Release Bulletin Adaptive Server® Enterprise Version 15.0 for Windows

Document ID: DC71335-01-1500-03

Last revised: October 27, 2005

Copyright 1987-2005 by Sybase, Inc. All rights reserved. Sybase, the Sybase logo, ADA Workbench, Adaptable Windowing Environment, Adaptive Component Architecture, Adaptive Server, Adaptive Server Anywhere, Adaptive Server Enterprise, Adaptive Server Enterprise Monitor, Adaptive Server Enterprise Replication, Adaptive Server Everywhere, Adaptive Warehouse, Afaria, Answers Anywhere, Anywhere Studio, Application Manager, AppModeler, APT Workbench, APT-Build, APT-Edit, APT-Execute, APT-Translator, APT-Library, AvantGo Mobile Delivery, AvantGo Mobile Inspection, AvantGo Mobile Marketing Channel, AvantGo Mobile Pharma, AvantGo Mobile Sales, AvantGo Pylon, AvantGo Pylon Application Server, AvantGo Pylon Conduit, AvantGo Pylon PIM Server, AvantGo Pylon Pro, Backup Server, BizTracker, ClearConnect, Client-Library, Client Services, Convoy/DM, Copernicus, Data Pipeline, Data Workbench, DataArchitect, Database Analyzer, DataExpress, DataServer, DataWindow, DataWindow .NET, DB-Library, dbQueue, Developers Workbench, DirectConnect, DirectConnect Anywhere, Distribution Director, e-ADK, E-Anywhere, e-Biz Impact, e-Biz Integrator, E-Whatever, EC Gateway, ECMAP, ECRTP, eFulfillment Accelerator, Embedded SQL, EMS, Enterprise Application Studio, Enterprise Client/Server, Enterprise Connect, Enterprise Data Studio, Enterprise Manager, Enterprise SQL Server Manager, Enterprise Work Architecture, Enterprise Work Designer, Enterprise Work Modeler, eProcurement Accelerator, EWA, Financial Fusion, Financial Fusion Server, Gateway Manager, GlobalFIX, iAnywhere, iAnywhere Solutions, ImpactNow, Industry Warehouse Studio, InfoMaker, Information Anywhere, Information Everywhere, InformationConnect, InternetBuilder, iScript, Jaguar CTS, jConnect for JDBC, M2M Anywhere, Mach Desktop, Mail Anywhere Studio, Mainframe Connect, Maintenance Express, Manage Anywhere Studio, M-Business Channel, M-Business Network, M-Business Server, MDI Access Server, MDI Database Gateway, media.splash, MetaWorks, mFolio, Mirror Activator, MySupport, Net-Gateway, Net-Library, New Era of Networks, ObjectConnect, ObjectCycle, OmniConnect, OmniSQL Access Module, OmniSQL Toolkit, Open Biz, Open Client, Open ClientConnect, Open Client/Server, Open Client/Server Interfaces, Open Gateway, Open Server, Open ServerConnect, Open Solutions, Optima++, PB-Gen, PC APT Execute, PC DB-Net, PC Net Library, PocketBuilder, Pocket PowerBuilder, Power++, power.stop, PowerAMC, PowerBuilder, PowerBuilder Foundation Class Library, PowerDesigner, PowerDimensions, PowerDynamo, PowerScript, PowerSite, PowerSocket, Powersoft, PowerStage, PowerStudio, PowerTips, Powersoft Portfolio, Powersoft Professional, PowerWare Desktop, PowerWare Enterprise, ProcessAnalyst, QAnywhere, Rapport, RemoteWare, RepConnector, Replication Agent, Replication Driver, Replication Server, Replication Server Manager, Replication Toolkit, Report-Execute, Report Workbench, Resource Manager, RFID Anywhere, RW-DisplayLib, RW-Library, S-Designor, SDF, Search Anywhere, Secure SQL Server, Secure SQL Toolset, Security Guardian, SKILS, smart.partners, smart.parts, smart.script, SOA Anywhere, SQL Advantage, SQL Anywhere, SQL Anywhere Studio, SQL Code Checker, SQL Debug, SQL Edit, SQL Edit/TPU, SQL Everywhere, SQL Modeler, SQL Remote, SQL Server, SQL Server Manager, SQL SMART, SQL Toolset, SQL Server/CFT, SQL Server/DBM, SQL Server SNMP SubAgent, SQL Station, SQLJ, STEP, SupportNow, S.W.I.F.T. Message Format Libraries, Sybase Central, Sybase Client/Server Interfaces, Sybase Financial Server, Sybase Gateways, Sybase IQ, Sybase MPP, Sybase SQL Desktop, Sybase SQL Lifecycle, Sybase SQL Workgroup, Sybase User Workbench, SybaseWare, Syber Financial, SyberAssist, SybFlex, SyBooks, System 10, System 11, System XI (logo), SystemTools, Tabular Data Stream, TradeForce, Transact-SQL, Translation Toolkit, UltraLite, UltraLite.NET, UNIBOM, Unilib, Uninull, Unisep, Unistring, URK Runtime Kit for UniCode, VisualWriter, VQL, WarehouseArchitect, Warehouse Control Center, Warehouse Studio, Warehouse WORKS, Watcom, Watcom SQL, Watcom SQL Server, Web Deployment Kit, Web.PB, Web.SQL, WebSights, WebViewer, WorkGroup SQL Server, XA-Library, XA-Server, XcelleNet, and XP Server are trademarks of Sybase, Inc. 06/05

1. Accessing current release bulletin information

A more recent version of this release bulletin may be available on the Web. To check for critical product or document information added after the release of the product CD, use the Sybase Technical Library Product Manuals Web site.

❖ **Accessing release bulletins at the Technical Library Product Manuals Web site**

1 Go to Product Manuals at http://www.sybase.com/support/manuals/.

2 Follow the links to the appropriate Sybase product.

3 Select the Release Bulletins link.

4 Select the Sybase product version from the Release Bulletins list.

5 From the list of individual documents, select the link to the release bulletin for your platform. You can either download the PDF version or browse the document online.

2. Product summary

Enclosed is Sybase® Adaptive Server® Enterprise version 15.0. Server and client components are distributed on separate CDs.

For details on system requirements, including disk space and RAM, see the installation guide for your platform.

2.1 Installation kit

The installation kit includes:

- The server CD – for contents list, see *Installation Guide.*
- The PC-client CD – contains software client components to be installed on Windows 2000, Windows XP Pro, and Windows 2003 computers.
- The Getting Started CD with the:
  - *Installation Guide* for your platform

- *Configuration Guide* for your platform
- *Release Bulletin* for your platform

2.2 Operating system requirements

Adaptive Server version 15.0 has the following minimum operating system requirements:

- Windows XP Pro – patch level SP1
- Windows 2000 – SP4
- Windows 2003 – SP1

3. Special Sybase Software Asset Management (SySAM) instructions

Starting with Adaptive Server version 15.0, the Sybase Software Asset Management System (SySAM) implementation has changed. SySAM configuration is no longer optional and requires changes in the Adaptive Server installation and configuration process. Review the updated SySAM information and plan your SySAM deployment before installing Adaptive Server.

