* datatype returned the opposite of the expected value.

Table 3:   CS-Library

Platform	Sybase Bug ID	Description of Problem
Generic	52460	**Memory Leak in ct_diag** The **ct_diag** (CLEAR) operation did not free the memory used to store the extended error data.

Table 3:   CS-Library (continued)

Platform	Sybase Bug ID	Description of Problem
Generic	55903	**CS_SEC_ENCRYPTION** Setting CS_SEC_ENCRYPTION to CS_TRUE caused **ct_connect** to fail.
Generic	59344	**cs_locale System Failure** Calling **cs_locale** with CS_GET and CS_SYB_SORTORDER caused the system to fail.
Generic	64985	**Internationalization Library Open File Function Error** The internationalization Support Library open file function opened files only in read mode.
Generic	65795	**Severity State Error** **cs_diag_client_handler** did not check the SQLSTATE of the message it was queuing, causing a severity state error.
Generic	65889	**cs_locale Error** The **cs_locale** routine occasionally failed when setting the sort order (when the type was CS_SYB_SORTORDER).
Generic	66350	**cs_ctx_drop Segment Fault** When running an ESQL application, clearing the objects using **cs_ctx_drop** caused the application to segment fault in **cs__obj_clear**.
Generic	66539	**Cursor Name Error** If the cursor declaration failed in a passthrough application, Open Server kept the cursor descriptor for the failed cursor declaration. This caused problems if the client application tried to use the cursor name again.
Generic	66541	**Cursor Error (Table Not Found)** In a passthrough application, if the client opened a cursor on a nonexistent table, the client was disconnected. Open Server generated a fatal process error instead of an informational error message.
Generic	69467	**cs_convert Failure** The CS-Library routine **cs_convert** failed when converting from null terminated strings to CS_NUMERIC.

Table 4:   Client-Library

Platform	Sybase Bug ID	Description of Problem
Generic	59104	**Memory Leak in ct_diag** The use of **ct_diag** with extended error data caused a memory leak in Client-Library.

Table 4: Client-Library (continued)

Platform	Sybase Bug ID	Description of Problem
Generic	60032	**Scale Conversion Error for NUMERIC Parameter** Client-Library applications received a scale conversion message from the server when opening a cursor using a NUMERIC parameter. The error message was 241, "Scale error during implicit conversion of type NUMERIC (DECIMAL)...".
Generic	60684	**Canceling a Cursor Command** Applications crashed when canceling a cursor command.
Generic	61482	ct_cancel Calling ct_cancel did not set the appropriate flags for results processing. This caused result processing to recognize that a read was posted when a write was expected.
Generic	62429	**Asynchronous Call Error** Calls were occurring synchronously when they should have been asynchronous.
Generic	62613	**State Transition Table Error Message** The state TDSST_CURSOR_RESULTS did not include TDSRD_STATUS as a legal event.
Generic	63227	**Segmentation Fault if maxlength Exceeded** Client-Library applications core dumped if maxlength (255) was exceeded for type CS_CHAR_TYPE. No error message was received.
Generic	64199	**Connection Closure Error** Client-Library applications core dumped if connections were closed in the same order as they were opened.
Generic	64330	**Callback Error** Client-Library did not call application callbacks firing even though it had received data from a server that needed to be processed.
Generic	64349	**Notifications** Client-Library applications crashed when receiving too many notifications.
Generic	64493	**Bulk-Library Return Error** Bulk-Library calls always returned CS_SUCCEED with ASYNC_IO on, causing the application to hang or crash.
Generic	64568	**Common Library and CS-Library** The client application crashed in Common Library (*libcomn*) and CS-Library when a notification was received because the memory allocated for the user data was freed twice.
Generic	66111	**Memory Leak in ct_init and ct_connect** There were small memory leaks in ct_init and ct_connect.

