Release Bulletin
Enterprise Connect™ Data Access 12.6.1
for Microsoft Windows

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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 product release, use the Sybase® Product Manuals Web site.

❖ **Accessing release bulletins at the Sybase Product Manuals Web site**

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

2   Select a product and language and click Go.

3   Select a product version from the Document Set list.

4   Select the Release Bulletins link.

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 names and packaging

Before Sybase introduced Enterprise Connect™ Data Access 12.5, its options were sold as individual DirectConnect™ products named "DirectConnect for [target]." You will see the name "DirectConnect" used in the software and in documents. This document uses the old product names except for the title page. Past and current option names are as follows:

Table 1: DirectConnect and ECDA names

Old product name	Current option name
DirectConnect for DB2 UDB	Enterprise Connect Data Access Option for DB2 UDB
DirectConnect for Informix	Enterprise Connect Data Access Option for Informix
DirectConnect Manager	Part of each Enterprise Connect Data Access Option and still called DC Manager
DirectConnect for Microsoft SQL Server	Enterprise Connect Data Access Option for Microsoft SQL Server
DirectConnect for ODBC	Enterprise Connect Data Access Option for ODBC
DirectConnect for Oracle	Enterprise Connect Data Access Option for Oracle

3. About this release bulletin

This release bulletin contains fixes, enhancements, and known issues for DirectConnect version 12.6.1 for the following products:

• DirectConnect for DB2 UDB

• DirectConnect for Informix

• DirectConnect for Microsoft SQL Server

• DirectConnect for ODBC

• DirectConnect for Oracle

In this release bulletin, any information that is specific to any DirectConnect product is noted.

4. Product summary for version 12.6.1

Enclosed are the DirectConnect version 12.6.1 products that are built on SDK and Open Server™ version 12.5.1.

DirectConnect products are within the Enterprise Connect Data Access product set that provides access to distributed data. For more information, see the Enterprise Connect Data Access *Overview Guide*.

In version 12.6.1, the following DirectConnect products are shipped:

- DirectConnect for DB2 UDB (Supports access to DB2 UDB on z/OS, AS/400, Microsoft Windows, and UNIX platforms.)

- DirectConnect for Informix

- DirectConnect for Microsoft SQL Server

- DirectConnect for ODBC

- DirectConnect for Oracle

Server and client products are distributed on separate CDs.

Note Starting with ECDA 12.6, DirectConnect for AS/400, which provided SNA-based access to DB2 UDB for AS/400, is no longer supported. However, access to DB2 UDB on AS/400 is now provided through TCP/IP with the ECDA Option for DB2 UDB.

4.1 Version contents

DirectConnect 12.6.1 includes the following:

- Program CD-ROMs

- Installation documentation and all product documentation on CD-ROM

- This release bulletin on CD-ROM

The following table shows the contents and product ID numbers for DirectConnect 12.6.1.

Table 2: DirectConnect 12.6.1 product set

Product/Documentation	Media	Product ID
Enterprise Connect Data Access Options for Windows	CD-ROM	CD68123-55-1261-01
DirectConnect Clients	CD-ROM	CD68122-55-1261-01
Sybooks™	CD-ROM	CD30002-55-1260-01
Enterprise Connect Data Access *Installation Guide* for Windows	Sybooks CD-ROM	DC39550-01-1260-01

Product/Documentation	Media	Product ID
Enterprise Connect Data Access and Mainframe Connect™ *Server Administration Guide* for DirectConnect	Sybooks CD-ROM	DC35365-01-1260-01
Enterprise Connect Data Access Options *User's Guide for Access Services*	Sybooks CD-ROM	DC38454-01-1260-01
Enterprise Connect Data Access Option for Oracle *Server Administration and User's Guide*	Sybooks CD-ROM	DC34201-01-1260-01
Release Bulletin Enterprise Connect Data Access for Microsoft Windows	This document	DC74920-01-1261-01

4.2 Hardware and software requirements

Following are system requirements for Windows 2000, Windows 2003, and DirectConnect Manager.

4.2.1 System requirements for Windows 2000 and Windows 2003

Following are minimum system requirements for DirectConnect products for version 12.6.1:

Table 3: DirectConnect system requirements for Windows

Item	Requirements
CPU	Sybase recommends an Intel-compatible processor with a minimum of 500 megahertz.
RAM	512MB of RAM to run Windows 2000 and Windows 2003 for DirectConnect products.
Software	• Microsoft Windows 2000 or Windows 2003. • Microsoft Data Access Component (MDAC) version 2.8 or later. This is required for the DirectConnect server machine and the machine running Adaptive Server®.
Storage	A minimum of 300MB, plus at least 500KB for each *locale* you plan to support.

Note Starting with DirectConnect version 12.6, Sybase no longer supports Microsoft Windows NT.

DataDirect operating system required patch

For DirectConnect for DB2 UDB (AS/400 only): For iSERIES servers running at operating system level 5VR2M0, you need to install the Program Temporary Fix (PTF) SF99502: 520 DB2 UDB for iSERIES.

