



Release Bulletin

Sybase IQ 15.4

IBM AIX

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Sybase, Inc., One Sybase Drive, Dublin, CA 94568.

Contents

Product Summary	1
Product Compatibilities	1
Network Clients and ODBC Kits	1
Installation and Upgrade	3
Problem Solutions from Earlier Versions	5
Sub-Capacity Licensing	5
Database Upgrades	7
Known Issues	9
Restrictions	9
Installation and Configuration	10
SySAM Licensing	12
Sybase IQ Operations	15
Sybase IQ Operations Known Issues from Previous Versions	16
Multiplex Environment	18
Interactive SQL	18
Documentation Changes	21
IQ Plug-in Sybase Central Online Help Documentation Changes	21
Utility Guide Documentation Changes	21
Reference Guide Changes	22
Installation Guide Changes	25
Obtaining Help and Additional Information	27
Technical Support	27
Information for Technical Support	27
Checklist: Information for Technical Support	29
Downloading Sybase EBFs and Maintenance Reports	30
Sybase Product and Component Certifications	30
Creating a MySybase Profile	30
Sybase IQ Newsgroup	31

Contents

Sybase IQ Users' Group	31
Accessibility Features	31

Product Summary

This release bulletin provides late-breaking information about Sybase® IQ. A more recent version may be available on the Web.

For information about compatible platform and operating system configurations and minimum patch levels, see the *Installation and Configuration Guide*.

For information about new features and behavior changes in this version, see the *New Features Summary Sybase IQ*.

For information about accessibility, see *Accessibility Features* in this release bulletin.

Product Compatibilities

Information about the compatibility of Sybase IQ with other products.

These Sybase products are certified with this version of Sybase IQ:

- jConnect™ for JDBC™ 7.0
- Sybase IQ InfoPrimer 15.3
- Sybase Control Center (SCC) 3.2.4

These Sybase products are certified to work as backends in CIS functionality with this version of Sybase IQ :

- SQL Anywhere® 12.0.1
- Adaptive Server® Enterprise 15.5

See *Sybase Product and Component Certifications* for instructions on accessing the latest online certification information.

Network Clients and ODBC Kits

Sybase IQ Network Clients and ODBC kits for development are available on the Sybase download site. A Network Client is available for each platform supported by this version of Sybase IQ. Windows and Linux 32-bit clients are also available.

The Sybase download site is <http://www.sybase.com/downloads>.

Sybase IQ 15.4 does not require an upgrade of the 32-bit ODBC kits, if you are currently using Sybase IQ 15.2 32-bit ODBC kits.

Product Summary

Installation and Upgrade

Last-minute information about installation and upgrading that was omitted from or incorrect in your installation guide, or that needs special emphasis.

For detailed information about installing and upgrading Sybase IQ, see the *Installation and Configuration Guide*.

Before you run a new version of Sybase IQ, see *Restrictions* for the most current requirements. This section includes installation and migration information that is new for this release or needs emphasis.

Sybase strongly recommends that you check the online support Web site for software updates to these components before you install the software. If a software update (ESD or EBF) has been released, it contains bug fixes made after this product shipped. You must download the latest update and install it after installing Sybase IQ. See *Downloading Sybase EBFs and Maintenance Reports*.

Sybase IQ 15.4 Requires a License

Sybase IQ 15.4 uses the Sybase Software Asset Management (SySAM) licensing mechanism that lets system administrators enable and monitor their site's use of Sybase products.

Sybase IQ includes separate SySAM licenses for each product edition and separate licenses for any optional features available for that edition. See *Installation and Configuration Guide > Licensing Your Software*.

Avoid Using Relative Path to Launch Installer [CR #691212]

Sybase IQ installation fails if you use launch the installer using a relative path. During GUI installation, the installer fails to prompt for the license file information and does not install properly.

For example, when launched from the console using a command line:

```
Installer files directory : /system1/users/jones/installldir
$SYBASE dir : /system1/users/jones/IQ154
```

```
cd $SYBASE
../installldir/setup.bin
```

- **Workaround** – Launch the installer from the directory where it is located, or use an absolute path.

Custom Sybase Control Center Install Omits HTTP, HTTPS, and RMI Prompts [CR #688044]

If you perform a custom install and only choose the Sybase Control Center for IQ option, the installer does not display the port configuration panel.

- **Workaround** – If you want to modify the default values, you can manually update the port properties in the SCC service configuration files.

In `$SYBASE/SCC-3_2/services/EmbeddedWebContainer/service-config.xml`, update the http and https properties:

```
<set-property property="http.port" value="8282" />
      <set-property property="https.port" value="8283" />
```

In `$Sybase/SCC-3_2/services/RMI/service-config.xml`, update RMI port:

```
<set-property property="port" value="9999"/>
```

Note: UNIX variables and path names shown. Windows users substitute `%SYBASE%` as the installation location and change forward slash (/) path separators to back slashes.

Sybase Partners with v3 UDFs Must Specify a License Key When Upgrading to v4 [CR #688135]

If you are a Sybase design partner using v3 UDFs, your UDFs will not continue to work after you upgrade your libraries to v4 unless you specify the Sybase-provided license key in the `a_v4_extfn_license_info` structure. You must implement the `extfn_get_license_info` method, and the method must return a valid key. See the *User-Defined Functions* guide for information on upgrading to the v4 API, and adding the `extfn_get_license_info` method.