Warning! Adaptive Server works for an initial period of thirty days without proper SySAM configuration. If a valid license for your configuration is not found within this thirty day grace period, Adaptive Server shuts down.

See *What's New in Adaptive Server version 15.0?* for a brief description of SySAM changes. See the Chapter "Managing Sybase licenses for Adapitve Server: a SySAM overview" in the *Configuration Guide* for your platform for details on SySAM configuration and deployment options. See the *Adaptive Server Installation Guide* for your platform for information on pre-installation planning and SySAM installation procedures.

3.1 Monitoring Adaptive Server for SySAM issues

If Adaptive Server cannot obtain a license, then SySAM evaluates whether the license can be issued under a grace period. The grace periods evaluated are described in the SySAM Configuration section of the *Configuration Guide.*

3.1.1 If the SySAM license cannot be acquired

If the license cannot be issued under grace, then the Adaptive Server does not start or the optional feature are not enabled. Such errors are reported in the Adaptive Server error log as:

```
00:00000:00000:2005/07/05 16:09:12.96 kernel  Sybase
Licensing: Using licenses from: /usr/u/sybase/
SYSAM-2_0/licenses
00:00000:00000:2005/07/05 16:09:13.06 kernel  Sybase
Licensing: Failed to obtain 1 license(s) for ASE_CORE
feature from license file(s) or server(s).
00:00000:00000:2005/07/05 16:09:13.06 kernel  Sybase
Licensing: Cannot find license file.
```

This error message indicates Adaptive Server's inability to obtain a valid license, and lists why the license could not be obtained. If e-mail notification is enabled, an e-mail with this information is also generated. You must fix the license failure before Adaptive Server can start or the optional feature is enabled.

3.1.2 Aquiring SySAM licenses under grace

If the license can be issued under grace, then the issue is logged and Adaptive Server starts, or the optional feature is enabled. The Adaptive Server error log entry looks similar to:

```
00:00000:00000:2005/07/05 15:46:08.84 kernel  Sybase
Licensing: Using licenses from: /opt/sybase/
SYSAM-2_0/licenses
00:00000:00000:2005/07/05 15:46:08.91 kernel  Sybase
Licensing: Checked out graced license for 1 ASE_CORE
(2005.0703) will expire Tue Jul  5 15:47:02 2005.
00:00000:00000:2005/07/05 15:46:08.91 kernel  Sybase
Licensing: Failed to obtain 1 license(s) for ASE_CORE
feature from license file(s) or server(s).
00:00000:00000:2005/07/05 15:46:08.91 kernel  Sybase
Licensing: Cannot find license file
```

If e-mail notification is enabled, an e-mail with this information is generated. Adaptive Server continues to operate normally until the issue causing license failure is fixed, or until the grace period ends. The error message and e-mail notification indicate the date and time the grace period is scheduled to end. The error log entry and e-mail notifications are repeated with increasing frequency while Adaptive Server operates in grace period. Adaptive Server continues to operate normally during the grace period, but you must fix the issue causing the license failure. When the issue is fixed, Adaptive Server automatically acquires the license and moves from grace period mode into normal mode. If Adaptive Server is unable to obtain the license before the end of the grace period, then Adaptive Server shuts down, or the optional features are disabled.

Note If Adaptive Server licenses are obtained from a network license server, Adaptive Server continuously performs a "handshake" with the license server. This is called a "heartbeat." A successfully acquired license could be invalidated during the heartbeat. When this happens, Adaptive Server enters a grace period. This is logged in the Adaptive Server error logs similar to what is logged at start-up.

Use the sp_lmconfig stored procedure without any arguments to display the current status of various licenses Adaptive Server is using. Licenses that issued under grace are marked "graced."

3.2 The SySAM network license server

Note the following information about the SySAM network license server:

1 The SySAM Network license server cannot be started until there is at least one "Served" license copied into the *licenses* directory. Obtain a served license from SPDC before starting the license server.

2 There can be only one SySAM network license server running on a single machine. If you want to install the new license server on a machine that is already running a SySAM 1.0 license server, you must shut down the old license server and migrate the SySAM 1.0 licenses to SySAM 2.0. See the *Configuration Guide* for information about migrating the licenses.

4. Special installation instructions

Adaptive Server Enterprise 15.0 includes new major versions of Adaptive Server and many of the supporting components. All other current Sybase products (for example, Replication Server 12.6 or Enterprise Connect Data Access 12.6) contain earlier version of those same components. Installing Adaptive Server version 15.0 into the same directory with existing products should not impact the existing products. However, installing other products on top of Adaptive Server version 15.0 will likely result in one or more products not working correctly.

Sybase strongly recommends that Adaptive Server version 15.0 be installed into its own directory if possible. Where this is not practical and other products must be installed into the same directory, Adaptive Server version 15.0 should be installed last.

If Sybase products are installed, and you install another Sybase product into a different directory on the same machine, the system variables (for example, *%SYBASE%*) and registry entries are reset to the directory where the last Sybase product was installed. Thus, any Sybase products that were on the system before and were configured to run as Windows services may no longer run automatically and may not be manageable through the Control Panel Service controls.

To correct this problem, run the previously installed products from within a DOS command shell or create scripts that set the environment and run the product. When using a DOS command shell, run the environment scripts, such as *SYBASE.bat* from within the installation directory for that product before running the product to set the variables correctly.

5. Special upgrade instructions

5.1 Upgrading compiled objects

Sybase recommends that as part of the post-upgrade tasks, you should see "Upgrading compiled objects with dbcc upgrade_object" section in Chapter 6 of the *Adaptive Server version 15.0 Installation Guide* for your platform.

5.2 Upgrading high availability and Cluster support

Adaptive Server version 15.0 supports following cluster platforms for Sybase High Availability configuration:

- HP Unix – MCSG 11.15
- IBM AIX – HACMP 5.2
- Sun Solaris – VCS4.0, SunCluster3.0/3.1
- Linux – VCS4.0
- Win2000 – Cluster Manger 5.0
- Win2003 – Cluster Manger 5.2

Adaptive Server does not support SunCluster2.2 and VCS1.3/2.0 HA agents on Sun Solaris.

If you currently have these clusters configured, upgrade the respective cluster versions to configure Adaptive Server 15.0 for High Availability on Sun/Solaris.

5.2.1 Upgrading the cluster subsystem

The cluster subsystem can be upgraded in two ways:

1 Major upgrade which involves downtime need cluster shutdown restart. In this case you must:

   a Suspend the companionship by running sp_companion suspend command as described in *Using Sybase Failover in A High Availability System*.

   b Offline the resource groups of primary and secondary companions on both nodes. Make sure this shuts down both the companion server and their corresponding resource groups are not automatically brought online until the cluster system upgrade is complete.