4.2.2 System requirements for DirectConnect Manager

Following are the minimum system requirements for DirectConnect Manager:

Table 4: DirectConnect Manager system requirements

Item	Requirements
CPU	Microsoft Windows 2000 Service Pack 4 or later, or Microsoft Windows 2003. Sybase recommends a Windows Pentium class processor with a minimum of 300 megahertz.
RAM	Minimum of 256MB.
Storage	Minimum of 75 - 100MB.
Network access	Network access to DirectConnect servers.

5. Special installation and configuration instructions

The following special installation instructions either replace existing documented instructions or are new installation instructions that were created after the release of DirectConnect version 12.6:

• System environment files

• Creating licenses with SySAM 1 or SySAM 2

• Installing DirectConnect 12.6.1 with ASE 15.0

• Installing DirectConnect 12.6.1 with Open Client and Open Server 12.5

• Configuring the data source to connect to targets for DB2 UDB

• Creating, configuring, and modifying 32-bit data sources with Windows 2003 server 64-bit version

• Installing multiple products on the same machine

• Uninstalling from an environment with multiple Sybase products

- Uninstalling from an environment with ECDA Options and DirectConnect for z/OS

Note On Windows, DirectConnect links the Microsoft version of the ODBC Driver Manager. This allows customers to use third party ODBC Drivers with Windows-based DirectConnect and removes customers and Sybase from any ODBC driver vendor restriction.

5.1 System environment files

For 12.6 and later, to allow multiple DirectConnect installations to exist on the same machine, Sybase provides an environment file called *%SYBASE%\DC-12_6\DC_SYBASE.bat*.

Note The *%SYBASE%\SYBASE.bat* environment file is no longer used.

5.2 Creating licenses with SySAM 1 or SySAM 2

To enter licenses for the ECDA products using SySAM 1 or SySAM 2, you must create a SYSAM license file.

❖ **To create a SYSAM license file**

1   Go to the *%SYBASE%\DC-12_6\install\system\sysam_utils* directory, or for Oracle, go to the %SYBASE%*DCO-12_6\install\system\sysam_utils* directory.

2   Run the *dc_lmgr* script.

3   Enter your licenses and click OK.

A license file is created based on one of the following:

- If a *SYSAM-1_0* directory exists in the installation parent directory, a *license.dat* file is created and updated in the *%SYBASE%\SYSAM-1_0 \licenses* directory.

- If a *SYSAM-2_0* directory exists in the installation parent directory, a *SYBASE_DC_License.lic* file is created and updated in the *%SYBASE%\SYSAM-2_0\licenses* directory.

- If both *SYSAM-1_0* and *SYSAM-2_0* directories exist in the parent directory only the *SYSAM-2_0* License file is created or updated.

The following are the locations for the *lmutil* scripts:

- For SySAM 1.0

      ```
      %SYBASE%\SYSAM-1_0\bin
      ```

- For SySAM 2.0

      ```
      %SYBASE%\SYSAM-2_0\bin
      ```

5.3 Installing DirectConnect 12.6.1 with ASE 15.0

When installing DirectConnect 12.6.1and ASE 15.0, Sybase strongly recommends that you install the Enterprise Connect Data Access 12.6.1 options, including DirectConnect Manager, in their own product directory.

Adaptive Server Enterprise 15.0 includes new major versions of ASE and many of the common supporting components shared by other products. All other current Sybase products (for example, Replication Server® 12.6 or Enterprise Connect Data Access 12.6.1) contain earlier versions of those same components. Installing ASE 15.0 into the same directory with existing products should not impact the existing products. However, installing other products after ASE 15.0 may result in one or more products not working correctly. Sybase recommends that you install ASE 15.0 into its own directory, if possible. When ASE cannot installed into a separate directory (for example, on Windows) and when other products must be installed into the same directory, install ASE 15.0 as the last product.

5.4 Installing DirectConnect 12.6.1 with Open Client and Open Server 12.5

If you are installing DirectConnect 12.6.1 into a directory that already has Open Client™ and Open Server™ 12.5 or earlier, you must do one of the following:

- Uninstall Open Client and Open Server before installing DirectConnect 12.6.1,

    or

- Install DirectConnect into a different directory than the directory that contains Open Client and Open Server 12.5.

5.5 Configuring the data source to connect to targets for DB2 UDB

(CR397278) When you configure the data source to connect to targets for DB2 UDB, specify the following parameters in the Modify Binding dialog box during DB2 driver configuration:

- Package Collection – Enter the collection or location name where the driver creates the bind packages and searches for them when required. The default is NULLID.

- Package Owner (optional) – Enter the DB2 AuthID assigned to the package. The DB2AuthID must have authority to execute all SQL commands in the package.