SySAM Licensing Checkout [CR #628594]

If Sybase IQ was licensed using a per-processor license type in previous releases, the license quantity was determined at startup. In this release, Sybase IQ periodically checks the number of processors it can use and attempts to check-out additional licenses for any increase. Sybase IQ shuts down after 30 days, if additional licenses are not made available within this period. See the *SySAM Users Guide* for details regarding license grace.

ALTER DATABASE UPGRADE PROCEDURE ON Required

To install new system tables, you must run **ALTER DATABASE UPGRADE PROCEDURE ON** on existing databases after installing Sybase IQ 15.4.

For syntax, see *Reference: Statements and Options*.

Using remote server classes for ASE [CR #615420]

Component Integration Services (CIS) connectivity from Sybase IQ to Adaptive Server® Enterprise (ASE) is available using server classes `asejdbc` and `aseodbc`. The `asejdbc` server class uses the Adaptive Server JDBC™ driver and the `aseodbc` server class uses the Adaptive Server ODBC driver. CIS connectivity through `aseodbc` server class is expected to provide better performance than the `asejdbc` class. The Adaptive Server ODBC driver requires a separate installation of SDK 15.5 ESD #8 which can be downloaded from the EBF download site.

Creating Dbspaces on Multiple Files

Due to the IBM implementation of reads for JFS database files, Sybase IQ performance improves if you create dbspaces on each disk, instead of creating one large file. Smaller files allow Sybase IQ to handle disk I/O operations much more efficiently, especially when combined with disk striping and possibly multiple controllers.

Currently Sybase recommends that you create three files per underlying disk drive.

When setting up raw partitions, the system administrator specifies the sector size, which defines the minimum usable chunk of disk (and sets the minimum Sybase IQ block size). When you use raw partitions, the integer you specify as a block size for Sybase IQ must be a multiple of the sector size. The *System Administration Guide: Volume 1* provides details on specifying block size.

Problem Solutions from Earlier Versions

Sybase IQ includes solutions to problems that were solved in post-release updates to earlier versions.

Sybase IQ 15.4 ESD #3 contains solutions to problems fixed up to and including these versions:

- Sybase IQ 15.1 ESD #3 (N off #7 - Sybase IQ 15.1 ESD #3.7)
- Sybase IQ 15.2 ESD #1 (N off #8 - Sybase IQ 15.2 ESD #1.8)
- Sybase IQ 15.2 ESD #2 (N off #3 - Sybase IQ 15.2 ESD #2.3)
- Sybase IQ 15.2 ESD #3
- Sybase IQ 15.3 GA
- Sybase IQ 15.4 ESD #1
- Sybase IQ 15.4 ESD #2

Sub-Capacity Licensing

Sybase offers sub-capacity licensing options for Sybase IQ Enterprise Edition. Sub-capacity licensing refers to licensing a Sybase product on a subset of the CPUs available on a physical machine.

Platform support

Sub-capacity licensing is supported on the following platforms:

Table 1. Sub-Capacity Licensing Vendor Support

Vendor	Product	Platform Support	Virtualization Type
HP	nPar	HP IA 11.31	Physical Partition
	vPar		Virtual Partition
	Integrity Virtual Machines with Resource Manager		Virtual Machine
	Secure Resource Partitions		OS Containers
IBM	LPAR	AIX 6.1	Virtual Partition
	dLPAR		Virtual Partition
SUN	Dynamic System Domains	Solaris 10	Physical Partition
	Solaris Containers/Zones with Solaris Resource Manager		OS Partition
INTEL/AMD	VMWare ESX Server ¹ Guest OS: Windows	VMWare ESX Server 3.5, 4.0, and 4.1 Guest OS: Windows 2008 R2, Windows 7	Virtual Machine
	VMWare ESX Server Guest OS: Linux	VMWare ESX Server 3.5, 4.0 and 4.1 Guest OS: RH 5.5, SuSE 11, Sun Solaris x64	Virtual Machine
	Xen ² , DomainU: Windows	Windows 2008 R2, Windows 7	Virtual Machine
	Xen, DomainU: Linux	RH 5.5, SuSE 11	Virtual Machine
	¹ VMWare excludes VMWare Workstation and VMWare Server ² Xen excludes Sun Solaris x64		

How to enable Sybase sub-capacity licensing

You must have a sub-capacity licensing agreement with Sybase before you can enable sub-capacity licensing. If you choose to use Sybase IQ in a sub-capacity environment, see the *SySAM Quick Start Guide* for instructions for generating your license key.

Note: Keep your license server up-to-date.

Although the installation media includes a copy of the most recent SySAM license server, Sybase recommends that you periodically check for license server updates on the *SySAM Standalone License Server Install site*.

Database Upgrades

Important information about database upgrades.

For detailed information about installing and upgrading Sybase IQ, see the *Installation and Configuration Guide*.

*Drop Global Temporary Tables Before Running **iqunload** [CR #717855]*

Use **DROP TABLE** statements to drop all global temporary tables before you run the **iqunload** utility. You can recreate global temporary tables after migration.

***iqunload** migrates 12.7 FPIDX databases that use the asejebc remote data access class [CR #682589]*

Although the `asejdbc server class` is deprecated, the **iqunload** tool migrates remote server definitions based on the `asejdbc` driver from Sybase IQ 12.7 databases to Sybase IQ 15.4. Set the **cis_option** to use the remote server at runtime.

ALTER DATABASE UPGRADE statement fails with the error "Not allowed while 'DBA' is using the database" [CR #675890]

Database upgrade procedures in the *Installation and Configuration Guide* instruct you to use several startup flags to start or restart a server. If Sybase Control Center is running, or another process that automatically connects to IQ, you must increase the number of connections using the `-gm` flag or the upgrade fails.