      Otherwise, when a node is booted after or during the cluster system upgrade, automatically all resource groups may get started on that node leading to unnecessary failovers. For example, in SunCluster3.0 you should “unmanage” the resource groups besides “offline” so that the resource groups are not brought online automatically during intermittent restarts of the cluster system upgrade.

   c Upgrade the cluster subsystem per instructions provided by the cluster system vendor.

You may find upgrade options to migrate the current resource groups to the new or desired cluster version. If such an option is not available (or the resource groups get deleted or corrupted), then you will need to recreate the resource groups and configure them appropriately after the cluster system upgrade.

See the Cluster documentation for more information on creating resource groups or migrating resource groups during upgrade.

d Online the resource groups. This should bring primary and secondary companions on their respective nodes.

e Resume the companionship by running sp_companion resume command as described in *Using Sybase Failover in A High Availability System*.

2 A minor upgrade does not involve a total cluster downtime. In this case, a node is failed over to another node and upgraded one at a time. Assuming ASE1 is the primary companion on node N1, and ASE2 is secondary companion running on node N2, upgrade steps are:

a Upgrade Primary Companion:

1 Failover ASE1 from N1 to N2. This can be achieved by relocating the primary resource group to N2 or by shutting down ASE1.

2 Upgrade cluster subsystem on N1 (based on the upgrade instructions provided by the vendor).

3 Failback ASE1 from N2 to N1. Refer to corresponding cluster chapter in *Using Sybase Failover in A High Availability System* for more details on Adaptive Server failback.

b Upgrade Secondary Companion:

1 If you are using asymmetric configuration:

- Offline secondary resource group and make sure ASE2 is shutdown. Note that ASE2 is not available during this upgrade.
- Upgrade cluster subsystem on N2 (based on the upgrade instructions provided by the vendor).
- Start ASE2 by bringing online secondary resource group on N2.

2 If you are using symmetric configuration, follow the steps in "Upgrade Primary Companion" mentioned above for ASE2:

   1 Failover ASE2 from N2 to N1.

   2 Upgrade cluster subsystem on N2 (based on the upgrade instructions provided by the vendor).

   3 Failback ASE2 from N1 to N2.

5.2.2 Upgrading Adaptive Server configured with high availability

Using the following steps to upgrade high availability-enabled Adaptive Server in active-active configuration:

1 Drop the high availability companionship.

   In asymmetric configuration, on the secondary server, use isql:

   ```
   sp_companion <primary-server-name>, "drop"
   go
   ```

   In symmetric onfiguration, run the above command on both servers.

   Be sure both servers are in Single Server mode. Use isql to verify this on both servers:

   ```
   sp_companion
   go
   ```

2 Use the cluster system command to stop monitoring resources associated with Adaptive Server on each cluster node.

3 Follow the upgrade steps in the Upgrade Chapter of the *Installation Guide* for your platform to upgrade each of the Adaptive Servers separately.

4 Run the new Adaptive Server *installmaster* script against the newly upgraded Adaptive Servers.

5 Run the new Adaptive Server *installhasvss* script against the newly upgraded Adaptive Servers.

6 In the new Adaptive Server installation area, follow the instructions in *Using Sybase Failover in A High Availability System* to configure the permission and ownership for *%SYBASE/%SYBASE_ASE/bin/sybha* and *%SYBASE/%SYBASE_ASE/install/sybhauser*.

7 In the new Adaptive Server installation area, modify high availability-related files such as the *RUN_server_file*, and the *SYBASE.csh* and *SYBASE.sh* files, if those files are required on that cluster platform.

8 Reconfigure each resource associated with Adaptive Server depending on platform-specific requirements. For example, on Veritas Cluster, the *HAase* resource properties, the *RUN_server_file*, and *Sybase_home* need to be updated.

9 Manually restart Adaptive Server on each cluster node with trace flag 2209. Use the Adaptive Server command-line option -T2209.

Warning! Trace flag 2209 must not be used after the Adaptive Server companionship is re-established.

10 Use the cluster system command to restart monitoring resources associated with Adaptive Server on each cluster node.

11 Re-establish companionship by using isql to issue:

```
sp_companion <primary-server-name>, configure
go
```

If user databases exist on the secondary server, warning message may display on the console. There is no need to take any action. You can safely ignore them. The messages look similar to:

```
Msg 18739, Level 16, State 1:
Server 'svr2', Procedure 'sp_hacmpcfgvrfy', Line 102:
Database 'svr2_db1': a user database exists. Drop this
database and retry the configuration again.
```

12 Use the cluster command to offline and then online resource associated with Adaptive Server. Use isql to connect to each Adaptive Server and enter the command to verify the correct server companionship:

```
sp_companion
go
```

Console output on primary server is similar to the following:

```
Server 'svr1' is alive and cluster configured.
Server 'svr1' is configured for HA services.
Server 'svr1' is currently in 'Primary normal' mode.
(return status = 0)
```

Console output on secondary server is similar to the following:

```
Server 'svr2' is alive and cluster configured.
Server 'svr2' is configured for HA services.
Server 'svr2' is currently in 'Secondary normal'
mode.
(return status = 0)
```

Use the following steps to upgrade high availability-enabled Adaptive Servers in active-passive configuration:

1 Use the cluster system command to offline Adaptive Server.

2 Use the cluster system command to stop monitoring resources associated with Adaptive Server.

3 Follow the upgrade steps provided in the Upgrade Chapter of the *Installation Guide* for your platform to upgrade the Adaptive Server to the new version.

4 Run the new Adaptive Server *installmaster* script against the newly upgraded Adaptive Server.

5 In new Adaptive Server installation area, modify the high availability-related files such as the *RUN_server_file*, and the *SYBASE.csh* and *SYBASE.sh* files, if those files are required on that cluster platform.

6 Use the cluster system command to reconfigure resource properties associated with Adaptive Server to reflect the new Adaptive Server installation location.

7 Manually restart Adaptive Server.

8 Use the cluster system command to restart monitoring resource associated with Adaptive Server.

9 Use the cluster command to offline and then online resource associated with Adaptive Server on the same node. Use the cluster command to switch resource associated with Adaptive Server to another node and then switch back.

6. Product and platform interoperability

This section shows the interoperability of Adaptive Server, Replication Server, and Open Client/Server (OCS) products across versions. For specific platform or operating system level information, see the respective product certification reports at http://www.sybase.com/.

Table 1: Interoperability between Replication Server, Open Client/Server, and Adaptive Server

Adaptive Server 15.0	Adaptive Server/ Open Client Server 15.0	Adaptive Server/ Open Client Server 12.5.x	Adaptive Server / Open Client Server 12.0	Replication Server 12.6	Replication Server 12.5
IBM AIX	X	X	X	X	X
Sun Solaris	X	X	X	X	X
Windows 32-bit	X	X	X	X	X
HP-UX	X	X	X	X	X
Linux	X	X	N/A	X	X

Legend

- X = compatibility
- N/A = incompatibility, or the product is not available for that version/platform combination

Note 1 Even though two or more products may be interoperable, features introduced in a newer version of a product are not likely to be supported with older versions of the same or other products.