Table 4: Client-Library (continued)

Platform	Sybase Bug ID	Description of Problem
Generic	66177	**CS_ASYNC_NOTIFS** Attempting to call **ct_dynamic** with the CS_ASYNC_NOTIFS set to CS_TRUE generated the following Client-Library error message "A read was attempted on a connection already executing a read"
Generic	66236	**ct_results Failure** **ct_results** had a state failure after a send data command was set. Client-Library reported error 84018957.
Generic	66921	**ct_describe Error** When calling **ct_describe** to get column information, the status field always returned zero for IDENTITY columns.
Generic	67384	***numeric* and *decimal* Datatype Length Error** When *numeric* or *decimal* datatypes were passed to the server, Client-Library returned a fixed length (that is, sizeof(CS_NUMERIC). A *numeric* or *decimal* datatype should have a variable length based on whatever is in the buffer of CS_NUMERIC.
Generic	68145	**ct_data_info State Error** When an application had state checking turned on and was using cursors to retrieve text data, the **ct_data_info** routine did not correctly retrieve the CS_IODESC structure. Instead, **ct_data_info** returned a state error, incorrectly saying that **ct_data_info** cannot be called after **ct_results** returns CS_CURSOR_RESULTS.
Generic	69818	Incorrect Error Client-Library returned the wrong error to the user when, in the process of setting up options in response to a **ct_options** call, it received an error from the SQL Server. The incorrect error was "Internal TDS error, error received while processing TDS."
Macintosh	65838	**Notification Callbacks** Notification callback functions were not called when a notification event was sent to the client.
Microsoft Windows	64073	**cs_ctx_global** **cs_ctx_global** caused Embedded SQL applications to segment fault in **tcllib** when multiple instances were run.
Microsoft Windows	69939	**Code Segments** Client-Library occasionally grabbed 200K of low DOS memory.
Microsoft Windows	69107	**Global Protection Faults** Client-Library occasionally caused global protection faults due to an internal problem.

Table 5:   DB-Library

Platform	Sybase Bug ID	Description of Problem
Generic	61191	**Compiling with ANSI** The sample programs for DB-Library did not compile with ANSI compilers.
Generic	65138	**Bulk Copy Sign Error** When performing a bulk copy using **bcp**, floating point datatypes of value -0 were inserted as -0.0, not 0.0.
Generic	65203	**dbexit Segmentation Error** Opening a cursor that returned 0 rows caused **dbexit** to crash.
Generic	65791	**dbrpcparam** **dbrpcparam** stored *float* datatypes incorrectly. For example, 0.00001 was stored as 0.
Generic	66164	**bcp Utility -c Flag** When **bcp** output using the **-c** flag, the resulting text file had "\r\r\n" at the end of a line instead of "\r\n". Also, the System 10™ **bcp** utility in OS/2 failed when reading a text file that ended with "^Z".
Generic	66241	**Retrieving a NULL Value** DB-Library clients hung when retrieving a row containing a NULL value. **dbvarlen** always reported 0 for decimal columns, even when the column allowed NULL.
Generic	66271	**4.6 Open Client Compatibility** When pre-4.6 clients connected to a 10.x release of SQL Server through Open Server, the packet size was manipulated incorrectly. This caused the client process to be marked dead.
Generic	66766	**isql Crash** **isql** crashed when printing compute rows.
Microsoft Windows	65800	**dbsetopt** The **dbsetopt** (DBOPTOEM to ANSI) function call caused the application to crash.
Microsoft Windows	65801	**10.0.2p2 sqledit** Open Client release 10.0.2p2 **sqledit** utility could not load a file after picking the new function.
Microsoft Windows	69773	**Binary Compatibility Layer** The 4.2 to 10.0 Binary Compatibility Layer could not handle a NULL message handler or NULL error handler passed in from the user.
OpenVMS	62209	**dbopen_a** The async DB-Library interface was broken. **dbopen_a** failed.

Table 6: Embedded SQL/C and SQL/COBOL

Platform	Sybase Bug ID	Description of Problem
Generic	63959	**RPC Names Not Recognized** Several flavors of RPC were not recognized in EXECUTE statements. In particular, *server.database.owner.procname* was recognized if it was followed by ";*number*".
Generic	66066	**SET DESCRIPTOR DATA** An attempt to set type based on host variable type failed for SET DESCRIPTOR DATA. The operation succeeded if the type was set explicitly.
Generic	67878	**Cursors Not Cleared Properly** In a threaded environment, connections were not scoped to the cursor that initiated the connection. When a connection was disconnected, the cursor information was not cleared properly. If another connection by the same name was established, any attempt to reopen a cursor that had been declared during the previous connection would fail.
Generic	67079	**Syntax Error** If there was a "\n" between "end-exec" and an ensuing ".", the "." was rescanned as a token, giving a syntax error.
Generic	68321	**-G Option Error** The precompiler failed when invoked with the **-G** option on source code in which an OPEN CURSOR statement preceded a DECLARE CURSOR statement
Generic	68851	**Incorrect Usage Message** The Embedded SQL precompiler printed an incorrect usage message in response to command line errors. The usage shown omitted some command line options and included extraneous options.
OpenVMS	66213	**Precompile Failure Not Reported** On VMS, the Embedded SQL precompiler sometimes reported success even when it did not succeed. Errors that were not reported included missing input files and invalid target files.
SunOS 4.x (BSD)	65986	**Subscripted Array Variable Error** Embedded SQL generated an incorrect language or RPC when array elements were used as input parameters. Specifically, this occurred when a user passed multiple elements of the same array as input parameters to the ESQL statement.