In an environment where many processes automatically connect to IQ, consider temporarily starting IQ on a different port using the `-x` flag. This option prevents all existing processes from connecting to IQ since the port will be unknown to them. You can also use this method for any maintenance task that requires IQ connectivity to be limited.

For example, the IQ upgrade procedure follows this sequence for a simplex server:

1. Shut down the server, then restart with these startup flags:
`-gm 1 -iqro 1`
2. Run `ALTER DATABASE UPGRADE`.
 IQ returns a `Not allowed while 'DBA' is using the database` error.

Similarly, the IQ multiplex upgrade procedure follows this sequence:

1. Shut down the multiplex, then restart the coordinator with these startup flags:
`-iqmpx_sn 1 -gm 1 -iqro 1`
2. Run `ALTER DATABASE UPGRADE`.

Installation and Upgrade

IQ returns a Not allowed while 'DBA' is using the database error.

- **Workaround 1** – The `-gm` switch controls the number of connections when you start the server.
 1. Start the server with `-gm 2` (which allows two connections), or drop the existing connection which is used by SCC when the server starts.
 2. Verify the number of connections using the `sp_iqconnection` command.
 3. If necessary, drop any connections used by SCC (or other processes) using the **DROP CONNECTION** `<id_number>` command.
- **Workaround 2** – Temporarily start IQ on a different port using the `-x` switch: The `-x` switch controls the port that IQ uses when you start the server.
 - On a simplex server, use the `-x` switch to specify a new port number: `start_iq @yourserver.cfg yourdb.db -x 'tcpip{port=<new_port>}'`
 - On a multiplex server, use both the `-x` switch and the `iqmpx` override switch to specify a new port number: `start_iq @yourserver.cfg yourdb.db -iqmpx_ov 1 -x 'tcpip{port=<new_port>}'`

Sybase Central Plug-in Compatibility [CR #667451]

Due to security fixes in IQ 15.3, the Sybase IQ 15.4 plug-in for Sybase Central™ and Sybase Central Agents are not compatible with versions of Sybase IQ earlier than 15.2 ESD #3. You can use the 15.4 plug-in only with Sybase IQ servers that are 15.2 ESD #3 or later, including 15.4; you cannot use the 15.4 plug-in to connect to 12.x servers or servers earlier than 15.2 ESD #3. See *New Features Summary*.

Default Password Value Change

The default password is `sql` in lowercase.

Known Issues

Descriptions of known issues, workarounds, and restrictions.

Find issues by Change Request (CR) number.

Note: 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.

Restrictions

Consider information about restrictions to avoid unexpected results from your system.

This information applies to servers and databases of this version of Sybase IQ that have been upgraded from any earlier version of Sybase IQ, unless specified otherwise.

Sybase Central Plug-in Compatibility [CR #667451]

Due to security fixes in IQ 15.3, the Sybase IQ 15.4 plug-in for Sybase Central™ and Sybase Central Agents are not compatible with versions of Sybase IQ earlier than 15.2 ESD #3. You can use the 15.4 plug-in only with Sybase IQ servers that are 15.2 ESD #3 or later, including 15.4; you cannot use the 15.4 plug-in to connect to 12.x servers or servers earlier than 15.2 ESD #3. See *New Features Summary*.

Database Name Length Restriction [CR #365281]

The **dbbackup** utility truncates the database name to 70 characters and creates a target file with a truncated name. Sybase IQ uses **dbbackup** when synchronizing secondary servers. Due to **dbbackup** restrictions, database names must be less than 70 characters long.

Dbspace Management and File Placement

When you allocate file system files for dbspaces (System, IQ Main, or IQ Temporary), do not place the files on a file system that is shared over a local area network. Doing so can lead to poor I/O performance and other problems, including overloading the local area network. Do not place IQ dbspace files on network drives or Network File System (NFS) file systems.

To avoid conflicts, Sybase recommends that dbspace management be performed by a single database administrator on a single connection.

Dbspace Naming in RESTORE Command [CR #561366]

If the dbspace name contains a file extension such as `.iq`, `.iqtmp`, or `.iqloc`, you must enclose the dbspace name in double quotation marks when specifying the name in a **RESTORE** command **RENAME** clause. For example:

Known Issues

```
RENAME local1 TO '/work/local1_res.iqloc.iqloc'  
DBSPACENAME "local1_res.iqloc"
```

or

```
RENAME "test_prod2.iq" TO '/test/test_prod7.iq'
```

Unexpected Query Results

In a few unusual circumstances, differences in semantics between SQL Anywhere and Sybase IQ may produce unexpected query results. These circumstances are:

- A query is issued from inside a user-defined function
- A **SELECT** statement has no **FROM** clause
- A **FROM** clause contains some tables that were created **IN SYSTEM** and others that were not created **IN SYSTEM**

In these circumstances, subtle differences between the semantics of SQL Anywhere and Sybase IQ may be exposed. These differences include:

- Sybase IQ treats the CHAR and VARCHAR data types as distinct and different; SQL Anywhere treats CHAR data as if it were VARCHAR.
- When the **RAND** function is passed an argument, the behavior is deterministic in Sybase IQ and nondeterministic in SQL Anywhere.

Known Issues for Installation and Configuration

Descriptions of known issues and workarounds for Sybase IQ installation.