Note 2 Interoperability between big-endian and little-endian platforms has also been verified. Windows and Linux-32 platforms are little-endian. IBM AIX, Sun Solaris, and HP-UX are big-endian platforms.

7. Changes that may affect existing applications

Following are changes in Adaptive Server that may affect your existing applications.

7.1 Installation, upgrade and migration

Sybase has made the following directory structure changes:

- Adaptive Server, Open Client and Open Services components are in *ASE-15_0* and *OCS-15_0* directory respectively.
- In Adaptive Server version 15.0, all product components use JRE-1_4 and JRE-1_3 is removed. *JRE-1_3* is replaced with *JRE-1_4* in the *%SYBASE/shared* directory.
- The Job Scheduler component (*JS-12_5* in ASE 12.5 release) is now under *ASE-15_0/jobscheduler* directory.

- The licensing component (SYSAM) is now available in *SYSAM-2_0* directory.
- The Web Services offering directory has changed from *WS-12_5* to *WS-15_0*.

7.2 Changes that will affect application behavior

7.2.1 Long identifier changes

- Adaptive Server now supports long identifiers. There are new limits for the length of object names or identifiers: 255 bytes for regular identifiers, and 253 bytes for delimited identifiers. The new limit applies to most user-defined identifiers including table name, column name, and index name and so on. Due to the expanded limits, some system tables (catalogs) and built-in functions have been expanded. For variables, "@" count as 1 byte, and the allowed name for it is 254 bytes long.
- Identifier names should be changed with corresponding application changes for binding values. Please make sure that your application is not binding names of identifiers with only 30 bytes (previous limit). This may cause unexpected behavior or Access violation or bus error or General Protection Fault.

7.2.2 Query changes

- Due to changes in parser, some queries may return general syntax error (message 102) instead of Syntax error at line # (message 156).
- Ordering of result sets in Adaptive Server version 15.0 is different unless there is an order by clause in the query.
- Query compilation time is increased as query processing engine looks for more ways to optimize the query to run better.
- See *Query Processing in Adaptive Server version 15.0* for details about query processing in Adaptive Server version 15.0.

7.2.3 Component Integration Services changes

- Functional compensation will not be done as much as in previous releases. Adaptive Server version 15.0 will send the query to the remote server and if the remote server raises error the same is returned to the client.

For example, in Oracle, the function charlength includes blank spaces. Adaptive Server version 15.0 does not include charlength.

- NULL behavior is different in Oracle, ASA and IQ – you must override the ANSI NULL behavior to have it work like Adaptive Server version 15.0
- Adaptive Server version 15.0 no longer pads char null, varchar, binary null and varbinary datatypes for proxy tables.
- Cursors by default are READONLY. Cursor should be declared with FOR UPDATE to update through them.
- An index must be created if updateable cursors are to be used.
- Component Integration Services engines no longer take special measures to re-declare cursors under the covers for back ends that close cursors on END TRAN.
- An explicit BEGIN TRAN and END TRAN must be declared around cursor statements for DB2 servers.
- When creating a column constraint on java, text, image, and unitext types, message 11074 is raised.
- create table, create existing table, or create proxy table statements that contain a location clause will be restricted to be the only statement in a batch. This applies to select into statements that contain a location clause as well.

7.2.4 Error message changes

- Many messages have been changed to specify “ASE” in the error message.
- When creating a temp table that already exists, Adaptive Server raises message 12822, instead of 2714.
- The identity column overflow message is now raised with message 587 instead of 4916.
- When creating a Java function that does not exist in the catalogs, message 14216 is raised instead of syntax error message 195.
- Using a non-owner executes sp_procxmode to change transaction mode associated with a stored procedure message 10354 is raised.
- Arithmetic overflow errors are now raised with message 3606 with severity 16.

- Message 2579 is replaced with Message 12907 in dbcc checktable output.

7.2.5 jConnect version 5.5 no longer shipped with Adaptive Server

Starting with Adaptive Server version 15.0, jConnect 5.5 is no longer shipped. Only jConnect 6.05 is shipped. If your application is dependent on jConnect 5.5, Sybase recommends you migrate the application to jConnect 6.05 or use an existing jConnect 5.5 release area.

7.2.6 SQL Remote is no longer shipped on the Adaptive Server PC-Client CD

SQL Remote was originally developed to provide bi-directional synchronization between Adaptive Server Anywhere and Adaptive Server Enterprise databases. It has been replaced with a more flexible and powerful technology called MobiLink that provides bi-directional synchronization between ASA/UltraLite clients and various back-end databases including Adaptive Server. To download the developer edition of MobiLink, go to the iAnywhere Web site at http://www.ianywhere.com/developeredition

7.2.7 Table changes

- The following MDA tables have new columns:
  - monEngine
  - monCachedObject
  - monProcessObject
- monCachedObject now tracks the cached pages based on indid, and partitionid.
- sysindexes has the following new columns:
  - partitiontype
  - conditionid
  - status3
- The following sysindexes columns are now maintained in syspartitions:
  - doampg
  - ioampg
  - first
  - root

These columns will have 0 after upgrade. The column base_partition is obsolete and will have 0 after upgrade.

- The syspartitions table that existed prior to upgrade is renamed to sysslices during upgrade. This new table will be empty and unused.
- syscomments gains new columns partitionid
- systabstats gains the following new columns:
  - partitionid
  - pllldegree
  - statmoddate
- sysstatistics gains one new column called partitionid.
- There is a new type of object called partition condition object. This object will have a row in sysobjects. Partition condition object is the representation of a tree for the partition table boundary conditions. The tree is stored in sysprocedures.
- sysobjects has the following new columns:
  - identityburnmax
  - spacestate
  - erlchgts
- sysstatistics stores the data change counters with formatid=108. sysstatistics space requirement increases due to the additional rows stored.
- Most system catalogs have been converted to data rows lock scheme. The DDLs however continue to use the table level locks. The row locking of the system catalogs may require a increase in the configuration parameter number of locks, depending on the DDLs in the application.
- The system catalogs converted to datarows lock scheme do not have a clustered index with indid equal to 1. The clustered indices now have index id greater than or equal to 2.

7.3 Changes that affect database administration operations

7.3.1 Usage of system built-ins

Built-in functions that provide space information like data_pgs, reserved_pgs, used_pgs, ptn_data_pgs and rowcnt have been deprecated. They have been replaced with data_pages, reserved_pages, used_pages, and row_count. See the Adaptive Server Reference Manual: Volume 1 for detailed information.

7.3.2 DDL and DML changes

- alter table… unpartition is not allowed on table with indexes (use alter table with 1 partition to remove the partitions.)
- alter table on a partitioned table with max parallel degree less than number of partitions may succeed without raising message 326.
- Creating clustered index on an empty partitioned table will return a new informational message 1936 in Adaptive Server version 15.0.
- During view creation null column names are not allowed.
- In Adaptive Server version 15.0, a select that contains a aggregate from a proxy table that is mapped to an RPC with a parameter fails with error message 201.

