



Release Bulletin

---

**Adaptive Server<sup>®</sup> Enterprise  
Cluster Edition 15.7 ESD #2**

Linux

DOCUMENT ID: DC00761-01-1572-01

LAST REVISED: July 31, 2012

Copyright © 2012 by Sybase, Inc. All rights reserved.

This publication pertains to Sybase software and to any subsequent release until otherwise indicated in new editions or technical notes. Information in this document is subject to change without notice. The software described herein is furnished under a license agreement, and it may be used or copied only in accordance with the terms of that agreement.

Upgrades are provided only at regularly scheduled software release dates. No part of this publication may be reproduced, transmitted, or translated in any form or by any means, electronic, mechanical, manual, optical, or otherwise, without the prior written permission of Sybase, Inc.

Sybase trademarks can be viewed at the Sybase trademarks page at <http://www.sybase.com/detail?id=1011207>. Sybase and the marks listed are trademarks of Sybase, Inc. ® indicates registration in the United States of America.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and in several other countries all over the world.

Java and all Java-based marks are trademarks or registered trademarks of Oracle and/or its affiliates in the U.S. and other countries.

Unicode and the Unicode Logo are registered trademarks of Unicode, Inc.

IBM and Tivoli are registered trademarks of International Business Machines Corporation in the United States, other countries, or both.

All other company and product names mentioned may be trademarks of the respective companies with which they are associated.

Use, duplication, or disclosure by the government is subject to the restrictions set forth in subparagraph (c)(1)(ii) of DFARS 52.227-7013 for the DOD and as set forth in FAR 52.227-19(a)-(d) for civilian agencies.

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

# Contents

<b>Product Summary .....</b>	<b>1</b>
Adaptive Server Interoperability .....	1
Product Compatibility .....	5
Password Compatibility with Replication Server .....	5
Changes That Affect Existing Applications .....	6
Changes to Sybase Central .....	6
Backup Server and IBM Tivoli Storage Manager .....	6
Open Client and Open Server .....	6
Command Line Version of ddlgen .....	7
Changed Functionality .....	7
Support for db2 Server Class .....	7
Change to kill command in clustered environments .....	7
Unsupported Features and Utilities .....	7
Replication Management Support for Granular Permissions .....	8
Plan Sharing Recommendations for 15.7 ESD #2 SAP ERP Customers .....	9
<b>Installation and Configuration .....</b>	<b>9</b>
Special Installation Instructions .....	9
Special Configuration Instructions .....	10
Configure Adaptive Server for Clients Using EPEP Algorithm .....	10
Special Upgrade and Downgrade Instructions .....	11
Special Downgrade Instructions .....	11
Loading Database Dumps into Earlier Versions .....	12
TIPSA Flag 0x4000 Error After Upgrade .....	12

Known Installation Issues for Adaptive Server Cluster Edition .....	13
<b>Known Plug-In Issues for Adaptive Server Cluster Edition .....</b>	<b>17</b>
<b>Known Issues for Adaptive Server Cluster Edition .....</b>	<b>18</b>
<b>Documentation Updates .....</b>	<b>24</b>
<b>Obtaining Help and Additional Information .....</b>	<b>25</b>
Technical Support .....	26
Downloading Sybase EBFs and Maintenance Reports .....	26
Sybase Product and Component Certifications .....	27
Creating a MySybase Profile .....	27
Accessibility Features .....	27

# Product Summary

This release bulletin provides late-breaking information about Adaptive Server® Enterprise version 15.7 ESD #2. A more recent version may be available on the Web.

Adaptive Server Enterprise server and client components are distributed on separate CDs or DVDs.

See the Cluster Edition installation guide for operating system requirements, and <http://certification.sybase.com> for additional supported operating systems.

## *Installation kit*

The installation kit includes:

- Server media (CD or DVD)
- PC-Client media
- Getting Started media with the following documentation, specific to your platform:
  - Installation guide
  - Release bulletin (this document)

## Adaptive Server Interoperability

---

Interoperability of Adaptive Server against other Sybase® products, across different platforms, versions, and client products.

Interoperability between big-endian and little-endian platforms has been verified. Windows, Linux x86-32, Linux x86-64, Sun Solaris x86-32, and Sun Solaris x86-64 are little-endian platforms. IBM AIX, Linux on Power, Sun Solaris SPARC, and HP-UX on Itanium are big-endian platforms.

---

**Note:** To use new features of Adaptive Server Cluster Edition, make sure that your client supports them. See the client-specific documentation for information about the features your client supports. You may need to upgrade your client to use certain Cluster Edition features.

---

**Table 1. Supported Client Platforms for Adaptive Server**

Client Name	Version	Supported Platform
Open Client™/Open Server™	15.7	<ul style="list-style-type: none"> <li>• AIX 32-bit</li> <li>• AIX 64-bit</li> <li>• HP-UX IA 32-bit</li> <li>• HP-UX IA 64-bit</li> <li>• Linux x86 32-bit</li> <li>• Linux x64 64-bit</li> <li>• Linux Pseries 32-bit</li> <li>• Linux Pseries 64-bit</li> <li>• Solaris 32-bit</li> <li>• Solaris 64-bit</li> <li>• Solaris x86 32-bit</li> <li>• Solaris x86 64-bit</li> <li>• Windows x86 32-bit</li> <li>• Windows x86 64-bit</li> </ul>
	15.5	<ul style="list-style-type: none"> <li>• AIX 32-bit</li> <li>• AIX 64-bit</li> <li>• HP-UX 32-bit</li> <li>• HP-UX 64-bit</li> <li>• HP-UX IA 32-bit</li> <li>• HP-UX IA 64-bit</li> <li>• Linux x86 32-bit</li> <li>• Linux x64 64-bit</li> <li>• Linux Pseries 32-bit</li> <li>• Linux Pseries 64-bit</li> <li>• Solaris 32-bit</li> <li>• Solaris 64-bit</li> <li>• Solaris x86 32-bit</li> <li>• Solaris x86 64-bit</li> <li>• Mac OS X Intel 32-bit</li> <li>• Windows x86 32-bit</li> <li>• Windows x86 64-bit</li> </ul>