Table 2. Installer issues

CR#	Description
691250	<ul style="list-style-type: none">• Wrong link to IBM XL C/C++ Runtime Environment for AIX, V10.1 – The Installing the IBM XL C/C++ Redistributable Libraries topic in the <i>Installation and Configuration Guide</i> includes an incorrect link to <i>IBM XL C/C++ Runtime Environment for AIX, V10.1</i>. The correct link is https://www-304.ibm.com/support/docview.wss?uid=swg24019829

CR#	Description
665300	<ul style="list-style-type: none"> • Installer stops responding on some UNIX-like platforms – On some UNIX-like operating systems, a network resource may cause the installer to stop responding and return the error "syntax error near unexpected token 'fi'." The df command also stops responding in this situation. • Workaround – <ol style="list-style-type: none"> 1. Identify the network file system (NFS) mounts that may have problems: <pre>strace -e statfs, statfs64 df</pre> 2. Use the umount command to unmount an identified NFS mount: <pre>umount -l <path></pre> 3. Repeat the above steps until there are no more NFS mounts that have stopped responding. <hr/> <p>Note: The umount command requires root permission. If umount unmounts the NFS, you may have to restart your machine.</p>
655963	<ul style="list-style-type: none"> • IQ installer returns error "No filesystem could mount root" on Red Hat – The IQ installer may return this error on Red Hat when installing on IBM P6 and P7 machines: <pre>rhel6 install error: No filesystem could mount root, tried: iso9660</pre> • Workaround – Follow the steps on http://www.ibm.com/developer-works/forums/thread.jspa?threadID=357314 and re-install.
669678	<ul style="list-style-type: none"> • Uninstaller stops responding – Clicking the Previous button after the installer indicates that <pre>All items were successfully deleted</pre> causes the uninstaller to hang. • Workaround – Do not try to return to a previous screen after the installer deletes your files. Click Done to complete the uninstall process.
641873, 652690, 652696, 652866, 643106	<ul style="list-style-type: none"> • Do not install Sybase IQ 15.4 into the same directory as older Sybase products – Installing Sybase IQ 15.4 into the same directory with older Sybase Products may render some or all of these products unusable. Only Adaptive Server Enterprise 15.5 and Sybase IQ 15.4 can share the same \$SYBASE directory. • Workaround – Install Sybase IQ 15.4 into a different directory than the one you use for older products.

Known Issues for SySAM Licensing

Descriptions of known issues and workarounds for SySAM licensing. These issues affect users who generate the license file from either SPDC or SMP.

Table 3. SySAM licensing issues

CR#	Description
683936	<ul style="list-style-type: none"> • Receiving e-mail notifications about SySAM licensing – When you configure Sybase IQ to send an e-mail notifications about SySAM licensing failures, the e-mail messages do not contain HELO tokens, which some SMTP mail servers require to process messages correctly. • Workaround – If your SMTP server requires such a HELO token, append the <code>email.helo.fqdn</code> property to the SySAM property file. The property value should be the fully qualified domain name, such as: <code>email.helo.fqdn=sybase.com</code> The SySAM properties file is located in the <code>\$\$SYBASE/IQ-15_4/syam</code> directory and is named <code>servername.properties</code>, where <code>servername</code> is the name of your server.
670991	<ul style="list-style-type: none"> • An incorrect CPU count may occur on AIX servers – Client connections to an AIX server may occasionally fail when the server performs periodic CPU license checks. This can sometimes result in an incorrect CPU count. • Workaround – If you find that CPU counts are no longer correct, use this command to reset the <code>SYBASE_SAM_CPUINFO</code> environment variable that controls the license counting mechanism: <code>Set SYBASE_SAM_CPUINFO=ORIGINAL</code>
656959	<ul style="list-style-type: none"> • CPU count incorrect on IBM AIX with POWER7 processors – Sybase IQ may incorrectly count more cores than are actually present on AIX POWER7 systems when Simultaneous MultiThreading (SMT) is greater than 2 per core. This may result in the Sybase IQ server not starting due to licensing problems or the server may start in grace mode. • Workaround – Turn off hyperthreading, configure SMT equal to 2 per core, or contact Sybase Technical Support.

CR#	Description
669653	<ul style="list-style-type: none"><li data-bbox="475 227 1184 458">• License server reports wrong number of available licenses – When a product requires multiple licenses and the license server has insufficient licenses available to satisfy its needs, the failure message reported by the product does not show the correct amount that were available (that the product could obtain). For example, there are 5 license in a SySAM server, 3 are in use by other host, so only 2 licenses can be obtained. But SySAM will report wrong message "Insufficient IQ_CORE licenses. Sybase IQ requires 4 IQ_CORE licenses but only 5 could be obtained."<li data-bbox="475 479 1184 531">• Workaround – There is no current workaround. Sybase is aware of the problem and will address the issue in a future release.

CR#	Description
628596, 628403	<ul style="list-style-type: none"> <p>Licensing behavior in a virtual environment – Sybase IQ cannot be installed or fails to start in a virtual environment and reports an error similar to the following:</p> <pre>Cannot determine the total number of processor cores on the machine from within this virtual system. The IQ_CORE ("DH")_license type is restricted for use on a machine with a maximum of 4 processor cores regardless of whether the virtual system is limited to use fewer processor cores. You need to run 'sysamcap' on the physical machine (or virtual-machine/partition control domain) and set the reported environment vari- able prior to running Installer.</pre> <p>This error is raised in the following circumstances:</p> <ol style="list-style-type: none"> 1. Sybase IQ is running on a virtual system which doesn't have access to the processor counts of the physical machine (this applies to all virtual environments except AIX LPAR and HP-UX vPar). and 2. Sybase IQ is using a license type that is restricted for use to a machine with no more than a specific number of processors (for example, Sybase IQ Single Application Server Edition cannot be used on a machine with more than 16 processor cores, ASE Small Business Edition cannot be used on a machine with more than 2 processor chips). <p>Workaround – Run the sysamcap DEFAULT command on the physical machine or control domain for the virtualization technology (for example, VMware ESX console, or XEN dom0), then set the environment variable reported prior to running the product or product installer. The process is described in the SySAM Sub-capacity Licensing section of the <i>SySAM Users Guide</i>.</p>
628594	<ul style="list-style-type: none"> <p>SySAM Licensing Checkout – If Sybase IQ was licensed using a per-processor license type in previous releases, the license quantity was determined at startup. In this release, Sybase IQ periodically checks for the number of processors it can use and attempts to check out additional licenses for any increase. Sybase IQ shuts down after 30 days, if additional licenses are not made available within this period. See the <i>SySAM Users Guide</i> for details regarding license grace.</p>