7.3.3 System stored procedure changes

- The output of sp_help *object* has been changed. Specifically, “Data_Located_on_segment” has been removed. “Computed_Column_Object” and information related to partitions have been added.
- The order of index_keys and index_description in the output of sp_helpindex has been changed.
- Major changes are implemented for sp_helpartition, sp_helpsegment outputs.
- When sp_who is invoked, it returns “NULL” instead of blank in the hostname column for all system tasks.
- When sp_who is invoked, it will result in SQL command (insert or select) in the output. In the prior releases of Adaptive Server version 15.0, sp_who always return select for the tasks that execute sp_who.

- sp_objectsegment now displays the segment information for all the partitions of the table.
- sp_lock output has a new column called partitionid. This column has a value of 0 now and is reserved for future.
- sp_monitorconfig now accepts number of open partitions. When this procedure is executed with the parameter all, additional output for configuration parameter number of open partitions is displayed.
- The Metadata Cache Management section of sp_sysmon displays additional information pertaining to open partitions.

7.3.4 Common diagnostics changes including trace flag usage

- dbcc listoam output has changed substantially.
- The space state message printed in the old dbcc listoam output is now available as a new column spacestate in sysobjects.
- dbcc tablealloc output has changed.
- dbcc page's output has changed to print partition ID instead of object ID.
- dbcc checktable output on a partitioned table has been changed to provide partition level information.
- dbcc checktable/tablealloc/indexalloc has new syntax for partition support.
- Output of "REORG RECLAIM_SPACE <tablename> with RESUME" has changed.
- reorg rebuild will fail with message 11051 when table is in use by other tasks.
- Output of sp_dbcc_faultreport has been enhanced to show partition ID information.
- The hostname, program_name, hostprocess and cmd columns in sysprocesses are changed to varchar(30) and made nullable. Select from sysprocesses will return NULL for these columns instead of space for system tasks.
- The "first" column in sysindexes is moved to "firstpage" column in syspartitions.
- The name column in syspartitions has been changed from index_name+_+tableid to index_name+_+ptn_id for partition table with indexes.

- The basic costing of the optimizer now includes CPU cost.
- Parallel costing is done only on base tables/indexes that are greater than 20 pages.
- For information about trace flags and diagnostics information, see the *Query Processor Guide*.

7.3.5 System resources changes

- Adaptive Server version 15.0 uses more procedure cache for several reasons. Most important reasons are:
  - Adaptive Server version 15.0 query processing engine looks for more ways to optimize the query to run better
  - Adaptive Server version 15.0 execution engine avoids materialization of work table and tends to evaluate aggregations in memory as much as possible.
  - The data change counters maintained for the function datachange() allocates memory from procedure cache. The partition condition tree is cached in the procedure cache. Partition boundary values are allocated in the procedure cache resulting in a required increase in procedure cache resources.
- In Adaptive Server 15.0, a new configuration parameter max repartition degree has been added. This parameter controls the maximum degree to which an intermediate data stream can be re-partitioned. The default value of this parameter is set to 1, which means that this parameter is not set and is bound by the number of online engines configured for Adaptive Server. For a query with a large number of tables Adaptive Server version 15.0 can put an increased demand on auxiliary scan descriptors.

  Set the value of max repartition degree to a value lower than the number of engines to decrease such resource usage. Also, configuring a larger value for the auxiliary scan descriptor pool may be required.
- Adaptive Server version 15.0 avoid worktable materialization and Adaptive Server version 15.0 may incur more resources in auxiliary scan descriptors.
- During upgrade, max memory is increased by Adaptive Server if the new total logical memory is greater than max memory. The new value of max memory is set to the new value of total logical memory.

- During upgrade, number of open partitions is set to the same value as number of open indexes resulting in increased memory usage. An open partition requires approximately 950 bytes.

7.3.6 Unpartitioning of user tables during upgrade

During upgrade, Adaptive Server unpartitions any partitioned tables. You are required to repartition the table post-upgrade. The unpartitioning occurs due to the requirement in 15.0 for each partition to have a different partitionid. The expensive operation of changing the partitionid for each page during upgrade has been avoided and hence the unpartition during upgrade.

7.3.7 Space management changes

- The system databases have increased in size by 2 allocation units. The master database has increased in size by 14 allocation units. The default user database size has increased by 2 allocation units.
- Upgrade requires free space to convert system catalogs to datarows lock scheme. The typical requirement for free space is 125 percent of the largest system catalog. If the upgrade is from a 32 bit to 64 bit binary, an addition space of 55 percent of sysprocedures is required.

7.3.8 Changes to transaction dump content from pre-version 15.0 Adaptive Server releases

A transaction dump from 11.9.2, 12.0x, or 12.5x can be loaded atop a database dump or transaction dump which has preceded it in the load sequence.

However, if that transaction dump contains a create index transaction, then load transaction recovery will treat that transaction's sort record as the end of the log. No more log records in that transaction dump will be processed, and no more transaction dumps in the load sequence will be allowed to load. This behavior is much like the point-in-time recovery that is effected by load transaction's until_time option. The following message is printed when load transaction terminates due to the above mentioned reason:

```
The pre-15.0 log for database '%.*s' includes a create
index incompatible with this server version and
operating environment. Only transactions completed
before create index will be recovered.
```

In contrast, any database dump from one of those releases should be successfully loaded by Adaptive Server, regardless of its content.

There is no content limitation in load database or load transaction when using a dump from a version 15.0 Adaptive Server.

7.4 Open Client and Open Server changes

For information about changes that affect Open Client and Open Server see "Known issues" section of the *Open Client and Open Server Release Bulletin*.

8. Known problems

This section describes known problems and workarounds for Adaptive Server.

8.1 Highlighted known installation issues

This section contains information about known installation problems and their workarounds.

8.1.1 Uninstalling Adaptive Server

[CR #400959] If you install Adaptive Server 15.0 on top of Replication Server version 12.6, uninstalling Adaptive Server 15.0 does not remove files.

Workaround: There is no workaround for this issue.

8.2 Highlighted known Job Scheduler issues

This section contains information about known Job Scheduler issues and their workarounds.

8.2.1 Syntax error in the Job Scheduler utility scripts

[CR #402102] The Job Scheduler utility scripts that are used to import templates, remove templates, create a job from a template, and so on contain a syntax error when setting the SYBASE_JS environment variable.

Workaround: Change:

```
set SYBASE_JS="jobscheduler"
```

to:

```
set SYBASE_JS=jobscheduler
```

in the following files:

- *GenericTempUtil.bat*
- *temprem.bat*
- *temputil.bat*
- *tempimp.bat*
- *temptojob.bat*

8.2.2 Modifying Job Scheduler SQL

[CR #400948] SQL Editor and Load buttons on the Add Scheduled Job, Job Command page of the Remote Job Scheduling wizard (accessed from Schedule button) do not allow the user to modify the job SQL.

Workaround: Do not click on these buttons. You are not allowed to edit the automatically generated SQL of a remotely scheduled job. After the job is created, the user may connect to the Job Scheduler server and modify the SQL for the job from within the Scheduled Jobs folder.