5.6 Creating, configuring, and modifying 32-bit data sources with Windows 2003 server 64-bit version

Windows Server 2003 includes a 64-bit version of the Microsoft ODBC Data Source Administrator, which is the default Administrator application located in the Windows Control Panel under Administrative Tools. Its icon is named Data Sources (ODBC).

The 64-bit ODBC Administrator is named *odbcad32.exe*, and is located in the *%systemroot%\system32* folder in a different directory than the 32-bit.

Note The 64-bit icon and the associated 64-bit ODBC Administrator should not be used for creating or configuring DirectConnect Data Sources.

5.6.1 Creating and configuring 32-bit data sources

In place of the 64-bit version, use the 32-bit ODBC administrator, named *odbcad32.exe*, which is located in the *%systemroot%\SysWOW64* folder.

❖ **To use the 32-bit ODBC Data Source Administrator**

1   Click Start on your desktop.

2   Click Run.

3   In the Open box, enter:

        %systemroot%\SysWOW64\odbcad32

4   Click OK.

> **Note** The 64-bit version of Microsoft ODBC Data Source Administrator must be closed before you can open the 32-bit version. For example, an attempt to execute the 32-bit version while the 64-bit version is running causes the 64-bit version to continue processing and prevents the 32-bit version from opening for administration.

5.6.2 Modifying 32-bit data sources

Under most circumstances, modification of data source entries and driver values is not required. In some instances, such as workaround strings to data sources, a registry string modification is required. The registry in 64-bit versions of Windows is divided into 32-bit and 64-bit keys. The default 64-bit version of Registry Editor (*regedt32.exe*) that is included with 64-bit versions of Windows displays both 64-bit keys and 32-bit keys. It may be used to make modifications to the 32-bit registry key changes required by DirectConnect.

The 32-bit version of Registry Editor may also be used to change the 32-bit keys required by DirectConnect. The 32-bit Registry Editor version named *regedit32.exe*, is located at:

```
%systemroot%\SysWOW64
```

❖ **To use the 32-bit Registry Editor**

1   Click Start on your desktop.

2   Click Run.

3   In the Open box, enter:

```
%systemroot%\SysWOW64\regedit
```

4   Click OK.

The 32-bit registry values used by DirectConnect are located under the 32-bit programs registry key in the directory: *HKEY_LOCAL_MACHINE\Software\ODBC*.

The 64-bit Registry Editor displays the 32-bit registry values used by DirectConnect in the following directory: *HKEY_LOCAL_MACHINE\Software\WOW6432Node*.

5.7 Installing multiple products on the same machine

Following are tasks that you need to perform before you install any Sybase software into a directory in which Sybase software is already installed.

Create a backup
Create a backup of the existing installation directory and, if possible, the environment variable settings and registry.

Overwrite existing files
On all platforms, when you install Sybase products into a directory that contains other Sybase products, the installation program overwrites existing files with the same name. However, if the files on the system are newer than the ones being installed, the installer prompts you to specify whether or not to overwrite the existing files. In most instances, you want the *newer* version of the files on the system and should choose not to overwrite them.

Reset system variables
On Windows, 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%) are reset to the directory where the last Sybase product was installed. As a result, 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*, to set the variables correctly for that product before running the product.

5.8 Uninstalling from an environment with multiple Sybase products

Uninstalling Sybase products from environments that contain multiple Sybase products may affect operation of the remaining Sybase products.

This occurs because Sybase products frequently share modules or files, such as Connectivity files (in the Sybase *OCS-12_5* directory), JVM files (in the *shared* or *shared-1_0* directories), language modules, and Sybase Software Access Management (SySAM) files.

Shared files between products
When uninstalling Sybase products from a directory that contains multiple Sybase products, be aware that you may remove files that other products require. Therefore, if you choose to uninstall one of the products that share files, you may remove files that the remaining products require and cause the products to fail.

Change to variable
settings

On Windows, removing Sybase products may result in changes to the system variable settings, which may also impact the operation of the remaining products or services.

5.9 Uninstalling from an environment with ECDA Options and DirectConnect for z/OS

To uninstall when there is an ECDA Option and a DirectConnect for z/OS installed, you must uninstall the products in reverse order of how they were installed. This is due to a problem with the uninstall procedure.

Note Following an uninstall, you may need to manually delete files that may not have been removed.

6. Software fixes in version 12.6.1

The following sections describe the fixes for version 12.6.1.

6.1 DirectConnect use of Open Client and Open Server libraries

(CR381977) Starting with version 12.6, DirectConnect has changed how it uses the Open Client and Open Server libraries. Although DirectConnect will continue to install the Open Client and Open Server libraries in the Sybase root directory (*%SYBASE%\OCS-12_5*), it will not use these libraries. Instead, it installs a copy of these libraries in the DirectConnect *%SYBASE%\DC_12-6/bin* directory, which allows DirectConnect to isolate these libraries from Open Client and Open Server updates and from other Sybase products. This ensures that the DirectConnect libraries are the same version as the libraries used for certification. The DirectConnect ESD installation process updates these libraries.

