

Release Bulletin

SYBASE Open Client/C™ Release 10.0.1 for VAX OpenVMS

1. Product Summary¹

Enclosed is Open Client/C release 10.0.1 which is compatible with the following platform and operating system configurations:

- OpenVMS 5.4

1.1. Compatibility Issues between 10.0.1 and Previous 10.0 Releases

The 10.0.1 release is not fully interoperable with earlier 10.0 releases. A full upgrade to 10.0.1 is strongly recommended:

- Applications should be built with 10.0.1 header files and linked entirely with 10.0.1 libraries.
- Applications built with earlier 10.0 header files and libraries should not be linked with 10.0.1 shared libraries.
- Applications built with 10.0.1 libraries should be used with 10.0.1 SQL Server, and not with any earlier releases of 10.0 SQL Server.
- Applications built using 10.0.1 header files and libraries *can* be used with 4.9.1 SQL Server.
- When upgrading to 10.0.1 SQL Server, applications should be rebuilt with 10.0.1 libraries.

1.2. Compatibility With 4.x Versions of the SQL Toolset

Release 4.x APT-Library and Report-Library applications cannot be linked with 10.0 Open Client libraries. Release 5.0 of the SQL Toolset, however, is compatible with 10.0 Open Client libraries.

1. SYBASE, the SYBASE logo, Data Workbench, DBA Companion, Deft, Gain Momentum, SA Companion, SQL Debug, Transact-SQL, ADA Workbench, Applications from Models, APT-Build, APT-Edit, APT-Execute, APT-Translator, APT Workbench, Build Momentum, Configurator, DB-Library, Embedded SQL, Enterprise Builder, Enterprise Client/Server, Enterprise Meta Server, Enterprise Modeler, Enterprise Momentum, Gain, MAP, Navigation Server, Net-Gateway, Net-Library, Object Momentum, OmniSQL Access Module, OmniSQL Gateway, OmniSQL Server, Open Client, Open Client/Server Interfaces, Open Gateway, Open Server, PC DB-Net, PostDoc, Replication Server, Replication Server Manager, Report Workbench, RW-Library, Secure SQL Server, SQL Monitor, SQL Server, SQR Workbench, Sybase Momentum, System 10, and The Enterprise Client/Server Company are trademarks of Sybase, Inc.

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2. Release Contents

Open Client includes the following libraries:

- DB-Library
- Client-Library
- CS-Library
- BLK-Library

3. Special Installation Instructions

Please see the *Open Client/Server Installation Guide for VAX VMS* for detailed instructions on installing Open Client.

3.1. If You Have a Beta Installation

If you have an installed beta version of the Release 10.0 software, make a backup copy of the beta files, then install the current Release 10.0 files in the same directory as the beta version of the software.

3.2. Mounting the Sybase CD-ROM on an InfoServer

If you mount your Sybase CD-ROM 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 to the device name using LAD:

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

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

4. 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!!

5. Information Specific to DB-Library

This section contains information specific to Open Client DB-Library.

5.1. Release Contents

5.1.1. Backward Binary Compatibility Not Guaranteed

Applications written for prior releases of DB-Library must be recompiled in order to use DB-Library 10.0. Binary backward compatibility is not guaranteed in this release.

5.1.2. New Functionality

Please see the “Summary of Changes” section in Chapter 1 of the *Open Client DB-Library/C Reference Manual* for a description of new features and enhancements included in this release.

5.2. Problems with Sample Programs

5.2.1. Header File

Modify the “USER” and “PASSWORD” definitions in the sample header file SYDBEX.H to the appropriate known values. This allows you to run the samples correctly.

5.2.2. Restrictions on Sample Programs

Example 12 requires a SQL Server of release 4.2 or greater. Examples 3, 9, 10, and 11 require that *pubs2* be installed in the server. For more details, see the *readme* file in the SYBASE_SYSTEM:[SYBASE.SAMPLE.DBLIBRARY] directory.

Sample program *example12.c* requires the *interpubs* database. To install the database, use the *installintpubs* script in the SYBASE_SYSTEM:[SYBASE.SCRIPTS.ISO_1] directory supplied with SQL Server 10.0.

5.2.3. Bulk Copy Sample Program

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

5.2.4. Other Documentation

See the *Open Client/Server Supplement* for instructions about running the sample programs.

5.3. Problem Reports

See the following files in the SYBASE_SYSTEM:[SYBASE.INSTALL.SPR] directory included with your software for complete listings of known problems.

spr_dblib Open Client DB-Library

6. Information Specific to Client-Library

This section contains information specific to Open Client Client-Library.

6.1. Release Contents

6.1.1. New Functionality

Client-Library is a completely new library.

6.2. Required Localization Files

The first two routines called in a Client-Library/C application are typically *cs_ctx_alloc* and *ct_init*. These routines search for localization files, and will fail if the files are not found.