8.3 Highlighted known ASE Replicator problems

8.3.1 ASE Replicator 15.0 supports only ASE 12.5 datatypes

ASE Replicator 15.0 does not support the new datatypes that are introduced in Adaptive Server version 15.0: bigint, unsigned bigint, unsigned int, unsigned smallint, unitext, computed columns, XML, and encrypted columns. It also does not support the new large identifiers.

8.4 Highlighted known XML problems

8.4.1 Storing a parsed XML document in a *varbinary* column

[CR #400269] If you try to store a parsed XML document in a varbinary column, the document is truncated by one byte at the end. As a result, you cannot query that document.

Workaround: Do not store a parsed XML document in a varbinary column.

8.4.2 Cross platform *bcp* of parsed XML images

[CR #400250, 332012] For parsed XML image values, you cannot use bcp or replicate parsed XML image data between a big-endian platform and a little-endian platform, for example between a Solaris platform (big-endian) and a Linux or Windows platform (little-endian).

The term "parsed XML image data" refers to data of datatype image that is generated by the xmlparse built-in function.

Workaround: When you transfer XML data between platforms, transfer the character form of the XML documents rather than the parsed XML form. If you have not stored the character form of the XML documents, you can regenerate it from the parsed form. For example, if column xmlindexed of the xmldocuments table is an image column containing parsed XML image data, the following two commands append a new text column to the table and populate it with a character form of the documents contained in the xmlindexed column:

```
alter table xmldocuments add xmltext text
update xmldocuments set xmltext = xmlextract('/', xmlindexed)
```

Then you can use bcp or replicate the xmltext column from one platform to the other.

8.5 Highlighted known Web Services problems

8.5.1 Run scripts fail to find LDAP configuration file

[CR #401115] When the ASE Web Services Engine is started, the *runws* script looks for LDAP configuration information in the *libtcl.cfg* file. If LDAP has not been configured, the following messages appear in the *producer.log* file:

```
INFO [main] - Unable to locate LDAP configuration file-
libtcl.cfg.
INFO [main] - java.io.FileNotFoundException: LDAP
config File does not exist
```

Workaround: These messages are informational and can be ignored if your system is not configured to use LDAP directory services.

8.5.2 Alias names limited to 255 characters

[CR #400949] Alias names may be no longer than 255 characters. If an alias longer than 255 characters is added using the addalias option of sp_webservices, the alias name is truncated to 255 characters. No notification of this truncation is provided.

Workaround: Do not create alias names longer than 255 characters.

8.6 Highlighted known Interactive SQL and ASE plug-in issues

The following section discusses known Interactive SQL and ASE plug-in issues and their workarounds.

8.6.1 Opening XML files with Interactive SQL

[CR #400825] Interactive SQL gets a stack trace trying to open an XML file

Workaround: There is no workaround for this issue.

8.6.2 Displaying messages next to result sets with Interactive SQL

[CR #386931] Interactive SQL does not display messages next to result sets, making it difficult to read the output of certain stored procedures such as sp_help with multiple results and messages.

Workaround: Use command-line isql instead.

8.6.3 Running a script file with Interactive SQL

[CR #401391] Interactive SQL cannot run script files without a *.sql* extension such as *installpubs2*.

Workaround: Instead of using "Run Script", use File | Open to option the script file first, and then run the script manually.

8.6.4 Connecting or disconnecting from pass-through servers using Interactive SQL

[CR #400436] Adaptive Server's connect to <server_name> and disconnect commands conflict with Interactive SQL's own connect and disconnect commands.

Workaround: There is no workaround for this issue.

8.6.5 Interactive SQL's Make Permanent button

[CR #400053] Interactive SQL's Make Permanent button does not save options permanently

Workaround: There is no workaround for this issue.

8.6.6 ASE plug-in shows incorrect status for Job Scheduler task

[CR #401265] When you open the Job Scheduler Administration window, the Job Scheduler task status always displays as stopped, even when the task is running. Because of this incorrect status, the Stop button is disabled.

Workaround: Start and stop Job Scheduler task from isql, using the sp_js_wakeup procedure.

To start a Job Scheduler task, run: `sp_js_wakekup 'start_js', 1`

To stop a Job Scheduler task, please run: `sp_js_wakeup 'stop_js', 1`

8.6.7 Interactive SQL may not generate plans for SQL statements using go

[CR #400362] Interactive SQL cannot generate plan for SQL statements separated with go.

Workaround: Eliminate go between SQL statements.

8.6.8 Connecting ASE plug-in to RepConnect

[CR #400709] The ASE plug-in cannot connect to Adaptive Server if RepConnect 2.5 and ASE plug-in 15.0 are installed in the same *%SYBASE* location.

Workaround: Install RepConnect and ASE plug-in into different *%SYBASE* directories.

8.6.9 Query support in Interactive SQL

[CR #398435] Interactive SQL does not support queries with a compute clause.

Workaround: Use isql instead.

8.6.10 ASE plug-in drag and drop server capability

[CR #400226] The ASE plug-in drag and drop server capability is sometimes not available.

Workaround: Use copy, cut, or paste instead, by right-clicking on selected server and selecting copy, cut, or paste.

8.6.11 Finding help in the Options dialog

[CR #399507] DBISQL cannot find the help topic HELP_SCEDITOR_TAB_CUSTOMIZATION in the Options dialog.

Workaround: Start Interactive SQL online help through Help | Interactive SQL | Help. Open Using Interactive SQL Help and find the relevant section in Interactive SQL dialog boxes.

8.6.12 Unified Agent Framework RMI ports

[CR #398968] The Unified Agent Framework RMI ports other than 9999 are not supported by the ASE plug-in. The ASE plug-in does not allow users to change the default RMI port.

Workaround: Use 9999 as the default port

8.6.13 ASE plug-in data panel for a table with a binary null column

[CR #382837] When a binary column has a length of less then 256, the ASE plug-in data panel for a table with a binary null column displays a value with trailing nulls.

Workaround: There is no workaround for this issue.

8.6.14 Starting Interactive SQL from a command line fails

[CR #402435] When trying to start Interactive SQL from the command line and error is returned starting with "unrecognized option -path=.....". On Windows, starting Interactive SQL from the start menu results in a brief flash from a DOS window starting up and immediately closing.

Workaround: Edit the script file and change the -path command line argument to -Dpath to correct the problem. The script file is located at:

- *$SYBASE/DBISQL/bin/dbisql* on UNIX
- *%SYBASE\DBISQL\bin\dbisql.bat* on Windows

8.7 Statistics in system tables

[CR #399624] When creating, configuring, or upgrading a server to Adaptive Server version 15.0, the system catalogs do not have the right index statistics or table level statistics.

Workaround: Run update index statistics on the following system tables:

- sysobjects
- sysindexes
- syscolumns
- systypes
- syslogins
- sysusers

For example, run:

```
update index statistics <system catalog name>
go
```

8.8 Running checkstorage on an upgraded master device may report faults with the *syscharsets* catalog

[CR #401779] A master device originally created either in 11.9.x or 12.0.x, upon upgrade to Adaptive Server version 15.0 may report errors on the syscharsets catalog. These fault are reported when checkstorage is run on the upgraded master device and sp_dbcc_faultreport is used to report the faults.