6.2 Revised DirectConnect scripts

The DirectConnect scripts (*DCStart*, *AddServer*, *DCDirector*, *DC_SYBASE*) that are generated during installation have been simplified and improved in 12.6. The scripts no longer rely on global shell environment variables; instead, they set environment variables based on the installation-generated file, *DC_SYBASE*.

Warning! The DirectConnect scripts use the *DC_SYBASE* script—not the *SYBASE* script.

The scripts and installation program have been changed to prevent environment variable overruns or truncation (CR 325317). Sybase strongly recommends that you use the scripts for DirectConnect operations to ensure a proper operating environment.

Future versions of the DirectConnect installation program will not set global environment variables and will require the use of supplied DirectConnect scripts for starting DirectConnect and DCDirector.

6.3 Changing Administrator IDs in DirectConnect Manager

(CR390680 & CR 390830) The ability to add, delete and alter administrator user ids to DirectConnect from DirectConnect Manager has been added to DirectConnect Manager 12.6.1.

Sybase recommends that for directed DirectConnect servers, the administrator user IDs and passwords must be consistent between the Director and its directed DirectConnect servers. If not consistent, the login information must be entered repeatedly for each server as they access it. While this is feasible and works well it may become cumbersome and reduce the value of using the DCDirector. If you choose to use different UID/PWD combinations across servers, you can save this information on your local machine by selecting the permanent connection option on the login dialog box. This may reduce the impact of using different UID/PWD combinations somewhat but it reduces security.

Note If DirectConnect Manager 12.6.1 is used with pre-12.6.1 DirectConnect servers, the ability to alter an administrator properties has been disabled. To alter the properties of the administrator in a pre-12.6.1 DirectConnect server, the administrator user ID must be dropped and re-entered with the proper property values.

6.4 Software fixes

The following table lists the known problems that were fixed for the DirectConnect version 12.6.1. The DirectConnect products affected are identified, and each issue contains a description, resolution, and the associated Quality Tracking System (QTS) number.

Table 5: Description of software fixes

Product	Description	Resolution	QTS #
DirectConnect for ODBC only	The odbct test utility did not work in the bourne shell.	Corrected DC_SYBASE.sh.	420665
	The column names containing "$" were not correctly SQL transformed.	SQL transformation now supports "$" in column names.	417800
	A template transfer using a stored procedure fails.	Sybase now supports stored procedures in a template transfer.	416251
DirectConnect for DB2 UDB only	Incorrect date formatting occurred with only 3 digit years.	Dates are correctly formatted with all 4 digits.	421328
	The sp_who stored procedure caused a segmentation fault.	Result handling was corrected to allow zero row result set for DB2 targets.	420094
	The sp_tables stored procedure with an owner name starting with "@" failed.	Sybase now supports owner names starting with "@" in sp_tables and other catalog stored procedures.	415687
	SQL statements containing SUBSTRING should be changed or transformed to SUBSTR.	SUBSTR is now used for DB2 targets.	402619
	ASE/CIS cursor date parameter was bound as datetime.	The date parameter is now bound as date.	402362
	Revoked user ID caused the system to fail.	The ODBC driver now returns an error for a revoked user ID.	392025
	Using the AlternateID property to connect to the mainframe caused errors.	This has been corrected.	385229
	Varchar (2048) proxy table failed. Also bulk transfer had a problems with varchar (2048).	The driver problem with reporting long characters has been fixed.	383500 377053
	DB2 varchar datatype larger than 255 characters is incorrectly reported as a varchar datatype by the sp_columns property.	This has been corrected.	383494 385500
	A request was made for Sybase to support AS/400 SQL stored procedures.	AS/400 SQL stored procedures are now supported.	226468

Product	Description	Resolution	QTS #
DirectConnect for Informix only	Support for quoted identifiers to ASE/CIS was incorrectly reported.	Quoted identifiers are now identified as not supported.	424820 323126
	Select statements and other results-generating queries did not produce results against Informix tables containing VARBINARY columns.	This has been corrected.	275721
	Dynamic inserts into char columns on Informix failed because the UserDataType field of the CS_DATAFMT structure was not initialized.	The UserDataType field of the CS_DATAFMT structure is now initialized.	268278
	Attempts to perform bulk transfers of rows containing a NULL value datetime column failed.	This has been corrected, and it is now possible to perform bulk transfers of NULL value datetime columns.	241483
	When in sybase transformation mode, a failure occurred when inserting binary values preceded by 0x.	This problem has been corrected, and it is now possible to insert binary values preceded by 0x, with or without quotation marks.	234250
DirectConnect for Microsoft SQL Server only	WCHAR columns caused a failure in sp_columns.	WCHAR columns are now supported in sp_columns.	417657
	ReturnNativeError = *yes* returned an error message instead of MSSQL error message.	ReturnNativeError = *yes* now returns a MSSQL error message.	404658
	Null text column result failed when tracing was set to "on."	The method of sending null result value was changed.	401899
	The NTEXT datatype mapped incorrectly through ASE/CIS.	sp_columns was adjusted for NTEXT datatype and XNL settings.	392089
	Conflicting datatype was returned in sp_columns when mapping unicode to text.	The problem in sp_columns was fixed for both cspcolumnODBCVersion = *2* and *3*.	354091
	The SQL_GUID datatype caused failures.	The SQL_GUID datatype is now supported.	224420
	A null character data caused SQL statement truncation.	Null characters and binary zeros in SQL statement are now stripped when the StripBinaryZero property is set.	291774
DirectConnect Manager	A Java exception occurred when DCON/Oracle userid was not the DCON/Oracle admin.	This has been corrected.	393601
	The security of using a fixed userid=sa and password=null was too weak	The user ID and password is now configurable.	390680 390830