Client Name	Version	Supported Platform
Adaptive Server Enterprise Extension Module for Python	15.7	<ul style="list-style-type: none"> <li>• AIX 64-bit</li> <li>• HP-UX IA 64-bit</li> <li>• Linux x64 64-bit</li> <li>• Linux Pseries 64-bit</li> <li>• Solaris 64-bit</li> <li>• Solaris x86 64-bit</li> <li>• Windows x86 64-bit</li> </ul>
Adaptive Server Enterprise Extension Module for PHP	15.7	<ul style="list-style-type: none"> <li>• AIX 64-bit</li> <li>• HP-UX IA 64-bit</li> <li>• Linux x64 64-bit</li> <li>• Linux Pseries 64-bit</li> <li>• Solaris 64-bit</li> <li>• Solaris x86 64-bit</li> <li>• Windows x86 64-bit</li> </ul>
Adaptive Server Enterprise Database Driver for PERL	15.7	<ul style="list-style-type: none"> <li>• AIX 32-bit</li> <li>• HP-UX IA 32-bit</li> <li>• Linux x64 64-bit</li> <li>• Linux Pseries 32-bit</li> <li>• Solaris 32-bit</li> <li>• Solaris x86 32-bit</li> <li>• Windows x86 64-bit</li> </ul>
jConnect™ for JDBC™	6.0.x, 7.0.x	<ul style="list-style-type: none"> <li>• All</li> </ul>

## Product Summary

Client Name	Version	Supported Platform
ODBC by Sybase	15.7	<ul style="list-style-type: none"> <li>• Linux x86 32-bit</li> <li>• Linux x64 32-bit</li> <li>• Linux x64 64-bit</li> <li>• AIX 64-bit</li> <li>• HP-UX IA 64-bit</li> <li>• Linux Pseries 64-bit</li> <li>• Solaris 64-bit</li> <li>• Solaris x86 64-bit</li> <li>• Windows x86 32-bit</li> <li>• Windows x64 32-bit</li> <li>• Windows x64 64-bit</li> </ul>
	15.5.x	<ul style="list-style-type: none"> <li>• Linux x86 32-bit</li> <li>• Linux x64 32-bit</li> <li>• Linux x64 64-bit</li> <li>• Mac OS X Intel 32-bit</li> <li>• Windows x86 32-bit</li> <li>• Windows x64 32-bit</li> <li>• Windows x64 64-bit</li> </ul>
OLE DB by Sybase	15.7, 15.5.x	<ul style="list-style-type: none"> <li>• Windows x86 32-bit</li> <li>• Windows x64 32-bit</li> <li>• Windows x64 64-bit</li> </ul>
ADO.NET	2.x, 4.x	<ul style="list-style-type: none"> <li>• Windows x86 32-bit</li> <li>• Windows x64 32-bit</li> <li>• Windows x64 64-bit</li> </ul>



Client Name	Version	Supported Platform
Replication Server®	15.5, 15.6	<ul style="list-style-type: none"> <li>• IBM AIX POWER 64-bit</li> <li>• HP-UX IA 64-bit</li> <li>• Linux x86 32-bit</li> <li>• Linux x86-64 64-bit</li> <li>• Linux on POWER 64-bit</li> <li>• Sun Solaris SPARC 64-bit</li> <li>• Sun Solaris x86-64 64-bit</li> <li>• Microsoft Windows x86 32-bit</li> <li>• Microsoft Windows x86-64 64-bit</li> </ul>
	15.2	<ul style="list-style-type: none"> <li>• IBM AIX POWER 32-bit</li> <li>• IBM AIX POWER 64-bit</li> <li>• HP-UX IA 64-bit</li> <li>• Linux x86 32-bit</li> <li>• Linux x86 64-bit</li> <li>• Linux on POWER 64-bit</li> <li>• Sun Solaris SPARC 32-bit</li> <li>• Sun Solaris SPARC 64-bit</li> <li>• Microsoft Windows x86 32-bit</li> <li>• Microsoft Windows x86 64-bit</li> </ul>

---

**Note:** Adaptive Server is supported on Sybase Control Center 3.2.7.

---

## Product Compatibility

---

Learn about Adaptive Server compatibility.

### Password Compatibility with Replication Server

There are some compatibility issues with replicating logins and roles between different versions of Adaptive Server.

You can replicate logins from Adaptive Server version 15.0.2 and later to earlier server versions only during the password downgrade period when **allow password downgrade** is set to 1.

You cannot replicate roles with passwords from Adaptive Server 15.7 and later to earlier server versions.

## **Changes That Affect Existing Applications**

---

Learn about changes in Adaptive Server 15.7 that affect your existing applications.

### **Changes to Sybase Central**

Sybase Central ASE plug-in is no longer included in the Adaptive Server installation image. Use Sybase Control Center 3.2.7 to manage your Adaptive 15.7 ESD#2 servers.

Sybase no longer maintains Sybase Central. However, if required, you can download Sybase Central Plug-ins by going to the <http://www.sybase.com/downloads> site, then clicking on **Maintenance Releases and Bug Fixes (EFBs)**.

### **Backup Server and IBM Tivoli Storage Manager**

Use a local backup server for dump and load to the IBM Tivoli Storage Manager; you cannot use a remote backup server.

You can configure the IBM Tivoli Storage Manager on a different host machine than the local backup server.

### **Open Client and Open Server**

For information about changes that affect Open Client and Open Server, see the most recent release bulletins for these products on the Sybase Web site.

For information about new features, see the *New Features Bulletin Open Server 15.7 and SDK 15.7 for Windows, Linux, and UNIX*.

### **Adaptive Server Extension Modules and Drivers**

The extension modules for PHP and Python, and the database driver for Perl, allow developers to execute queries against an Adaptive Server database.

For information about the PHP and Python extension modules and the database driver for Perl, see:

- *Adaptive Server Enterprise Extension Module for Python Programmers Guide*
- *Adaptive Server Enterprise Extension Module for PHP Programmers Guide*
- *Adaptive Server Enterprise Database Driver for Perl Programmers Guide*

For installation instructions, see the *Software Developers Kit and Open Server Installation Guide*.

## Command Line Version of ddlgen

The location of the command-line version of **ddlgen** has been changed.