Workaround: This problem is harmless and exists in all previous releases but is not reported by checkstorage.

8.9 Monitor GUI does not start when the LDAP server is used

[CR #400784] When the Monitor Client GUI is started in an environment where LDAP is used instead of the *interfaces* file, the Monitor Client GUI is not able to connect to any servers.

Workaround: Create an *interfaces* file with entries for the servers that are to be monitored and use this with the Monitor Client GUI.

8.10 A stacktrace occurs when inserting into a table with identity column using *select distinct*

[CR #401753] If you have enabled parallel plan, and you insert into a table with an identity column using select distinct and one of the select distinct list items is an expression or an implicit convert() expression, this query may cause cause a stacktrace. Here is an example query:

```
create table tt(id numeric(5) identity not null, c1 int,
c2 int)
go
insert into tt select distinct c1, c2+1 from t
go
```

Workaround: Disable parallel plan for the query. For the above example query, you can disable parallel plan for it using:

```
insert into tt select distinct c1, c2+1 from t (parallel 1)
```

8.11 SySAM licenses are needed before upgrading Adaptive Server

[CR #401682] When you are upgrading Adaptive Server from a release earlier than 15.0, Adaptive Server may not correctly calculate the grace period. When this happens, Adaptive Server does not start under “Installation Grace.” This results in a failed upgrade.

Workaround: Before performing an upgrade, ensure that you have obtained suitable licenses from Sybase Product Download Center (SPDC). Check your Adaptive Server 15.0 installation to make sure that Adaptive Server is able to obtain the required licenses. See the SySAM Configuration chapter in *Adaptive Server Configuration Guide* for more details.

8.12 Cross platform loads

[CR #371289] Adaptive Server does not support cross platform dump and load from one Adaptive Server version 15.0 to another. However, pre-15.0 to 15.0 platform dump and load is supported.

Workaround: There is no workaround for this issue.

8.13 Running *dbcc checktable* or *dbcc checkdb* before bring a database online

[CR #356308] Running dbcc checktable or dbcc checkdb after the load of a database, but before online database, can show errors due to a mismatch in the number of rows in systabstats data and index.

Workaround: Do not run dbcc checktable or dbcc checkdb after the load and before online.

8.14 Recovering from an upgrade during an *online database* command

[CR #401660] In Adaptive Server version 15.0, after load database has loaded a database dump that was created by an Adaptive Server executable of a version preceding 15.0, if there should be a system failure during the Online Database command, then the ensuing boot recovery may see errors while recovering the same database.

Workaround: Reload the database dump.

8.15 Messaging functionality

[CR #401927] Messaging functionality does not work.

Workaround: There is no workaround for this problem. Contact Sybase Technical Support for assistance.

8.16 The configuration parameter *allow backward scan* does not work

[CR #401543] The configuration parameter allow backward scan does not work in Adaptive Server version 15.0.

Workaround: If you are encountering increased deadlocks due to backward scans, break problematic descending scans into two steps. First, select the required rows into a temporary table in ascending order. Then, select from the temporary table in descending order.

8.17 Modifying dbccdb schema for large identifiers

[CR #400680] The dbccdb database does not support workspace names longer than 30 characters. Further exclusions cannot be defined for tables with names longer than 30 characters.

Workaround: Alter the table dbcc_exclusions in dbccdb to modify the table_name column from varchar(30) to varchar(255) and modify the stored procedure sp_dbcc_run_evaluatedb to modify the *@wsname* local variable from varchar(30) to varchar(255).

8.18 Drop definition time table corruption

[CR #397910] If an attempt to create a new table using select into fails, a subsequent dbcc checkcatalog in the target database might run into errors reporting on missing rows between syscomments and sysprocedures. This error occurs for the definition-time table that was created as part of the previously failed select into statement. One common instance of such failures is insufficiently configured number of locks parameter, which can result in a 1204 error message, indicating an insufficient number of locks.

Workaround: Drop the table referenced by its object ID in the error message. Then, re-execute the failed select into command by increasing the number of locks configuration parameter.

8.19 Manual upgrade with named cache fails

[CR #401279] If a named cache exists in the installation being upgraded and if a configuration file that does not contain the named cache configuration is used during upgrade, the upgrade fails.

Workaround: Use the sqlupgrade utility to perform the upgrade. sqlupgrade utility uses the configuration file from the installation being upgraded.

8.20 Running diskrefit to recover a corrupt master device may report errors

[CR #399678] Certain operations done one after another, and certain combinations of circumstances, can cause apparent page allocation errors.

If you starts Adaptive Server with "-w master", and when that finishes, restart immediately with "-w model", the master database reports that a page should belong to object 8, syslogs, but instead belongs to some other object, and tempdb may report 806 errors.

Workaround: Between those two operations, restart Adaptive Server with -m and then shut down.

8.21 Using an equi-join clause between two different length columns

[CR #401336] if you have a equi-join clause between two different length char() and char()/varchar() type columns and also use char_length() on one of the columns, the result of the char_length() is indeterminate. For example:

```
create table t1 (sid char(8), styp char(5))
go
create table t2 (sid char(16))
go
select char_length(a.sid)
from t1 a, t2 b
where a.sid=b.sid and styp = 'R1'
go
```

Workaround: Use convert() in char_length() to state explicitly which type you need for the char_length.

For example, in the above query, use:

```
select char_length(convert(char(8), a.sid))
from t1 a, t2 b
where a.sid=b.sid and styp = 'R1'
```

The same is true for binary() and varbinary() with data_length(), unichar() and univarchar() with char_length().

8.22 *set statistics io* does not display I/O generated by worker processes

[CR #358654] After executing a parallel query, set statistics io does not display I/O counts generated by worker processes. It only displays the parent thread scan, logical I/O, and physical I/O counts.

Workaround: There is no workaround for this issue.

8.23 *alter table unpartition* errors

[CR #400988] If a server crashes following an alter table unpartition operation of very large tables, the server recovery after restart can leave the table in an inconsistent or corrupt state. dbcc check table and other commands affecting table's pages can result in wrong page errors. In some cases, the recovery process encounters timestamp mismatches on pages allocated to the table being unpartitioned. This form of corruption is possible when you issue a shutdown no wait command, and affect very large tables with multiple OAM pages in the OAM chain for each partition.

Workaround: Run `"CHECKPOINT <database>"` immediately following an unpartition operation. In addition, a polite shutdown avoids this form of corruption.

8.24 Edit and Load windows

[CR #400948] You cannot edit SQL for a remotely scheduled job. In the ASE plug-in, SQL Editor and Load buttons incorrectly display on the Add Scheduled Job page in the Remote Job Scheduling wizard. Clicking SQL Editor or Load button displays SQL the Edit or Load windows, but they do not function.