7. Known issues

Following are known problems in DirectConnect products in version 12.6.1:

• DirectConnect issues

• General issues

• InstallShield issues

• Product-specific issues

Note For the most current information regarding the status of the known issues, refer to the latest ESD *README* file.

7.1 DirectConnect issues

The following table lists outstanding issues that apply to DirectConnect products. Each issue identifies specific hardware or operating system information, a workaround (if available), and the QTS assigned to it, if any.

Table 6: Known issues for DirectConnect products

Product	Description	Workaround	QTS #
All DirectConnect products except DirectConnect for Oracle	Express transfer does not support the transfer of char datatypes to and from decimal datatypes.	Convert query datatypes from char to decimal datatypes in the transfer query statement by using the SQL CAST function.	None.
	Express transfer does not support the transfer of text datatypes to and from char datatypes.	Convert query datatypes from text to char datatypes in the transfer query statement by using the SQL CAST function.	None.
DirectConnect for DB2 UDB only	CLOB data is limited to 32K. BLOB datatype is not supported.	Use DirectConnect for z/OS.	None.
DirectConnect for Microsoft SQL Server	ASE/CIS is not correctly mapped to the correct datatype, resulting in insert failures.	None	275506
	Update of read-only cursors fails to return errors against Microsoft SQL Server 2005.	None	425343

7.2 General issues

This section contains general issues in DirectConnect that have no QTS identifiers.

7.2.1 Editing sql.ini with a word processing program

If you edit the *sql.ini* file with a word processing program, such as Microsoft Word, extra non-printable characters can be added to the end of text in the *sql.ini* file. As a result, Sybase Open Server-based applications might not recognize server names as defined in the *sql.ini* file.

To modify the *sql.ini* file, use dsedit, which Sybase provides with your Open Client and Open Server installation.

7.2.2 Service Name Redirection default value

The default *server.cfg* file does not give *snrf.tbl* as the default value. For a workaround, if you are using the default *snrf.tbl*, enter the following in the *server.cfg* file under the section called Client Interaction:

```
ServiceRedirectionFile=snrf.tbl
```

7.3 InstallShield issues

This section contains issues that pertain to InstallShield.

7.3.1 Uninstall function not removing all DirectConnect files

On Windows, when you use InstallShield's Uninstall function from the Start menu, it does not remove all DirectConnect server files. Be sure to verify the files and manually remove any that remain.

Note The *locales* file, the *charsets* directory, and any file that was created following the installation is not removed by the uninstall program.

7.4 Product-specific issues

This section contains issues that relate to specific products in version 12.6.1.

7.4.1 DirectConnect for DB2 UDB

Following are issues pertaining to DirectConnect for DB2 UDB.

Code page support

For code page conversions involving extended character sets, refer to the Enterprise Connect Data Access Options *User's Guide for Access Services*, Chapter 2, "Configuring the Access Service Library for DirectConnect," the section titled, "Code page translation for ODBC-based products."

Setting WorkArounds2 value for space padding

For space padding, you need to verify that a special string key, the WorkArounds2=131072 string value is defined in the Windows registry. This allows the driver to pad DB2 char for bit data fields with spaces instead of binary zeros. Repeat the process for each DB2 UDB Data Source Name (DSN) that you are going to use with DirectConnect. See the Enterprise Connect Data Access *Installation Guide* for Microsoft Windows, Chapter 5, the section titled, "Add the WorkArounds2 string key to pad DB2 character data."

7.4.2 DirectConnect for Informix

Following is an issue pertaining to DirectConnect for Informix.

Setting WorkArounds value to support bulk transfers

(CR385334 and CR427680) For bulk transfer and ASE/CIS select into statements to work, the WorkArounds=536870912 value string must be set in the Windows registry for each DirectConnect for Informix DSN. See the Enterprise Connect Data Access *Installation Guide* for Microsoft Windows, in Chapter 5, in the section titled, "Add the WorkArounds string key to support bulk transfers."

7.4.3 DirectConnect for Microsoft SQL Server

Following are issues pertaining to Microsoft SQL Server.