Table 7:   Embedded SQL/C

Platform	Sybase Bug ID	Description of Problem
Generic	62488	**cpre** **cpre** needed an option to specify the maximum string length which generated code could contain (Microsoft C compiler takes a maximum of 2048), and generate *strcpy* and *strcat* into a temporary variable if a literal string was longer than 2048.
Generic	63144	**Memory Allocation Exceeded** In a threaded environment, ESQL/C runtime wrote one byte past the end of allocated memory in **_sqlmemcpy** when called from **_sqlinitctx**.
Generic	63586	**"extern typedefname varname" Failure** "extern typedefname varname" failed at precompile time when within a DECLARE SECTION.
Generic	66942	**Precompile Failure** With Embedded SQL/C syntax checking enabled, execute cursors caused **cpre** to return SQL Server error messages.

Table 8:   ESQL/COBOL

Platform	Sybase Bug ID	Description of Problem
Generic	64484	**Compiling Error with cdgocqot** If the last character in a string given to **cdgocqot** was a new line, the new line would not be stripped out of the string. This caused COBOL to interpret the literal as being too long.
Generic	64838	**Precompiler Support of Nested Subprograms** The precompiler could only handle one nested subprogram. A syntax error regarding identification division resulted otherwise.
Generic	67243	**Precompile Failure** The precompiler sometimes failed to correctly handle variables passed to stored procedures. The precompiler would fail to generate a declaration for a variable before using the variable.

Table 9:   Internationalization-Library

Platform	Sybase Bug ID	Description of Problem
Macintosh	60709	**intlb** The *SYBASE_home* directory path could not be found if the user changed the name of the volume.

Table 9: Internationalization-Library (continued)

Platform	Sybase Bug ID	Description of Problem
Microsoft Windows	68860	**cs_ctx_alloc Failure** **cs_ctx_alloc** failed intermittently on Windows due to the mapping of a FILE pointer to an integer.

Table 10: isql

Platform	Sybase Bug ID	Description of Problem
Generic	64072	**isql Keyword Error** **isql** did not recognize the **exit** or **quit** keywords correctly. Whenever the words **exit** or **quit** were typed into the beginning of a line (such as for a column name), **isql** terminated.
Generic	69519	**-h Option Error** The **isql -h** option generated additional chars (000) between the heading and the data of every new page.
IBM OS/2	67881	**Static Function Declaration** IBM OS/2 C Compiler did not accept static function declaration inside a function. This problem is related to changes in ECO 66175.

Table 11: Net-Library

Platform	Sybase Bug ID	Description of Problem
Generic	63963	**Memory Leak in net_connect** There was a memory leak in the **net_connect** call.
Generic	63451	**Hanging Client-Library Calls** Net-Library missed signals which caused asynchronous Client-Library calls to hang indefinitely. Issuing a **kill -IO** *pid* would restart the program.
Generic	64987	**Scheduler Error** Net-Library decremented the queue count when an out-of-band read completed. This resulted in a fatal Open Server scheduler error.
AT&T System 3000	67224	**TLI Calls and Drivers** Client-Library or Server-Library calls failed because of failures in Net-Library TLI driver. Now the TLI driver has been protected from UNIX signals to fix this problem.
IBM OS/2	68890	**FTP Protocol** The FTP protocol stack did not have a driver layer.