In Adaptive Server versions 15.7 ESD #1 and earlier, the command-line version of **ddlgen** was located in:

- Unix - \$SYBASE/ASEP/bin
- Windows - %SYBASE%\ASEP\bin

In Adaptive Server version 15.7 ESD #2 and later, **ddlgen** is located in:

- Unix - \$SYBASE/ASE-15\_0/bin
- Windows - %SYBASE%\ASE-15\_0\bin

## Changed Functionality

---

Learn about late-breaking functionality changes in Adaptive Server version 15.7.

For detailed information, see the *Clusters Users Guide*.

## Support for db2 Server Class

Adaptive Server does not support server class db2.

To use **db2**, migrate your **db2** server class to **direct\_connect** class.

## Change to kill command in clustered environments

In Adaptive Server Cluster Edition version 15.5 ESD #2 and later, a privileged Kerberos user can use the **kill** command to kill a database task on a remote instance.

## Unsupported Features and Utilities

---

Learn about features that are not supported in the Cluster Edition.

These utility programs are not supported, or have minimum support:

- **sqlupgrade**
- **sqlloc**
- **srvbuild**

These Adaptive Server features are not supported:

- In-memory databases introduced in Adaptive Server 15.5.
- Adaptive Server disk mirroring.

## Product Summary

- High-availability. In the Cluster Edition, high-availability functionality is integrated into Adaptive Server.
- Maximum number of instances supported. The Cluster Edition architecture provides for up to 32 instances in a cluster. However, Cluster Edition 15.5 and later is currently certified for, and supported on, 4 instances only.

These Replication features are not supported:

- Multi-Path Replication™
- Metadata reduction
- Repdef elimination
- In-row LOB replication
- Replication of compressed data
- Replication using ASE Replicator

---

**Note:** The ASE-15\_0/bin directory includes a utility called **iofenceutil**, which duplicates the functionality of **qrmutil --fence\_capable**, but does not require the quorum device, and also returns an exit code. This is an internal utility used by **sybcluster** and is not designed for regular use.

---

## Replication Management Support for Granular Permissions

Granular permission features are not supported for replication management.

Granular permissions, which allows you to construct site-specific roles or restrict system administrators and database owners from accessing user data, have been introduced in Adaptive Server 15.7 ESD #2. Granular permissions is currently not supported by Replication Server, or supported in following related system stored procedures:

- **sp\_config\_rep\_agent**
- **sp\_help\_rep\_agent**
- **sp\_reptostandby**
- **sp\_setrep**
- **sp\_start\_rep\_agent**
- **sp\_stop\_rep\_agent**
- **sp\_setrepcol**
- **sp\_setrepdb**
- **sp\_setrepdbmode**
- **sp\_setrepdefmode**
- **sp\_setreplicate**
- **sp\_setrepproc**
- **sp\_setreptable**

## Plan Sharing Recommendations for 15.7 ESD #2 SAP ERP Customers

---

Disabling the plan sharing feature in Adaptive Server 15.7 ESD #2 for SAP® ERP Customers.

The plan sharing feature is disabled by default. It is automatically enabled when the configuration option **enable functionality group** is turned on. Sybase recommends disabling the plan sharing feature until the next version update is issued. For SAP ERP installation, where **enable functionality group** is on, the "Plan Sharing" feature can be turned off by using the following:

```
sp_configure 'enable plan sharing', 0
```

## Installation and Configuration

Get last-minute information about installation, configuration, and upgrading and downgrading that was omitted from your installation guide, or that needs special emphasis.

Sybase strongly recommends that you install the Adaptive Server Enterprise Cluster Edition into its own directory. If you cannot do this, install the Cluster Edition last.

---

**Warning!** Sybase recommends that you do not install an older version of a Sybase product in a \$SYBASE directory that includes a newer Sybase product. For example, installing Replication Server® 15.0 on top of the Cluster Edition may make either the Cluster Edition or Replication Server inoperable, depending on the choices you select during installation.

---

## Special Installation Instructions

---

Learn about special installation instructions for this version of Adaptive Server.

### *Installing the ASE Plug-in*

Before installing the ASE Plug-in on top of Adaptive Server, shut down the Adaptive Server. If you do not shut down the server, the installation will fail. The entry in the log file states that a problem occurred while attempting to overwrite a JRE 7 file because the file is open.

### *Installing PC-client*

When running **autorun** to install PC-client, an error is raised stating that you are installing a 64-bit pc-client in a location that has 32-bit pc-client. To workaround this issue, run **setup.exe** from within the **pcclient32** subdirectory to install PC-client.

### *Installing Adaptive Server Plug-ins*

Install Adaptive Server and all associated plug-ins in the same location.

### *Amendments to the response file for silent installation*

For Adaptive Server 15.7 ESD#2, the installer requires non-NULL passwords that are at least six characters long for the Adaptive Server sa login, and the Sybase Control Center logins uafadmin and sccadmin.

To perform a silent Adaptive Server installation using a response file, the response file should have the following additional rows:

```
SY_CFG_ASE_PASSWORD=<ASE sa password>
```

```
CONFIG_SCC_CSI_SCCADMIN_PWD=<Sybase Control Center admin password>
```

```
CONFIG_SCC_CSI_UAFADMIN_PWD=<Sybase Control Center agent admin password>
```

The passwords for sccadmin and uafadmin logins need not be the same as the password for sa login.

### *Installing Enterprise Connect Data Access (ECDA) or MainframeConnect DirectConnect for z/OS with Other Sybase Software*

Sybase strongly recommends you install the ECDA DirectConnect option or MainframeConnect™ DirectConnect™ for z/OS, including DirectConnect Manager, into its own directory.

### *Installing Adaptive Server Enterprise Cluster Edition with Sybase IQ 15.1*

Sybase recommends that you not install Sybase IQ™ 15.1 in a directory that includes the Cluster Edition.

### **See also**

- *Downloading Sybase EBFs and Maintenance Reports* on page 26

## **Special Configuration Instructions**

---

Special configuration instructions for this version of Adaptive Server.

### **Configure Adaptive Server for Clients Using EPEP Algorithm**

An Adaptive Server can be configured to require the Extended Plus Encrypted Password (EPEP) login protocol using **sp\_configure**.

An additional value has been added to **sp\_configure 'net password encryption reqd'** to indicate that the server should only allow incoming clients using EPEP algorithm.

The configuration parameter **net password encryption reqd** supports a value of 3, which indicates the server should only allow incoming clients that are using EPEP login protocol. The values 0, 1, and 2 will also allow EPEP login protocol to be used when a client that supports the login protocol attempts to use it with an Adaptive Server that implements the EPEP login protocol.