NCHAR and NVARCHAR datatype support

Microsoft NCHAR and NVARCHAR datatypes are not supported but are translated to the single-byte character set of the operating system. Unicode characters that cannot be mapped are translated to a default character for the operating system.

Service Pack version

If your Microsoft SQL Server 2000 is not at Service Pack 3 or later, set QuotedIdentifiers=yes for the DSN entry for accessing Microsoft SQL Server.

7.4.4 DirectConnect for Oracle

Following are issues pertaining to DirectConnect for Oracle.

Removing DirectConnect for Oracle setup as a Windows service

If you set up DirectConnect for Oracle as a Windows service, you must remove the service using instdco.exe as described in the DirectConnect for Oracle *User's Guide*. The InstallShield Uninstall process does not remove the Windows service.

Default character set

If the default character set for DirectConnect for Oracle does not match that of Adaptive Server® Enterprise/Component Integration System (ASE/CIS) and a writetext is issued to insert text, the text field is not converted as expected. For the us_english language, this should not be a problem, because the normal printing characters are the same in the supported character sets. However, for other languages, this can pose a problem.

The workaround is to make sure that ASE/CIS has the same default character set as DirectConnect for Oracle. For better performance, it is always best to use the same character set.

Language and character set settings

(CR 401934) DirectConnect for Oracle has multiple settings that correspond to the character set and language setting, which can set in many ways. However, you must keep the character set setting consistent with the charset, languages, and charset settings.

If the configuration parameter charset is set to *Sybase iso_1*, the mapping coded in the "charsets" stanza must be mapped to Oracle's equivalent character set, which is *we8iso8859p1*. In addition, this setting must also be reflected in the "languages" stanza by including the *we8iso8859p1* in the Oracle charset setting. If these are not set consistently, if a character is used that is contained in either the Sybase or Oracle character set and not in the other, you may receive an "ORA-00911: invalid character" message.

DirectConnect for Oracle converts the incoming client characters to the charset setting, which should match that of the Oracle setting. When characters are returned to the DirectConnect for Oracle client, they are then converted back to the character set setting of the client.

The language setting corresponds to the language in which the local DirectConnect for Oracle error messages are returned. The setting for Oracle Language and Territory coded in the languages stanza is the language in which the Oracle defined error messages will be sent back to the client. All attempts must be made to make sure the language settings match.

Joins with *char* and *varchar*

Joins between char columns and varchar columns might not return any rows. In addition, the query returns no rows when run directly against Oracle. However, running the query against Adaptive Server with the same data will return rows. The difference occurs because Sybase and Oracle have different comparison rules when the columns are not all fixed length. The workaround is to alter the table definitions so the column definitions match.

Blank-padded comparisons

If a column *c1* of type char(5) has a value "a" inserted into it, the following SQL statement will not return any rows if the table is on an Oracle database:

    select...where c1 like "a"

Oracle does not make blank-padded comparison for arguments to like clauses. However, when executed against a table on Adaptive Server, the same SQL statement fetches the row.

Given the same setup, the following SQL statement returns the row when the table is on either Adaptive Server or Oracle:

    select...where c1 = "a"

When c1 = "a" is used, Oracle performs blank-padded comparisons.

Admin Service user.pwd file

The Admin Service of DirectConnect 12.6.1 has been changed from to read and write encrypted passwords to the *user.pwd* file. Earlier versions of *user.pwd* files are not supported with DirectConnect 12.6.1 and will result in administrator login failures. To fix this problem Administrator IDs and passwords from earlier installations must be reentered to the new Admin Service.

8. Product compatibilities

DirectConnect products in version 12.6.1 are compatible with the following:

- Sybase Open Client 12.5.1 and later

- Adaptive Server 12.5 and later

- Sybase Replication Server 12.6 and later

- jConnect™ for JDBC™ for 6.0 and later

- DirectConnect Manager 12.6.1 and later

Warning! DirectConnect 12.6.1 cannot be installed in the same directory tree with Adaptive Server 11.x and later, or with Sybase Replication Server 11.x and later.

9. Documentation updates and clarifications

The section describes additions and revisions to the DirectConnect 12.6 documents to reflect revisions in version 12.6.1.

9.1 ECDA Option for Oracle Server Administration and User's Guide

The following are documentation revisions for each chapter.

9.1.1 Chapter 2, Configuring and Operating DirectConnect for Oracle

timestamp_tz_format

A new datatype, a timestamp with timezone format (timestamp_tz_format), normalizes the data value returned to the timezone of DirectConnect for Oracle. The new timestamp_tz_format default value is "MON DD YYYY HH:MI:SS.FFAM TZH:TZM" and is independent of the timestamp millisecond support configuration parameter.

The Oracle timestamp_tz_format is sent back to the client as a character string, and is formatted depending on the following:

- If the client is a non-CIS client and the timestamp_tz_format was changed, the new format is used.

- If the client is a non-CIS client and the timestamp_tz_format was not changed, the default format is used.

- If the client is a CIS client, the character string is returned using the default format.