Client-Library/C requires the following files for error messages and localization:

SYBASE_SYSTEM:[SYBASE.LOCALES]LOCALES.DAT

SYBASE_SYSTEM:[SYBASE.CHARSETS.CHARSET]BINARY.SRT

SYBASE_SYSTEM:[SYBASE.CHARSETS.CHARSET]CHARSET.LOC

SYBASE_SYSTEM:[SYBASE.LOCALES.LANGUAGE.CHARSET]COMMON.LOC

SYBASE_SYSTEM: [SYBASE . LOCALES . LANGUAGE . CHARSET] CSLIB . LOC

SYBASE_SYSTEM: [SYBASE . LOCALES . LANGUAGE . CHARSET] CTLIB . LOC

Where *LANGUAGE* and *CHARSET* are the default national language and character set defined for the platform

`cs_ctx_alloc` will fail if it cannot find `LOCALES.DAT`, `BINARY.SRT`, `COMMON.LOC`, `CHARSET.LOC`, or `CSLIB.LOC`. `ct_init` will fail if it cannot find `CTLIB.LOC`.

If a file cannot be found, `cs_ctx_alloc` or `ct_init` will print a message to standard error indicating which file was not found.

6.3. `ct_poll()`

`ct_poll()` should not be called at an interrupt level.

6.4. Asynchronous Programming

If an asynchronous operation is in progress when `ct_exit()` is called, the routine will return `CS_FAIL` and not clean up Client-Library. This is true even when the `CS_FORCE_EXIT` option is used.

To properly clean up Client-Library, you must wait until all asynchronous operations are complete, then execute `ct_exit()`.

Client-Library/C provides non-blocking I/O on the platforms that support the capability. See the **Asynchronous Programming** topics page in the *Open Client Client-Library/C Reference Manual*.

6.5. Registered Procedure Notifications

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

If the `CS_ASYNC_NOTIFS` property is set to `CS_FALSE`, then a Client-Library connection will receive the notifications only if it is actively reading results from the server.

If the `CS_ASYNC_NOTIFS` property is set to `CS_TRUE`, then a Client-Library connection will receive the notifications as soon as the server sends it to the client.

If the Client-Library connection will be used exclusively for receiving notifications from a server, then the `CS_ASYNC_NOTIFS` property should be set to `CS_TRUE`. Otherwise, the client will not receive the notifications from the server.

The `CS_ASYNC_NOTIFS` property can be set with `ct_con_props()`. The default value for the `CS_ASYNC_NOTIFS` property is `CS_FALSE`.

6.6. Compatibility with Open Server 2.x

System 10.0 Net-Library, Client-Library, BLK-Library, and Embedded SQL are not compatible with Open Server 2.x Release. They must be used with Open Server 10.0.

Bulk copy routines cannot be embedded in applications that call 2.0 Open Server routines.

6.7. Sample Program Issues

6.7.1. *i18n.c* Sample Program

Sample program *i18n.c* demonstrates some localization features available in Client-Library. A description of this example is not included in the *Open Client/Server Supplement*. For a description of the sample program, please see the comments included in the program.

6.7.2. *exasync* Sample Program

The sample program *exasync* fails on large queries. The example program uses a memory pool with a default size of 32,000 bytes. This memory pool is not large enough for queries that return potentially long rows.

If you receive the error message “*ex_abind () failed*”, increase the size of the memory pool. To do so, change the definition of the constant `MEM_POOL_SIZE` in the file “*ex_ain.c*”.

Following is an example:

```
/*
** Max memory allocation for result area */
#define MEM_POOL_SIZE(1000 * 32)
```

6.7.3. Example 12 Sample Program

The example 12 sample program does not work with double-byte character sets in French.

6.7.4. Required Logicals

The Client-Library README file leaves out SYBASE_SYSTEM from the list of logicals needed to build examples. See the Installation Guide for instructions on defining SYBASE_SYSTEM.

6.8. Documentation Issues

Contrary to the discussion of Client-Library examples in the *Open Client/Server Supplement*, EX_USERNAME in the examples is currently set to "sa", not "user". EX_PASSWORD is currently set to "", not "server_password". See the section on Client-Library example programs in the Supplement for further information.

6.9. Problem Reports

See the following files in the SYBASE_SYSTEM:[SYBASE.INSTALL.SPR] directory included with your software for complete listings of known problems.

spr_ctlib Open Client Client-Library

7. Information Specific to Stand-Alone Utilities

7.1. bcp and Identity Columns

When using bcp to insert rows into a table with an identity column, the identity value can either be assigned by SQL Server or obtained from the bcp host file.

By default, SQL Server assigns values for bcp's identity column. To have SQL Server use the identity value from the bcp host file, run the bcp program with the "/identity" flag.

When you run `bcp` without the “`/identity`” flag, the `bcp` host file must contain a placeholder for the identity column even though SQL Server ignores this value. The placeholder can be any value that is convertible to a numeric with the precision and scale of the identity column. A value of zero is recommended for the placeholder, since an identity column will never have a value of zero.

When copying data out of a table with an identity column, `bcp` copies out the identity column rather than suppressing it.

7.2. isql

When using the program `isql` to select a language, make sure the selected 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 language “`us_english`”, it is acceptable to change the 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.