Setting the value to 2 or 3 increases network memory in order to support the maximum configured connections using this protocol. The **additional network memory** configuration parameter is used to dynamically add more memory to the network memory pool used by EPEP. When the value is set to 3, the KPP Handler goes into sleep status. This is because there is no need to provide new RSA key pair for every connection. You can use the **sp\_who** command to check the KPP Handler status.

---

**Note:** Adaptive Server supports two versions of the login protocol using RSA asymmetric encryption. See "Securing login passwords on the network" in the *Security Administration Guide* for more information.

---

## Special Upgrade and Downgrade Instructions

Get last-minute instructions for upgrading, downgrading, and migrating different versions of Adaptive Server.

### Special Downgrade Instructions

Learn about special downgrading instructions for this version of Adaptive Server.

*Use **sp\_downgrade\_esd** to downgrade from Adaptive Server 15.7 ESD #2 to either 15.7 or 15.7 ESD#1*

If you are downgrading from Adaptive Server 15.7 ESD #2 to either 15.7 or 15.7 ESD #1, do not use the **sp\_downgrade** system procedure. Instead, use **sp\_downgrade\_esd** to downgrade both Adaptive Server, as well as any databases you may have upgraded to 15.7 ESD #2. See *Downgrading to an Earlier Version of Adaptive Server 15.7* in the installation guide for your platform.

***sp\_downgrade\_esd** does not check tables which are configured for in-row LOB compression*

When downgrade from Adaptive Server 15.7 ESD #2 to either 15.7 ESD #1 or 15.7, **sp\_downgrade\_esd** does not check tables when data compression and LOB compression is enabled for tables with in-row LOB column .

**Workaround:** Manually run the following query on each database to check for in-row LOB compressed tables. This query reports table names configured for in-row LOB compression.

```
select distinct convert(varchar(39), o.name) as 'check these tables'
from syscolumns c, sysobjects o, syspartitions p
where o.id = c.id and o.id = p.id
```

## Installation and Configuration

```
and (o.sysstat3 & 28672 != 0
      or (p.ptndcompver is not null and p.ptndcompver > 0))
and ((c.lobcomp_lvl is not null and c.status2 & 131072 = 0)
      or ((o.lobcomp_lvl is not null and o.lobcomp_lvl > 0)
          or (o.sysstat3 & 2048 != 0))
      or (p.lobcomp_lvl is not null and p.lobcomp_lvl > 0))
and (c.inrowlen is not null) and (c.inrowlen > 0)
go
```

---

**Note:** The correct procedure to downgrade in-row LOB compressed tables is to **set compression = none** using **alter table** and run **reorg rebuild** for each table before downgrade.

---

### *Downgrading Cluster Edition from 15.7 ESD #2 to ESD #1 with sybcluster*

Use the following step to downgrade Cluster Edition 15.7 ESD #2 to ESD #1 using sybcluster:

1. Backup \$\$SYBASE for 15.7 ESD #2.
2. Restart the cluster in single user mode.
3. Run **sp\_downgrade\_esd** on each database.
4. Install 15.7 ESD #1 on top of the current \$\$SYBASE.

---

**Note:** Do not configure SCC from the installer.

---

5. Replace SCC-3\_2 from the backup copy of 15.7 ESD #2 \$\$SYBASE.

---

**Note:** This allows you to keep the 15.7 ESD #2 version of SCC for use after the downgrade.

---

6. Replace SDCADMIN-15\_0 from the backup copy of 15.7 ESD #2 \$\$SYBASE.  
This allows you to keep the 15.7 ESD #2 version of sybcluster for use after the downgrade.
7. Start the SCC agent on each node.
8. Run sybcluster and execute **start instance <instance 1>** to bring up the first instance.
9. Run installmaster on the first instance.
10. Run sybcluster and execute **shutdown cluster**.
11. Run subcluster and execute **start cluster**.

## Loading Database Dumps into Earlier Versions

You cannot dump a database on this version of Adaptive Server and then load this dump into a database on a server running an earlier (15.x) version of Adaptive.

## TIPSA Flag 0x4000 Error After Upgrade

The flag 0x4000 in TIPSA is set in Adaptive Server versions earlier than 15.7. This flag can cause unexpected errors after an upgrade to Adaptive Server 15.7.

The TIPSA 0x4000 flag is used by the LOB compression feature in Adaptive Server 15.7. After an upgrade to Adaptive Server 15.7, a LOB column with this flag set will be mistakenly treated as a compressed LOB column, which will result in unexpected errors. Use the following command to correct the flag issue after an upgrade to Adaptive Server 15.7.

```
dbcc rebuild_text()
```



## Known Installation Issues for Adaptive Server Cluster Edition

---

Learn about known installer issues and workarounds. Known issues are listed in descending order of Change Request (CR) numbers.

CR #	Description
709431	<p><b>SAMPLE_RS cannot be created after RS 15.7.1 installed upon ASE 15.7 ESD#2</b></p> <p>When Adaptive Server 15.7 ESD #2 and Replication Server 15.7.1 are installed in the same directory, the creation of a sample Replication Server will fail.</p> <p><b>Workaround:</b> Do not install Replication Server and Adaptive Server in the same directory.</p>
706268	<p><b>RMP cannot be loaded after Adaptive Server 15.7 ESD #2 is installed upon RMP 15.7.1</b></p> <p>When Adaptive Server is installed upon RMP 15.7.1, an error is produced when starting Sybase Central indicating that RMP has not been started properly and cannot be loaded.</p> <p><b>Workaround:</b> Unset the SYBASE_JRE7 environment variable that is set in SYBASE {csh   env   sh} file before starting Sybase Central:</p> <p>For C-Shell (SYBASE.csh): unsetenv SYBASE_JRE7</p> <p>For Bourne Shell (SYBASE.sh):</p> <pre>SYBASE_JRE7= export SYBASE_JRE7</pre> <p>For Bash(?) Shell (SYBASE.env): SYBASE_JRE7=.</p>
692496	<p><b>Configuring tempdb device for HA</b></p> <p>When installing an Adaptive Server to be used in an HA configuration, the <b>sp_companion</b> stored procedure <b>configure</b> command may fail due to duplicate device names for the tempdbdev logical device.</p> <p><b>Workaround:</b> Do not specify the "Tempdb Device" (set the value of this field to blank) when configuring the secondary server during ASE installation.</p> <ul style="list-style-type: none"> <li>• If additional tempdb space is required on either server, log into this server after installation is complete and use the alter database command to increase the size of tempdb.</li> <li>• If additional disk space is required to allocate the tempdb database, use the disk init command to create a new database device for tempdb.</li> <li>• If a new device is created, the logical device name should be unique between the two servers.</li> </ul>