Workaround: Cancel the Add Scheduled Job page and close the corresponding SQL Editor or Load windows. After the job is created, you can connect to the Job Scheduler server and modify the SQL for the job from within the Scheduled Jobs folder.

8.25 Replication Server compatibility issues

[CR # 382874] 12.6 and earlier version of rs_init are unable to create an RSSD database on Adaptive Server version 15.0.

Workaround: Create the RSSD database by hand before using rs_init to create a new Replication Server if they do not use an Embedded RSSD. See the *Replication Server Administration Guide* for additional information.

8.26 Blank spaces in an *ldap* server entry

[CR #333307] If you have a blank space after your ldap server entry, dscp defaults to using the interfaces driver and does not connect to an ldap server.

Workaround: When you want to use dscp to make an entry into an ldap server, enable ldap by editing the *%SYBASE/OCS-15_0/config/libtcl.cfg* file to add the ldap server you plan to use.

8.27 *cis connect timeout* and *enable SNMP* are not implemented

[CR #323177] Configuration parameters cis connect timeout and enable SNMP are not currently implemented.

Workaround: Do not use these configuration parameters.

8.28 Handling multibyte character sets during migration

[CR #353079] If you configure multibyte character sets after migrating data from system catalogs sysattributes and sysxtypes, the text columns in these catalogs are inconsistent with the multibyte character sets.

Workaround: Manually run dbcc fix_text on sysattributes and sysxtypes, to make the text columns consistent with the multibyte character sets.

9. Product compatibilities

This section lists the Sybase components that are compatible with Adaptive Server Enterprise version 15.0. For information about operating system requirements, see individual component documentation.

Note DirectConnect 12.6 for Informix, MSSS, UDB does not support LDAP.

The following components have been tested for compatibility with Adaptive Server version 15.0

- Sybase Character Sets 3.0
- Sybase Central viewer 4.3
- ECDA option for ODBC 12.6
- ECDA option for Informix 12.6
- MainframeConnect DirectConnect for z/OS 12.6
- ECDA option for Oracle 12.6
- ECDA option for Microsoft SQL Server 12.6

- ECDA option for DB2 Universal Database 12.6
- OpenSwitch 12.5, OpenSwitch 12.5.1, ESD #2

Note OpenSwitch 12.5 does not support SSL.

- jConnect for JDBC 6.05
- jConnect for JDBC 5.5
- Open Server™ 12.5.1
- SDK 12.5.1
- Open ServerConnect™ (CICS, IMS/MVS) 4.0
- Open ClientConnect™ (CICS, IMS/MVS) 4.0
- ODBC Driver by Sybase 12.5.1
- OLE DB Provider by Sybase 12.5.1
- ODBC Driver by Sybase 15.0
- OLE DB Provider by Sybase 15.0
- InfoMaker 7.0.3
- Replication Server® 12.6
- Physical Architect 8.0
- XA-Library for CICS/ENCINA/Tuxedo 12.5.1
- ADO.NET 1.5

9.1 Known compatibility issues

9.1.1 Installing Enterprise Connect Data Access (ECDA) or MainframeConnect DirectConnect for z/OS with other Sybase software

Sybase strongly recommends you install ECDA Direct Connect option or Mainframe Connect DirectConnect for z/OS, including Direct Connect Manager, into its own product directory.

9.1.2 Installing Replication Server with other Sybase software

Because there are incompatibilities among some Sybase components, Sybase strongly recommends that you install Replication Server, including Replication Server Manager (RSM) Server, in its own product directory, separate from other Sybase products.

9.1.3 Using Job Scheduler templates

Sybase recommends upgrading to the Job Scheduler templates provided wiAdaptive Server 15.0. The templates contain an important changes support new functionality and used new built-ins reserved_pages and data_pages. For information on upgrading the templates, see the Upgrading Adaptive Server, Chapter 5, in the *Installation Guide* for your platform.

Note If you have existing jobs created from templates delivered with a pre-12.5.2 Adaptive Server, you will need to refer to the 12.5.2 Release Bulletin for your platform and follow the upgrade steps there for the Job Scheduler templates. Then you can upgrade Job Scheduler templates using the above information.

---

10. Technical support

Each Sybase installation that has purchased a support contract has one or more designated people who are authorized to contact Sybase Technical Support. If you have any questions about this installation or if you need assistance during the installation process, ask the designated person to contact Sybase Technical Support or the Sybase subsidiary in your area.

11. Other sources of information

Use the Sybase Getting Started CD, the SyBooks CD, and the Sybase Product Manuals Web site to learn more about your product:

- The Getting Started CD contains release bulletins and installation guides in PDF format, and may also contain other documents or updated information not included on the SyBooks CD. It is included with your software. To read or print documents on the Getting Started CD, you need Adobe Acrobat Reader, which you can download at no charge from the Adobe Web site using a link provided on the CD.

- The SyBooks CD contains product manuals and is included with your software. The Eclipse-based SyBooks browser allows you to access the manuals in an easy-to-use, HTML-based format.

  Some documentation may be provided in PDF format, which you can access through the PDF directory on the SyBooks CD. To read or print the PDF files, you need Adobe Acrobat Reader.

  Refer to the *SyBooks Installation Guide* on the Getting Started CD, or the *README.txt* file on the SyBooks CD for instructions on installing and starting SyBooks.

- The Sybase Product Manuals Web site is an online version of the SyBooks CD that you can access using a standard Web browser. In addition to product manuals, you will find links to EBFs/Maintenance, Technical Documents, Case Management, Solved Cases, newsgroups, and the Sybase Developer Network.

  To access the Sybase Product Manuals Web site, go to Product Manuals at http://www.sybase.com/support/manuals/.

11.1 Sybase certifications on the Web

Technical documentation at the Sybase Web site is updated frequently.

❖ **Finding the latest information on product certifications**

1. Point your Web browser to Technical Documents at http://www.sybase.com/support/techdocs/.
2. Select Products from the navigation bar on the left.
3. Select a product name from the product list and click Go.
4. Select the Certification Report filter, specify a time frame, and click Go.
5. Click a Certification Report title to display the report.

❖ **Finding the latest information on component certifications**

1. Point your Web browser to Availability and Certification Reports at http://certification.sybase.com/.
2. Either select the product family and product under Search by Product; or select the platform and product under Search by Platform.
3. Select Search to display the availability and certification report for the selection.

❖ **Creating a personalized view of the Sybase Web site (including support pages)**

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

1 Point your Web browser to Technical Documents at http://www.sybase.com/support/techdocs/.

2 Click MySybase and create a MySybase profile.

11.2 Sybase EBFs and software maintenance

❖ **Finding the latest information on EBFs and software maintenance**

1 Point your Web browser to the Sybase Support Page at http://www.sybase.com/support.

2 Select EBFs/Maintenance. If prompted, enter your MySybase user name and password.

3 Select a product.

4 Specify a time frame and click Go. A list of EBF/Maintenance releases is displayed.

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

5 Click the Info icon to display the EBF/Maintenance report, or click the product description to download the software.