Known Issues for Sybase IQ Operations

Descriptions of known issues and workarounds for Sybase IQ operations.

Table 4. Open Client issues

CR#	Description
662422	<ul style="list-style-type: none"> Remote query performance degrades with DATETIME column – Sybase IQ 15.4 and the default Open Client/Server included with Sybase IQ 15.4 support the TDS BIGDATETIME data type for remote queries. <p>When a Sybase IQ server executes a remote query using Open Client and fetches a DATETIME column on an IQ/SA remote server, the return data type is BIGDATETIME, instead of DATETIME. This may degrade performance.</p> <p>This performance degradation may not occur, when the remote server is an ASE server.</p> <p>To prevent the return of BIGDATETIME values, apply this work-around.</p> Workaround – Add these lines to the Open Client and Open Server configuration file \$SYBASE/\$SYBASE_OCS/config/ocs.cfg to prevent the return of BIGDATETIME values: <pre>[Sybase IQ] CS_CAP_RESPONSE = CS_DATA_NOBIGDATETIME</pre> <p>See also <i>Open Server 15.0, Open Client 15.0, and SDK 15.0 > Open Client Client-Library/C Reference Manual > Client-Library Topics > Using the runtime configuration file.</i></p>

Table 5. Server startup issues

CR#	Description
663054	<ul style="list-style-type: none"> Database recovery fails if server started with -iqro 1 flag – A 15.2 database that is archived cannot be recovered if you specify the read-only flag -iqro 1 on the startup command in Sybase IQ 15.4.

Sybase IQ Operations Known Issues from Previous Versions

Descriptions of known issues and workarounds for Sybase IQ operations from previous versions.

Red Hat 6 Requires Compatibility Libraries [CR #686818]

Installation of Sybase IQ 15.3 on Red Hat 6.0 fails with an `InvocationTargetException` error unless you install the required 32-bit compatibility libraries:

- `libXext-devel.i686`
- `libXtst-devel.i686`

PHP Bound Parameters on Big Endian Platforms [CR #627872]

In Sybase IQ 15.2, PHP: Hypertext Preprocessor (PHP) drivers on big endian platforms require bound parameters to be initialized before the call to `sasql_stmt_bind_param` for `INT` and `BIGINT` data types.

This example shows the values properly initialized before the call to `sasql_stmt_bind_param`:

```
$stmt = sasql_prepare($conn, "insert into
testdefault(c1, c2, c3, c5) values(?,?,?,?)");
#Binding parameters with statement prepared
$c1=22; $c2=33; $c3="col3data"; $c5="col5data";
sasql_stmt_bind_param
($stmt,"iiss", $c1, $c2, $c3, $c5);
#executing statement
sasql_stmt_execute($stmt);
```

sp_iqstatus Returns Error on Chinese and Japanese Locale Installations [CR #622928]

On Sybase IQ servers that are set up for Chinese and Japanese locales, running `sp_iqstatus` returns an error similar to:

```
Could not execute statement.
Syntax error near '2010' on line 1
SQLCODE=-131, ODBC 3 State="42000"
Line 1, column 1
```

Workaround:

1. Run these commands:

For Chinese locales:

```
% cd $IQDIR15/res
% rm dblgzh_iq11_eucgb.res
% rm dblgzh_iq11_cp936.res
```

For Japanese locales:

```
% cd $IQDIR15/res
% rm dblgja_iql1_eucjis.res
% rm dblgja_iql1_sjis.res
```

2. Restart Sybase IQ.

After this procedure, certain strings in the .iqmsg files and the output of **sp_iqmpxinfo**, **sp_iqstatistics**, and **sp_iqstatus** are in English, instead of Chinese or Japanese.

ASE Connections to Sybase IQ with BIGDATETIME [CR #622007]

When a version 15.5 GA Adaptive Server Enterprise server uses Component Integration Services (CIS) to connect to a Sybase IQ server version that has BIGDATETIME and BIGTIME capability, any chronological data type sent to the Adaptive Server server using CIS results in the error:

```
Msg 7225, Level 16, State 4:
Line 1:
Unknown datatype token 188 'BIGDATETIME NULL'
encountered.
Exited passthru mode from server 'QA_IQ15_ASECIS'.
```

Sybase IQ sends the data as BIGDATETIME and relies on Adaptive Server to convert appropriately. The BIGDATETIME data type was implemented in CIS in Adaptive Server Enterprise version 15.5 ESD #1, so this error occurs with Adaptive Server Enterprise 15.5 before any ESDs have been applied.

Workaround:

SET TEMPORARY OPTION RETURN_DATE_TIME_AS_STRING='ON' in Sybase IQ for each session. The Sybase IQ server sends all chronological data as strings and Adaptive Server completes the conversion. This workaround is for Adaptive Server Enterprise 15.5 GA connecting to Sybase IQ in passthrough mode.