CR #	Description
<p><b>688101</b></p>	<p><b>Cannot start Sybase Central for Sybase IQ 15.4 after uninstalling Adaptive Server 15.7.</b></p> <p>If you install Adaptive Server Enterprise 15.7 and Sybase IQ 15.4 in the same directory, and then uninstall Adaptive Server, you cannot then start Sybase Central for IQ. This problem occurs because shared files are removed by Adaptive Server uninstaller.</p> <p><b>Workaround:</b> Use the following workaround if the version of Sybase Central installed with IQ 15.4 cannot be started after you uninstall Adaptive Server 15.7:</p> <ol style="list-style-type: none"> <li>1. Recreate the \$\$SYBASE/shared/JavaHelp-2_0 directory JavaHelp-2_0, if necessary.</li> <li>2. Copy the \$\$SYBASE/IQ-15_4/java/jh.jar file to the \$\$SYBASE/shared/JavaHelp-2_0 directory.</li> <li>3. Reload or register the IQ plugin in SC, if necessary.</li> </ol>
<p><b>683486</b></p>	<p><b>Cannot use DBISQL from Sybase Central after installing RMP 15.2 and RMP 15.7. on top of Adaptive Server 15.7.</b></p> <p><b>Workaround:</b> To enable DBISQL to launch, add the following into <code>scjview.sh java</code> arguments.</p> <pre>-Disql.repositoryDirectory= "\$SYBROOT/DBISQL/bin"</pre> <hr/> <p><b>Note:</b> In some cases single quotes are used to enclose the directory path. Check the existing file to determine whether to use single or double quotes.</p>
<p><b>678912</b></p>	<p><b>Cannot use DBISQL from Sybase Central after installing RMP on top of Adaptive Server 15.7.</b></p> <p><b>Workaround:</b> To enable DBISQL to launch, add the following into <code>scjview.sh java</code> arguments.</p> <pre>-Disql.repositoryDirectory= '\$SYBROOT/DBISQL/bin'</pre>
<p><b>671351</b></p>	<p><b>Installing Adaptive Server 15.7 on top of Replication Agent™ 15.2 causes SySAM errors.</b></p> <p><b>Workaround:</b> Before installing Adaptive Server 15.7, modify the SySAM file permissions to include write permissions.</p>

CR #	Description
611780	<p><b>Installing Adaptive Server 15.5 Cluster Edition in the same directory as ECDA 15.0 ESD #2 and earlier versions results in errors.</b></p> <p>The Unified Agent does not start after this installation; and you cannot create a cluster from Sybase Central.</p> <p><b>Workaround:</b> Sybase strongly recommends that you install the Adaptive Server Enterprise 15.5 Cluster Edition into its own directory. If you must install Adaptive Server 15.5 Cluster Edition in the same directory as ECDA 15.0, then:</p> <ul style="list-style-type: none"> <li>• If you have installed ECDA 15.0 ESD #3 , you can install Adaptive Server 15.5 Cluster Edition on top of the ECDA installation.</li> <li>• If you have an ECDA installation that is version 15.0 ESD #2 or earlier, you must: <ul style="list-style-type: none"> <li>• Uninstall the older ECDA version.</li> <li>• Delete the \$SYBASE/ua directory.</li> <li>• Install Adaptive Server 15.5 Cluster Edition.</li> </ul> </li> </ul>
592553	<p><b>On Linux, to run the installer in Chinese, Japanese, or Korean, you must install one of these RPM packages:.</b></p> <ul style="list-style-type: none"> <li>• RedHat 5.x: <ul style="list-style-type: none"> <li>• fonts-chinese</li> <li>• fonts-japanese</li> <li>• fonts-korean</li> </ul> </li> <li>• SuSE 10.x: <ul style="list-style-type: none"> <li>• ttf-founder-traditional (Traditional Chinese)</li> <li>• sazanami-fonts (Japanese)</li> <li>• baekmuk-ttf (Korean)</li> </ul> </li> </ul>
590282	<p><b>You cannot use the tab and arrow keys to navigate the Choose Product Features pane of the installation or uninstallation program.</b></p> <p><b>Workaround:</b> Use the mouse to click in the Install or Uninstall window. This sets the focus on the window and allows you to navigate using your keyboard.</p>

CR #	Description
589483	<p><b>If the <code>df</code> command stops responding, the installation stops responding before the pre-installation summary pane appears.</b></p> <p><b>Workaround:</b></p> <ol style="list-style-type: none"> <li>1. Identify the network file system (NFS) mounts that may have problems:  <pre>strace -e statfs, statfs64 df</pre> </li> <li>2. Use the <b>umount</b> command to unmount an identified NFS mount:  <pre>umount -l &lt;path&gt;</pre> </li> <li>3. Repeat the above steps until there are no more NFS mounts that have stopped responding.</li> </ol> <p>The <b>umount</b> command requires <b>root</b> permission. If the <b>umount</b> command unmounts the NFS, you may have to restart your machine.</p>
588793	<p><b>Installing Adaptive Server 15.5 and later versions that use Install Anywhere on older directories that have been installed with InstallShield Multiplatform can lead to incompatibility issues.</b></p> <p>These issues occur while using products installed with different installer technologies:</p> <ul style="list-style-type: none"> <li>• If you install products using Install Anywhere or InstallShield Multiplatform on top of a product installed using the other installer, the same files included in both installers are silently overwritten by the later installation.</li> <li>• If you run either the Install Anywhere or InstallShield Multiplatform <b>uninstaller</b>, the same files installed by both installers are removed without any indicating messages.</li> </ul> <p><b>Workaround:</b> Do not install products that use Install Anywhere and products that use InstallShield Multiplatform in the same directory.</p>
586169	<p><b>gzip must be installed on the machine for installer to succeed.</b></p> <p>The installer reports:</p> <pre>gzip: Not Found</pre> <p><b>Workaround:</b> Install <b>gzip</b> on your machine and make sure it is included in the path.</p>
583979	<p><b>The installer does not validate feature names specified in the response file when you install in silent mode.</b></p> <p><b>Workaround:</b> Ensure that the specified feature names are correct.</p>

# Known Plug-In Issues for Adaptive Server Cluster Edition

Learn about known issues and workarounds for Interactive SQL and the Adaptive Server Enterprise plug-in. Known issues are listed in descending order of Change Request (CR) numbers.