Table 11: Net-Library (continued)

Platform	Sybase Bug ID	Description of Problem
IBM OS/2	69378	**Named Pipes Error** On OS/2 with Named Pipes, Server-Library was unable to accept more than ten concurrent client connections.
Macintosh	57793	**Port Numbers** Client-Library could not handle port numbers greater than 16K in the TCP driver.
Microsoft Windows	65802	**Winsock Net-Library** The Winsock Net-Library driver System 10 yielded to Windows during a long **connect**, causing re-entrance problems.
Microsoft Windows, Windows NT	65659	**ct_get_data** The **ct_get_data** function returned inconsistent lengths when executed from a **select** statement versus a stored procedure.
Windows NT	65805	**SPX Net-Library** The SPX Net-Library driver could not resolve the SPX Advertised Server Name of a Microsoft Windows NT SQL Server.
Windows NT	66091	**SPX Net-Library System 10** SPX Net-Library System 10 driver did not support the async mode in Client-Library.
OpenVMS Alpha	64862	**Network File Block Misalignment** The DECnet driver for OpenVMS Alpha did not work with object numbers due to a misalignment in the Network File Block structure.
SunOS 5.x (SVR4)	63726	**ct_cancel (ALL) Error** When using the threaded TLI network drivers, executing a **ct_cancel** (ALL) caused Client-Library to hang.

Table 12: Server-Library

Platform	Sybase Bug ID	Description of Problem
Generic	39577	**SRV_STOP Handler Cleanup** The SRV_STOP event cleaned up all subproc and client threads before calling the user's SRV_STOP handler, not after.
Generic	54361	**srv_sendinfo/srv_senddone Error** Calling **srv_sendinfo** or **srv_senddone** from a non-client thread caused a segment fault rather than an Open Server error.
Generic	59356	**Header Files for C++ Interface** Not all *.h* files had wrappers defined for the C++ interface.

Table 12: Server-Library (continued)

Platform	Sybase Bug ID	Description of Problem
Generic	62793	**Language Handler Error** When a language handler returned without processing a complete passthrough message, Open Server went into an infinite loop trying to read the remainder of the message.
Generic	63263	**Time Stamp Value for *text* and *image* Datatypes** Open Server did not write the timestamp value for *text* or *image* datatypes. This resulted in an invalid data length.
Generic	64710	**svr_thread_props Memory Corruption** **srv_thread_props** corrupted memory when freeing remote passwords.
Generic	65151	**Packet Layer Error** Open Server sent a 512 byte packet without an end of message bit and then a header only packet with the end of message bit. This caused a packet layer error.
Generic	65991	**Incorrect Error Message for order by Clause** Open Server produced the error message, "There is no order by list in the current statement." This was an incorrect error message when a Transact SQL statement containing an **order by** compute clause was executed through an Open Server gateway program.
Generic	66480	**Open Server/4.2 DB-Library Client Compatibility** DB-Library 4.2 clients could not connect to Open Server 10.0.2.
Generic	66641	**srv_xrefdata Error** When transferring compute columns, the **srv_xferdata** routine warned that data could not be NULL, even though the column allowed NULLs.
Generic	67000	**Shutdown Failure** Unable to shut down an Open Server listening on multiple ports. Open Server stopped accepting connections, but the process did not die.
Generic	67379	**Text Column Processing Error** When a cursor with a text column was fetched, **srv_text_info** returned a failure.
Generic	67381	**Cursor Error** When cursor information was requested on a cursor which had not been declared, Open Server did not build the error string properly. Open Server reported the error, "Could not build error string with id..."
Generic	67932	**Segment Faults with srv_thread_props** A segment fault occurred when an Open Server application called **srv_thread_props** from a service thread with property type SRV_T_APPLNAME.
Generic	68514	**Memory Leaks** Deferred event queue stack had memory leaks.

Table 12: Server-Library (continued)

Platform	Sybase Bug ID	Description of Problem
Generic	68515	**srv_thread_props** Both **srv__arg_thread_props** and **srv__act_thread_props** used a table in the global SRV_SERVER structure as a work area without any protection. This caused an occasional start-up crash.
Generic	68813	**Datatype Support for CS_FLTN** Open Server request capability for TDS5.0 did not have the CS_FLTN datatype support turned on.
Generic	69303	**srv_regparam and srv_regexec Corruption** The Server-Library routines **srv_regparam** and **srv_regexec** corrupted numeric parameters in notification procedures, causing precision and scale to be zero.
Generic	69632	**Language Read Function** Open Server release 10.0.2 had a memory leak when processing language requests from pre-5.0 TDS clients.
Generic	69760	**RPC Error** Server-Library passed an error to a client application that executed a RPC through a SQL Server to an Open Server if the RPC contained a NULL parameter.
SunOS 4.x (BSD)	70022	**srv_dbg_stack Error** Server-Library core dumped when the application called **srv_dbg_stack** from a language handler.