You can also use this workaround in the definition of a remote stored procedure, but it is not a solution for proxy tables created on Adaptive Server returning chronological data types from Sybase IQ.

RSA Certificate Creation Fails [CR #557702]

RSA certificate creation fails with the error `createcert` command not found because the **createcert** utility is missing. The utility is currently available only on the AIX64, LinuxAMD64, Sun64, and Win32 platforms. Please contact Sybase Technical Support, if you need this utility.

Known Issues for Multiplex Environment

Descriptions of known issues and workarounds for the multiplex environment.

Table 6. Multiplex issues

CR#	Description
611990	<ul style="list-style-type: none"> • Emergency shutdown on secondary servers after CREATE TEXT INDEX – A secondary server goes into emergency shutdown, when: <ul style="list-style-type: none"> • It is started with the -sf external_library_full_text flag, which disables loading of external libraries, and • The user issues a CREATE TEXT INDEX statement on the coordinator with a text configuration that uses external libraries. <p>All other servers replay the DDL successfully.</p> • Workaround – Start secondary nodes in the multiplex without the -sf external_library_full_text flag.
557714	<ul style="list-style-type: none"> • Emergency shutdown on secondary servers after creating a proxy table – A timing problem may cause an emergency server shutdown when a user accesses a new proxy table on a secondary server. • Workaround – Either reconnect or wait for some time and start another transaction, before trying to use a newly-created proxy table.

Known Issues for Interactive SQL

Descriptions of known issues for Interactive SQL.

Sybase recommends that you use **dbisql**, rather than **dbisqlc** or **iqisql**, unless instructed to do otherwise, for specific tasks. **dbisqlc** is supported, but does not contain all the features of **dbisql**. **dbisqlc** will be deprecated in a future release.

Table 7. Interactive SQL issues

CR#	Description
560926, 644210	<ul style="list-style-type: none"> • There is no online help for dbisql and dbisqlc. – Online help is not available for the Interactive SQL (dbisql) utility or the deprecated Interactive SQL Classic (dbisqlc) utility.

CR#	Description
n/a	<ul style="list-style-type: none"> • Import option unsupported – Do not use the Import option on the dbisql Data menu (or Command Options Input Format in dbisqlc). This option is not supported for use with IQ databases. Use the LOAD TABLE statement or the INSERT statement to load data into IQ tables.
n/a	<ul style="list-style-type: none"> • Creating output files in quiet mode – If you run dbisql (Interactive SQL) with the -q (quiet mode) option, and the data extraction commands (primarily setting the option TEMP_EXTRACT_NAME1 to an output file) are in a command file, you must first set and make permanent the dbisql option “Show multiple result sets.” If you do not set this option, the output file is not created.
n/a	<ul style="list-style-type: none"> • Show multiple result sets – To set the option “Show multiple result sets,” click Tools Options in the dbisql window, choose “Sybase IQ,” and select the “Results” tab. Under “Results Processing” and “For statements that return multiple result sets,” select “Show all result sets.”
n/a	<ul style="list-style-type: none"> • Query plan on the Plan tab – The query plan in the dbisql Plan tab is a SQL Anywhere style query plan. For a Sybase IQ query plan, refer to the IQ .iqmsg file.

Known Issues

CR#	Description
n/a	<ul style="list-style-type: none">• Unable to initialize screen routines – If you set the terminal type on UNIX and Linux systems to “dumb” or “unknown” and then start dbisqlc, Sybase IQ returns an error. For example:<pre data-bbox="709 352 971 404">% setenv TERM dumb % dbisqlc</pre>error at line 1 Unable to initialize screen routines• Workaround – To avoid problems, run dbisql (Interactive SQL) instead, or use an xterm window to run dbisqlc on UNIX and Linux systems. For example, to start an xterm window with a scroll bar, enter:<pre data-bbox="709 649 870 675">% xterm -sb</pre>

Documentation Changes

Updates, corrections, and clarifications to the documentation released with Sybase IQ.

IQ Plug-in Sybase Central Online Help Documentation Changes

This section lists updates, corrections, and clarifications to released documentation for the Sybase Central online help for Sybase IQ.

Table 8. Sybase Central Online Help updates

CR#	Description
701326	Sybase IQ does not support elliptic-curve cryptography (ECC) encryption. References to ECC and elliptic curves in the topics Connect dialog: Network tab and Publication property sheet: Connection tab in the Sybase Central online help for Sybase IQ 15.4 are incorrect.

Utility Guide Documentation Changes

Read about updates to Utilities.

Issue	Section	Description
CR #720385	start_iq Database Server Startup Utility > start_iq Server Options > -m iqsrv15 database server option	This note is incorrect and should be removed: Warning! Do not use the -m option with databases that are being replicated or synchronized.
CR #720385	dbbackup Database Administration Utility	The description of the dbbackup utility is missing this text: To truncate the transaction log on a simplex or multiplex server, use the -m option in your configuration file or start_iq command. The server may be running or stopped.

Reference Guide Changes

Changes to the reference guides.