CR#	Description and Workaround
713282	<p>Refresh of SCC instance deletes the ASE CE plug-in</p> <p>When you run the following command, <b>SYBASE/SCC-3_2/bin/sccinstance -refresh</b> to refresh Sybase Control Center instances, the Adaptive Server Cluster Agent Plug-in files, <code>\$SYBASE/SCC-3_2/instances/SCC_instance/plugins/cluster_name</code> are deleted.</p> <p><b>Workaround:</b> Backup the <code>\$SYBASE/SCC-3_2/instances/SCC_instance_name/plugins/cluster_name</code> directory before you run <b>\$SYBASE/SCC-3_2/bin/sccinstance -refresh</b>.</p> <hr/> <p><b>Note:</b> Do not copy or backup the files to the same directory.</p> <hr/> <p>After running <b>\$SYBASE/SCC-3_2/bin/sccinstance -refresh</b>, restore the backup files, and then copy following files:</p> <ol style="list-style-type: none"> <li>1. Copy <code>\$SYBASE/SCC-3_2/templates/plugins/com.sybase.ase.cluster/15.0.1/lib/*</code> to <code>\$SYBASE/SCC-3_2/instances/SCC_instance_name/plugins/cluster_name/lib</code>.</li> <li>2. Copy <code>\$SYBASE/SCC-3_2/templates/plugins/com.sybase.ase.cluster/15.0.1/ar1.xml</code> to <code>\$SYBASE/SCC-3_2/instances/SCC_instance_name/plugins/cluster_name/ar1.xml</code></li> <li>3. Copy <code>\$SYBASE/SCC-3_2/templates/plugins/com.sybase.ase.cluster/15.0.1/mbean-descriptor.xml</code> to <code>\$SYBASE/SCC-3_2/instances/SCC_instance_name/plugins/cluster_name/mbean-descriptor.xml</code></li> </ol>

CR#	Description and Workaround
709646	<p><b>Unable to authenticate SCC agents</b></p> <p>Due to security service changes in SCC 3.2.7, the following related features in Adaptive Server Plug-in have been removed:</p> <ul style="list-style-type: none"> <li>• Adaptive Server to Unified Agent role mappings on the <b>Roles Folder</b> and <b>Role Properties</b> windows.</li> <li>• Unified Agent operations and attributes on the <b>Server and ASE Plug-in Properties</b> windows (<b>Show agent attributes and operations</b> check box on the <b>Preferences</b> page).</li> <li>• <b>Authentication</b> and <b>Security Modules</b> on the <b>Server Properties Agent</b> page.</li> </ul>
693548	<p><b>A new cluster cannot be agent enabled.</b></p> <p>After creating a cluster using the ASE plug-in, the cluster does not appear as agent enabled.</p> <p><b>Workaround:</b> Shut down and restart the ASE plug-in.</p>

## Known Issues for Adaptive Server Cluster Edition

Learn about known issues and apply workarounds for Adaptive Server Cluster Edition. Known issues are listed in descending order of Change Request (CR) numbers.

Sybase does not include system problem reports (SPRs) and closed problem reports (CPRs) with Adaptive Server Enterprise. You can search the Web site for solved cases. Click **Support > Services > Solved Cases**.

CR #	Description
714061	<p><b>The <i>forwrowcnt</i> column in the <i>systabstats</i> table does not change after running online reorg rebuild</b></p> <p>The number of forwarded rows in the <i>forwrowcnt</i> column of the <i>systabstats</i> table does not zero out after running the <b>online reorg rebuild</b> command.</p> <p><b>Workaround:</b> Run <b>update statistics</b> on the table after running <b>online reorg rebuild</b>.</p>

CR #	Description
713855	<p data-bbox="323 215 1188 267"><b>An exception is raised when migrating from Adaptive Server versions, 12.5.4 through 15.0 to version 15.7 ESD #2 using sybmigrate</b></p> <p data-bbox="323 284 1188 336">An exception is raised due to inconsistencies between roles that exist in the sysusers table of the source server and the roles that exist in the sysusers table of the target server.</p> <p data-bbox="323 354 462 380"><b>Workaround:</b></p> <ol data-bbox="323 406 1188 692" style="list-style-type: none"> <li data-bbox="323 406 1188 493">1. In the source and target server, run the query:  <pre data-bbox="360 440 1116 493">select u.* from sysusers u, sysssrvroles r where u.name = r.name and r.srid &lt; 31 order by u.uid</pre> </li> <li data-bbox="323 510 1188 536">2. Compare the results of the above query retrieved from the source and target servers.</li> <li data-bbox="323 545 1188 623">3. In source server, insert rows returned from the query into master.dbo.sysusers table. These rows contain server roles that exist in target sysusers table and do not exist in the source sysusers table.</li> <li data-bbox="323 631 713 657">4. Run <code>sybmigrate -m setup</code></li> <li data-bbox="323 666 1161 692">5. Delete the same rows that you inserted in step 3 from source's master.dbo.sysusers.</li> </ol> <p data-bbox="323 718 1188 744">For example, when migrating from Adaptive Server 15.0 to Adaptive Server 15.7 ESD #2.</p> <ol data-bbox="323 770 1188 1395" style="list-style-type: none"> <li data-bbox="323 770 1188 918">1. Run the following query in the source and target servers:  <pre data-bbox="360 796 1116 848">select u.* from sysusers u, sysssrvroles r where u.name = r.name and r.srid &lt; 31 order by u.uid</pre> Your query shows you need to insert one row (-2, 16398, 16398, 'keycustodian_role', NULL) into the source master.dbo.sysusers table. </li> <li data-bbox="323 927 1188 1152">2. Run the following SQL in the source server:  <pre data-bbox="360 961 1188 1152">use master exec sp_configure 'allow updates to system tables' 1 insert sysusers values(-2, 16398, 16398, 'keycustodian_role', NULL) exec sp_configure 'allow updates to system tables', 0</pre> </li> <li data-bbox="323 1170 713 1196">3. Run <code>sybmigrate -m setup</code></li> <li data-bbox="323 1204 1188 1395">4. Run the following SQL in the source server:  <pre data-bbox="360 1239 1188 1395">use master exec sp_configure 'allow updates to system tables' 1 delete sysusers where name = 'keycustodian_role' exec sp_configure 'allow updates to system tables', 0</pre> </li> </ol>