In CIS, to map a proxy table to an existing Oracle table that contains a column with the timestamp_tz_format datatype, the create proxy_table command will map the column to a char (64). If the create existing table command is used, a char (64) must be specified for the column representing the timestamp_tz_format.

date_format and *timestamp _format* settings

The two configuration property settings, date_format and timestamp_format, are reserved for all DirectConnect for Oracle client connections in passthrough mode such as, isql, which excludes ASE/CIS clients.

9.1.2 Chapter 3, Reference Topics for Oracle

In the section titled, "Lightweight Directory Access Protocol (LDAP)," add the following information for Windows.

❖ **To set up LDAP for Windows**

1 In the *%SYBASE%\%SYBASE_OCS%\ini* directory, create a *libtcl.cfg* file and add the following lines under [DIRECTORY]:

```
; This is the sample Net-Library configuration file
which
; shows how to specify the different types of drivers
that
; will be used by Client-Library and Server-Library
; applications.
;
; This is the sample for NT platforms.
;
```

[DRIVERS]

```
NLWNSCK=TCP Sockets
NLWNSCK=TCP/IP Sockets
```

[NT_DIRECTORY]

```
   ldap=libdldap ldap://
```

[SECURITY]

```
    ;NTLM=LIBSMSSP
```

[FILTERS]

```
    ;SSL=LIBFSSL
```

Warning! The LDAP URL under the [NT_DIRECTORY] must be on a single line.

---

2   Set the following Sybase environment variables (Assuming that the DirectConnect for Oracle is installed on the "d" drive in the *ASE_IR* directory):

```
set SYBASE=d:\as125_IR
set SYBASE_TCL_CFG=d:\as125_IR\OCS-
12_5\ini\libtcl.cfg
set SYBASE_OCS=OCS-12_5
set PATH=%SYBASE%;%SYBASE%\%SYBASE_OCS%\dll;
%SYBASE%\%SYBASE_OCS\lib3p;%SYBASE%\
%SYBASE_OCS%\lib;
%SYBASE%\%SYBASE_OCS%\ini;%SYBASE\%SYBASE_OCS%
\bin;%PATH%
```

3   Add your server entry to the LDAP server:

```
%SYBASE%\%SYBASE_OCS%\bin\dsedit
```

4   Add an entry for your server into the LDAP server, following the same steps that you would for an Adaptive Server Enterprise server. Refer to the Adaptive Server Enterprise *Utility Guide* for more information about using dsedit.

5   To test the new setup, isql into the server without using the *sql.ini* file.

9.1.3 Chapter 4, Executing Remote Procedure Calls

In the section titled, "RPCs passed to Oracle," replace the second paragraph with the following:

When DirectConnect for Oracle executes a stored program, it associates the actual and formal parameters by position. Therefore, when calling a subprogram using DirectConnect for Oracle, pass the parameters using positional notation or named notation.

Note   Mixed notations, both positional and named, are not supported in a single Oracle procedure call.

9.2 ECDA User's Guide for Access Services

The following are document revisions for each chapter.

9.2.1 Chapter 2, Configuring the Access Service Library for DirectConnect

The following configuration properties were added for version 12.6.1.

DisableROLock (for MSSQL only)

(CR400180) Disables a lock that is created on a read-only cursor. It is part of the Target Interaction subsection of properties.

Syntax	DisableROLock=[yes | no]
Default	no
Values	• yes disables the lock on the read-only cursors.
	• no retains the lock on the read-only cursors.

StripString

(CR378901) Removes the configured character string from the beginning of an incoming language event. It is part of the Client Interaction sub-section of properties.

Syntax	StripString=character string
Default	blank
Value	• *character string* is the configured string that is to be removed from the beginning of the incoming language string. It must match the incoming language string exactly, including case and spaces.

TransferBatch

Sets the number of rows DirectConnect will fetch into the receive buffer. It is part of the Transfer sub-section of properties.

Syntax	TransferBatch=*integer*
Default	1 (one)
Value	• *integer* is the number of rows that DirectConnect will send and fetch in one batch to ASE.
	• *1* (one) is the default value.

TransferBatchSeparator

(CR396955) Delimits the statements in batch. It is part of the Transfer sub-section of properties.

Syntax	TransferBatchSeparator=*; (semicolon)*
Default	space
Value	• *; (semicolon)* indicates that the target database is DRDA.
	• *space* indicates that the target database is ASE.
Comment	When required, set the property to a semicolon.

TransferPacketSize

The packet size between DirectConnect and the target database. It is part of the Transfer sub-section of properties.

Syntax	TransferPacketSize=*integer*
Default	512
Value	*integer* must be in multiples of 512 and must not exceed the target packet size; otherwise, the connection will fail.

Warning! If you increase the packet size beyond the capabilities of ASE, the transfer login to the secondary database will fail.

Comment   You can determine the ASE packet size by using sp_configure:

• To return the default packet size:

```
sp_configure "default network packet"
```

• To return the maximum size:

```
sp_configure "max network packet"
```

MaxResultSize

(CR 426212, CR 426209) The following replaces the property description.