Reference: Building Blocks, Tables, and Procedures

Issue	Section	Description
CR #693311	Differences from Other SQL Dialects > Altering Tables	<p>This statement is incorrect and should be removed:</p> <ul style="list-style-type: none"> You can use <code>MODIFY</code> to change the maximum length of a character column, as well as converting from one data type to another. <p>These alteration statements are incorrect and should be removed:</p> <ul style="list-style-type: none"> In addition to changes for entity and referential integrity, the following types of alterations are allowed: <pre>ADD column data-type MODIFY column data-type</pre>
CR #721423	Physical Limitations > DbSPACE size	<p>The DBSPACE size entry should state:</p> <p>Maximum 2000 dbfiles per dbSPACE.</p> <p>Creating dbSPACES on NAS (Network Attached Storage) devices is not recommended.</p>

Issue	Section	Description
CR #700883	System Procedures > System Stored Procedures > sp_iqspaceused Procedure	<p>The example procedure dbo.myspace should be:</p> <pre> create or replace procedure dbo.myspace() begin declare mt unsigned bigint; declare mu unsigned bigint; declare tt unsigned bigint; declare tu unsigned bigint; declare gt unsigned bigint; declare gu unsigned bigint; declare lt unsigned bigint; declare lu unsigned bigint; declare tt_t unsigned bigint; declare mt_t unsigned bigint; declare gt_t unsigned bigint; declare lt_t unsigned bigint; call sp_iqspaceused(mt,mu,tt,tu,gt,gu,lt,lu); if (tt = 0) then set tt_t = 0; else set tt_t = tu*100/tt; end if; if (mt = 0) then set mt_t = 0; else set mt_t = mu*100/mt; end if; if (gt = 0) then set gt_t = 0; else set gt_t = gu*100/gt; end if; if (lt = 0) then set lt_t = 0; else set lt_t = lu*100/lt; end if; select cast(mt/1024 as unsigned bigint) as mainMB, cast(mu/1024 as unsigned bigint) as mainusedMB, mt_t as mainPerCent, cast(tt/1024 as unsigned bigint) as tempMB, cast(tu/1024 as unsigned bigint) as tempusedMB, tt_t as tempPerCent, cast(gt/1024 as unsigned bigint) as shTempTotalKB, cast(gu/1024 as unsigned bigint) as shTempTotalKBUsed, gt_t as globalshTempPerCent, cast(lt/1024 as unsigned bigint) as shTempLocalMB, </pre>

Issue	Section	Description
		<pre>cast(lu/1024 as unsigned bigint) as shTempLocalKBUsed, lt_t as localshTempPerCent; end</pre>
<p>CR #710657</p>	<p>SQL Functions > Alphabetical List of Functions > ROUND Function [Numeric]</p>	<p>The ROUND function documentation is missing information on the ROUND_TO_EVEN database option:</p> <p>When ROUND_TO_EVEN database option is set ON, the ROUND function rounds data from a Sybase IQ table half to the nearest even number to the integer-expression, matching the behavior of SQL Anywhere table data. When the option is set to OFF, the ROUND function rounds Sybase IQ data half away from zero.</p> <p>In the following examples, the ROUND_TO_EVEN settings affect the value returned.</p> <ul style="list-style-type: none"> • <code>ROUND (convert (double, 123.45001), 1)</code> Setting ROUND_TO_EVEN ON or OFF would return 123.5 because the value 0.05001 is more than half of 0.1. • <code>ROUND (convert (double, 123.450000), 1)</code> Setting ROUND_TO_EVEN ON returns 123.4 and setting ROUND_TO_EVEN OFF returns 123.5 because the value 0.0500 is half of 0.1.
<p>CR #671727</p>	<p>File Locations and Installation Settings > Environment Variables</p>	<p>The IQ_USE_DIRECTIO Environment Variable is missing from the documentation:</p> <p>The IQ_USE_DIRECTIO environment variable defaults to the setting 0. To enable direct I/O on a supported platform, set IQ_USE_DIRECTIO to 1. Multiplex databases do not support direct I/O.</p> <pre>IQ_USE_DIRECTIO = value</pre> <p>Optional on Sun Solaris UFS, Linux, Linux IBM, AIX, and Windows file systems only. In Linux, direct I/O is supported in kernel versions 2.6.x.</p> <p>Not used on HP-UX and HP-UXi platforms.</p> <p>IQ_USE_DIRECTIO has no effect on Sun Solaris and Windows.</p>

Issue	Section	Description
CR #736337	System Tables and Views > System Views > Alphabetical List of System Views > SYSTAB system view	The server_type row is missing this value: <ul style="list-style-type: none"> 2 – IQ table

Reference: Statements and Options

Issue	Section	Description
CR #740981	ALTER Table Statement, CREATE Table Statement	Added the following constraint to the MOVE TO description in the Usage section: A BIT data type column cannot be explicitly placed in a dbspace. The following is not supported for BIT data types: <code>ALTER TABLE t2 alter c1_bit MOVE TO iq_main;</code>

Installation Guide Changes

Changes to the Installation and Configuration Guide.

Issue	Section	Description
CR #738018	Server Installations	New "Uninstalling Sybase IQ" topic includes instructions for GUI and silent uninstalls. This topic replaces separate instructions for uninstalling server and client software.
CR #743190	Configuration	Removed this paragraph from the "Running the Client and Server On the Same System" topic: "Local connections through shared memory are not supported for Solaris x64 systems." Sybase IQ supports shared memory links on all platforms.

Obtaining Help and Additional Information

Use the Sybase Getting Started CD, Product Documentation site, and online help to learn more about this product release.

- The Getting Started CD (or download) – contains release bulletins and installation guides in PDF format, and may contain other documents or updated information.
- Product Documentation at <http://sybooks.sybase.com/> – is an online version of Sybase documentation that you can access using a standard Web browser. You can browse documents online, or download them as PDFs. In addition to product documentation, the Web site also has links to EBFs/Maintenance, Technical Documents, Case Management, Solved Cases, Community Forums/Newsgroups, and other resources.
- 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 Sybase 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 Sybase Technical Support or the Sybase subsidiary in your area.