CR #	Description
713631	<p><b>Create index in parallel with descending keys may fail with error 832</b></p> <p>In some cases, when the creation of an index in parallel mode using the <b>WITH CONSUMERS=<i>number</i></b> option is executed, and the configuration parameter <b>enable functionality group</b> is on, Adaptive Server may generate the following error:</p> <p>Error 832: Unable to place buffer 0x4e498f68 holding logical page 2344 in sdes for object &lt;table name&gt; - there is no room in sdes aux keep pool.</p> <p>The following is an example of a command that may generate the error message:</p> <pre>1&gt; create index ind on tab(a desc,b, c) with consumers = 3 2&gt; go</pre> <p><b>Workaround:</b> This is an internal error that does not lead to data corruption. Traceflag 549 could be used to avoid running into this error.</p>
713464	<p><b>Create index in parallel with descending keys may fail with error 1503</b></p> <p>In some cases, when the creation of an index in parallel mode using the <b>WITH CONSUMERS=<i>number</i></b> option is executed, and the configuration parameter <b>enable functionality group</b> is on, Adaptive Server may generate the following error:</p> <p>Msg 1503, Level 20, State 2: Line 1: Sort Internal Error:</p> <p>The Root page of right/left sub-index tree is missing. Command has been aborted.</p> <p>The following is an example of a command that may generate the error message:</p> <pre>1&gt; create index ind on tab(a desc,b, c) with consumers = 3 2&gt; go</pre> <p><b>Workaround:</b> This is an internal error that does not lead to data corruption. Traceflag 549 could be used to avoid running into this error.</p>
713189	<p><b>Using sybcluster to add an instance from an XML input file fails</b></p> <p>When configuring an auxiliary server (xpserver or backupserver) in an Adaptive Cluster, an input error is raised when using an XML input file to add an instance from the <b>sybcluster</b> tool. The input error is raised when attempting to validate the XML input file.</p> <p><b>Workaround:</b> Use interactive mode to add a new instance to a cluster using <b>sybcluster</b> when configuring an auxiliary server for a cluster server.</p>



CR #	Description
712783	<p><b>The same row is returned by multiple queries on MDA FDP tables in Cluster Edition</b></p> <p>When queries are executed on the Monitoring and Diagnostic FDP tables in an Adaptive Server Cluster Edition server, the same row may be returned in multiple result sets.</p> <p><b>Workaround:</b> None.</p>
711328	<p><b>Using sybcluster to add an instance in interactive mode fails</b></p> <p>When using interactive mode, adding an instance on a new node of an existing cluster will cause an infinite loop when entered on a new tempdb device. The infinite loop is a prompt to enter a tempdb device path.</p> <p><b>Workaround:</b> Exit the session and restart <b>sybcluster</b>. To add the instance, enter "Y" to reuse the Cluster Agent plugin at the <b>sybcluster</b> prompt.</p>
696072	<p><b>In some Cluster Edition configurations, Adaptive Server 624 and 69x errors may occur in rare circumstances during database replication of a database or replication of tables within a database.</b></p> <p>In active-active or active-passive cluster configurations, you can configure RepAgent to run on only one node of the cluster. These errors may occur in rare circumstances when RepAgent reads an older image of database log pages that is on disk while the latest image is on another node.</p> <p><b>Workaround:</b> Sybase recommends that for:</p> <ul style="list-style-type: none"> <li>• Active-passive configuration – run RepAgent on the active node to ensure that data and log pages are on the same node as RepAgent.</li> <li>• Active-active configuration – start Adaptive Server with the 16872 trace flag to prevent log page corruption and 69x errors. However, using this flag degrades the server performance.</li> </ul>
695625	<p><b>This message is reported by Open Client applications connecting to Adaptive Server Enterprise:</b></p> <pre>ct_send(): network packet layer: internal Client Library error: State error: trying to write when connection is expecting a read.</pre> <p>This message is reported in some cases when Kerberos message confidentiality service is turned on.</p> <p><b>Workaround:</b> Reconnect to the server with confidentiality service turned off.</p>

CR #	Description
694912	<p><b>The sybcluster localize utility does not function properly and exceptions are raised.</b></p> <p>If the \$SYBASE/SYBASE_ASE/locales directory contains files or directories that are not server-related locales files, the sybcluster localize utility does not function properly. If unrelated files are in the locales directory, the localize command aborts and raises an exception at the beginning phase. If an unrelated directory is in the locales directory, the charset selection menu is shown incorrectly and localize may abort during further processing.</p> <p><b>Workaround:</b> Do not place files or directories unrelated to localization in the \$SYBASE/SYBASE_ASE/locales directory.</p>
684556	<p><b>\ The select for update semantics introduced in version 15.7 do not support datapages-locked tables.</b></p> <p><b>select for update</b> support exists only for datarows-locked pages.</p>
680041	<p><b>The value of the server network name as defined by the srvnetname column for a loopback server must be the name of the cluster.</b></p> <p>For the <b>sp_opt_querystats</b> stored procedure to succeed, the value of the srvnetname column for a loopback remote server must be the name of a cluster in the cluster interfaces file and not the name of a cluster instance.</p> <p><b>Workaround:</b> Make sure that the srvnetname column for the loopback remote server is the name of the cluster.</p>
627114	<p><b>On Linux RHEL 5, not all of shared memory is released when hugepages are in use.</b></p> <p>Due to Linux kernel bug, Adaptive Server configured with hugepages on Linux has memory leaks when shutdown an Adaptive Server. <a href="https://bugzilla.redhat.com/show_bug.cgi?id=593131">https://bugzilla.redhat.com/show_bug.cgi?id=593131</a>.</p> <p><b>Workaround:</b> Install Linux kernel patch for this bug to resolve the memory leak.</p>
615204	<p><b>If enable DTM is set, the distributed recovery feature is disabled and all databases are recovered only on the cluster coordinator, rather than on different instances of the cluster.</b></p> <p><b>Workaround:</b> None.</p>
595923	<p><b>There are two known issues with transfer table:</b></p> <ul style="list-style-type: none"> <li>• When creating a unique index that is using the <b>ignore_dup_key</b> property, importing a row with a key that is already present in the table leads to an error, and the import is aborted. This differs from when a duplicate key is inserted with <b>bcp</b> or with a regular <b>insert</b> statement, since in those cases, the row is discarded, and the transaction continues.</li> <li>• When an <b>insert</b> trigger exists, the trigger is not fired when data is inserted through <b>transfer table...from</b>.</li> </ul> <p><b>Workaround:</b> None.</p>