Specifies the maximum number of bytes an access service returns to the client application in a result set.

Syntax	MaxResultSize=*integer*
Range	0 – 2147483646

Default	unlimited
Values	• *integer* is a number of bytes.
	• A value of 0 indicates that the result size is an unlimited value.
Comments	• The MaxResultSize value is approximate in that the access service checks at the end of each row to see if the value is exceeded.
	• If the value is exceeded, the access service does the following:
	• Sends the entire row to the client application (not a partial row)
	• Does not send any of the remaining rows in the result set

MaxRowsReturned

(CR 426212, CR 426209) The following replaces the property description.

Specifies the maximum number of rows an access service returns to the client application in a result set.

Syntax	MaxRowsReturned=*integer*
Range	0 – unlimited
Default	unlimited
Values	• *integer* is a number of rows.
	• A value of 0 indicates that the rows returned is an unlimited value.
Comment	If the MaxRowsReturned value is exceeded, the value is returned to the client as an error.

9.2.2 Chapter 9, Using Bulk Copy Transfer and Express Transfer

(CR401890) Replace the syntax for express transfer in the section titled "Syntax." The properties have changed, and a new option called alter table supplements the insert, replace, and truncate options.

Syntax

The following is the required syntax for a bulk copy and express transfer statement:

transfer [with report]

{to | from} 'secondaryname userid password';

with {insert | replace | truncate | alter} into *tablename*;

sourceselectstatement

where:

- transfer must begin all transfer statements.

- with report is an optional phrase specified in the first line of the transfer statement. It instructs the access service to return processing information to the client application.

  This information is returned as a result set consisting of a VARCHAR column and a single row. The row contains the number of rows transferred, rejected, and modified during processing.

- {to | from} indicates the direction of the transfer:

  - to specifies that the data is transferred from the primary database to the secondary database.

  - from specifies that the data is transferred from the secondary database to the primary database.

- secondaryname userid password is a three-part character string that provides the information needed to connect to the secondary database:

  - secondaryname is the name of the secondary database and must be recorded in the following DirectConnect files:

    - For bulk copy transfer, in the *interfaces* file (for UNIX), or in the *sql.ini* file (for Windows.)

    - For express transfer, the secondaryname must match a data source name (DSN) in the *ODBC system information* file.

  - userid and password must be valid on the secondary database. If the password is NULL, you can substitute an asterisk for password and it will be corrected to a NULL when sent to the secondary connection. Exactly three tokens are sent to the secondary connection.

  All of the elements of the character string must be enclosed in single or double quotes in the order shown.

- with {insert | replace | truncate} into specifies whether the data is appended onto the target table (insert) or the existing data is deleted and replaced (replace or truncate).

  When transferring data to Adaptive Server, the truncate option causes transfer to issue a truncate, rather than a delete against the target table. For other target databases, delete and truncate are equivalent.

- [with alter} into invokes a UDB command that disables logging for the transaction and will truncate the table. (For DB2 UDB only).

  > **Note** Using this transfer syntax must be done with many precautions. Errors will render the table useless and must be handled according to IBM's restore procedures. Read the IBM documentation pertaining to the ALTER TABLE command and its ACTIVATE NOT LOGGED INITIALLY option. If an error occurs during the transfer, the table will be rendered unusable and the entire transaction will not be logged.

- *tablename* specifies the table into which data is inserted or replaced. The table must already exist because the transfer statement does not create a new one in the target database.

- sourceselectstatement specifies a SQL statement that is executed against the source database to produce the result set used in the transfer.

  This statement can be any statement the source database will accept, including stored procedures. SQL transformation is not performed on the sourceselectstatement. It must be in the source database SQL dialect.

9.2.3 Chapter 12, Retrieving Information with System Procedures

In the current document, the sp_who system procedure was identified as not being supported by DirectConnect. This information is incorrect; The system procedure sp_who is supported for ECDA Option for Microsoft SQL Server and ECDA Option for Oracle only.

The following is a description of the sp_who system procedure.

Description	Reports information on current users and processes on SQL Server.
Syntax	sp_who [login_name	"spid"]
Usage	For each process being run, sp_who reports the server process ID, its status, the login name, the name of the host computer, the name of the database, and the command being run.
	If no name is provided, sp_who reports on processes being run by all users.
Parameters	• *login_name* is the user's SQL Server login name. If you provide a login name, sp_who reports information on processes being run by the specified user.
	• *spid* is the number of a specific process. You must enclose it in quotes because a character-type argument is expected.

9.3 ECDA and Mainframe Connect Server Administration Guide for DirectConnect

The following are document revisions for the following chapter.

9.3.1 Chapter 5, Setting up SSL and a Windows Service

In the section titled "Configure DirectConnect as a Windows service," the document is corrected to specify that you must reboot after you update the system environment variables.

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.

❖ **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.