Information for Technical Support

Technical Support needs information about your environment to resolve your problem.

Before contacting Technical Support, run the **getiqinfo** script to automatically collect as much information as possible. You may also need to collect some information manually .

In this list, * indicates items collected by **getiqinfo**:

- Sybase IQ version (for example, 15.4 GA or ESD level)
- Type of hardware, amount of memory, number of CPUs*
- Operating system and version (for example, Microsoft Windows 2008 Service Pack 1)*
- Operating system patch level
- Front-end tool used (for example, Business Objects Crystal Reports)
- Connectivity protocol used (for example, ODBC, JDBC, Tabular Data Stream™ (TDS))

Obtaining Help and Additional Information

- Open Client version
- Configuration type (single user or multiuser)
- (Important) Message log file* – by default, named `dbname.iqmsg` and located in the directory where you started the database server
- Stack trace file for the date and time the problem occurred (if applicable), by default named `stktrc-YYYYMMDD-HHMMSS_#.iq` and located in the directory where you started the database server*
- Command or query that produced the error
- Query plan* (recorded in `.iqmsg` file)

The query plan is collected automatically by **getiqinfo**. If you manually collect information, enter these commands, then re-run the command that produced the error:

```
SET TEMPORARY OPTION Query_Plan = 'ON'  
SET TEMPORARY OPTION Query_Detail = 'ON'  
SET TEMPORARY OPTION Query_Plan_As_Html = 'ON'  
SET TEMPORARY OPTION Query_Plan_As_Html_Directory =  
'ON'
```

The plan is in the message log file.

If you have performance problems, set this database option:

```
SET TEMPORARY OPTION Query_Plan_After_Run = 'ON'
```

This enables Technical Support to see which steps in the query processing used the time.

- Server logs
 - For UNIX and Linux: `IQ-15_4/logfiles/<servername>.nnnn.stderr` and `IQ-15_4/logfiles/<servername>.nnnn.srvlog*`
 - On Windows platforms: `%ALLUSERSPROFILE%SybaseIQ\logfiles\<servername>.nnnn.srvlog*`
For example, on Windows 2003, the server log files are located in `C:\Documents and Settings\All Users\SybaseIQ\logfiles`. On Windows 2008, the server log files are located in `C:\ProgramData\SybaseIQ\logfiles`.
- Startup and connection option settings, from the configuration file (by default, `dbname.cfg`)*
- Database option settings and output from **sa_conn_properties*** (if the server is still running)
- Schema and indexes for the database
- Output from **sp_iqstatus** and **sp_iqcheckdb**
- On multiplex databases, execute **getiqinfo** on each node (coordinator and secondary nodes)
- Screen snapshot of the problem, if possible

A checklist for recording this information for Technical Support is provided in this release bulletin.

See *System Administration Guide: Volume 1 > Troubleshooting Hints > Reporting Problems to Technical Support > Collecting Diagnostic Information Using getiqinfo*.

Checklist: Information for Technical Support

You can run the **getiqinfo** script to collect much of this information.

Information requested	Value
Sybase IQ version (for example 15.4 GA or ESD number)	
sp_iqlmconfig output	
Type of hardware	
Amount of memory	
Number of CPUs	
Operating system name and version (for example, Microsoft Windows 2008 Service Pack 1)	
Operating system patch level	
Front end tool used (for example, Business Objects Crystal Reports)	
Connectivity protocol used (for example, ODBC, JDBC, TDS)	
Open Client version	
Configuration type (single node or multiplex)	
Message log file (dbname.iqmsg)	
Server log files (server.nnnn.srvlog and server.nnnn.stderr)	
Stack trace file (stktrc-YYYYMMDD-HHNNSS_#.iq)	
Command or query that produced the error	
Start-up option settings	
Connect option settings	
Database option settings	
Schema and indexes for the database	
sp_iqstatus output	
Query plan: set options (Query_Plan, Query_Detail, Query_Plan_After_Run, Query_Plan_As_Html, Query_Plan_As_Html_Directory, Query_Timing), rerun command or query	
Screen snapshot of the problem, if possible	

Downloading Sybase EBFs and Maintenance Reports

Get EBFs and maintenance reports from the Sybase Web site or the SAP® Service Marketplace (SMP). The location you use depends on how you purchased the product.

- If you purchased the product directly from Sybase or from an authorized reseller:

- a) Point your Web browser to <http://www.sybase.com/support>.
- b) Select **Support > EBFs/Maintenance**.
- 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 Sybase product under an SAP contract:
 - a) Point your browser 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**.

Sybase 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>

Creating a MySybase Profile

MySybase is a free service that allows you to create a personalized view of Sybase Web pages.

1. Go to <http://www.sybase.com/mysybase>.
2. Click **Register Now**.

Sybase IQ Newsgroup

The Sybase IQ newsgroup sybase.public.iq allows users to exchange information over the Internet.

For information on subscribing to Sybase newsgroups, configuring your newsreader or Web browser, and for guidelines on posting, go to <http://www.sybase.com/support/newsgroups>.

Sybase IQ Users' Group

The Sybase IQ Users' Group provides a forum for users to exchange information about Sybase IQ.

You can visit the IQUG homepage at <http://iqug.dssolutions.com/>. To have your name added to the IQ Users' Group list, send an e-mail message to iqug-subscribe@dssolutions.com.

Accessibility Features

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

Documentation for Sybase products 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.

Sybase 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.

Obtaining Help and Additional Information