CR #	Description
578921	<p><b>On Linux SUSE Enterprise 11 systems, configuring an Adaptive Server fails with SEGV while retrieving user ID and password from Network Information Service (NIS).</b></p> <p>While creating the PCA-JVM, Adaptive Server can retrieve ID and password information using Network Security Services (NSS), but not NIS.</p> <p><b>Workaround:</b> Use either of these:</p> <ul style="list-style-type: none"> <li>• In <code>/etc/nssswitch.conf</code>, specify the retrieval order to be either "compat" or "files NIS."</li> <li>• Add the ID and password for the user starting the Adaptive Server to the local files <code>/etc/passwd</code> and <code>/etc/shadow</code>. This ensures that the ID and password information is available locally, and that contacting NIS is unnecessary.</li> </ul> <p>If it is impossible to add the user information to local files, ensure that the Name Service Cache Daemon (NSCD) is running on the server host machine. The NSCD maintains a cache of the ID and password information that is consulted prior to dispatching a request to the NIS for this information.</p>
558020	<p><b>dsedit fails with translation table syntax errors.</b></p> <p>When you try to enter a new server entry or a port number, the <b>dsedit</b> utility fails and displays parsing errors similar to:</p> <pre data-bbox="323 855 1171 1107">Warning: translation table syntax error: Unknown keysym name: osfActivate. Warning: ... found while parsing ':&lt;Key&gt;osfActivate: ManagerParentActivate()'. Warning: String to TranslationTable conversion encountered errors. Warning: translation table syntax error: Unknown keysym name: osfBeginLine. Warning: ... found while parsing ':&lt;Key&gt;osfBeginLine: ManagerGadgetTraverseHome()'</pre> <p>These errors indicate that the X-server program that renders graphics is not cached or set up as the default for the environment.</p> <p><b>Workaround:</b> Set the environment variable XKEYSYMDB:</p> <pre data-bbox="323 1251 1042 1274">% setenv XKEYSYMDB "/usr/share/X11/XKeysymDB"</pre>
483651	<p><b>Incorrect cluster failover may occur during diagnostic shared-memory dump.</b></p> <p>If you start an instance while the rest of the cluster is performing a diagnostic shared memory dump, the instance that is starting may incorrectly perform a cluster takeover. This occurs only if <b>automatic cluster takeover</b> is set to 1, or if the <code>--cluster_takeover</code> option is passed to the data server. In environments without <b>i/o fencing</b> enabled, this may lead to data corruption.</p> <p><b>Workaround:</b> Do not start an instance during a diagnostic shared-memory dump. Configure <b>automatic cluster takeover</b> to 0.</p>

CR #	Description
478875	<p><b>In the Adaptive Server plug-in, you cannot drop a connected instance; your connection is lost as soon as the instance is shut down.</b></p> <p><b>Workaround:</b> Before shutting down the instance to drop, connect to another instance in the cluster.</p>

## Documentation Updates

Read about updates, corrections, and clarifications to the documentation released with Adaptive Server Cluster Edition.

- New Feature Guide, Version 15.7, ESD #2, Hash-Based Update Statistics  
The New Feature Guide describes the **update statistics** configuration parameter **hashing** which enables Adaptive Server to gather hash-based statistics. The range of values for the **hashing** option are:

- off – no hashing
- on – hashing on all columns
- partial – hashing only for low unique count columns
- default – off

An example showing that three parameters are required for this option is missing from the documentation.

The following is an example of using **update statistics** using the hashing option:  
`sp_configure 'update statistics hashing', 0, 'on'`

- System Administration Guide – **lock timeout pipe active**  
The default value and the range of values for **lock timeout pipe active**, as described in the Adaptive Server Enterprise 15.7 System Administration Guide are incorrect. The documentation currently states:

Default value 1 (off) Range of values 0 (on), 1 (off)

The correct values are:

Default value 0 (off) Range of values 1 (on), 0 (off)

- System Administration Guide – *Setting the maximum failed logins for specific roles*  
The documentation provides an incorrect example to set the maximum failed logins for a role. The example:

```
create role intern_role with passwd "temp244", maximum failed
logins 20
```

Should be changed to:

```
create role intern_role with passwd "temp244", max failed_logins
20"
```

- System Administration Guide – *Setting the maximum failed logins for specific roles*

The documentation provides an incorrect example to set the maximum failed logins for a role. The example:

```
create role intern_role with passwd "temp244", maximum failed
logins 20
```

Should be changed to:

```
create role intern_role with passwd "temp244", max failed_logins
20"
```

- System Administration Guide – *Changing the maximum failed logins for specific logins*

The documentation provides an incorrect example to to change the maximum failed logins for a login. The example:

```
alter login joe max failed attempts 40
```

Should be changed to:

```
alter login joe modify max failed attempts 40
```

- System Administration Guide – *Changing the maximum failed logins for specific roles*

The documentation provides incorrect examples to remove overrides or change the maximum failed logins for a role. The example to change the maximum failed logins allowed for “physician\_role” to 5, should be:

```
alter role physician_role set max failed_logins 5
```

The example to remove the overrides for the maximum failed logins for all roles should be changed to:

```
alter role "all overrides" set max failed_logins -1
```

- Updates to third-party licensing  
Check the *Free Download Terms* document for recent updates to third-party licensing details. The document is at: [http://www.sybase.com/softwarelicenses/third\\_party\\_legal](http://www.sybase.com/softwarelicenses/third_party_legal).

## 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.

## Obtaining Help and Additional Information

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.

## 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 Sybase 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*.
    - 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](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**.

## 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.

