Borland SQL Link: Connecting to Oracle

To get help on an item, click the underlined text. For an overview of what the SQL Link driver is and how it works, see Essentials first.

Essentials -- Read this section for a brief overview of Borland SQL Links for Windows.

Configuring the driver -- Follow these procedures to configure the SQL Link Oracle driver.

Creating an alias -- Information you need to create an Oracle alias.

Connecting to Oracle -- How to connect to the Oracle database through your IDAPI application.

Troubleshooting steps -- If you cannot establish an Oracle connection, follow these steps to try to isolate the problem.

Essentials

Borland® SQL Links for Windows is a collection of drivers that let you work with SQL data through supported Borland applications. The SQL Link driver enables the connection to the SQL server, translates queries into the appropriate SQL dialect, and passes them to the SQL database. When processing is complete, the SQL database returns the answer to the client in a format that the desktop application can display.
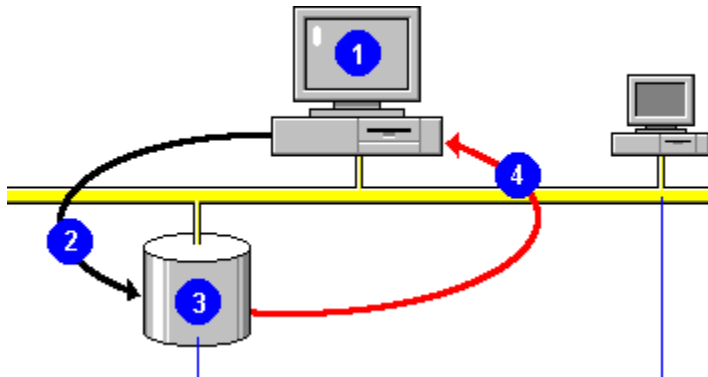
Note Borland database applications also support the use of SQL statements against local (Paradox or dBASE) data. For information on how to use local SQL with your Borland database application, see your user documentation.

Supported Borland applications

Borland SQL Links works with any application that supports the Borland Database Engine (also known as IDAPI, the Integrated Database Application Programming Interface).   This includes Paradox for Windows, dBASE for Windows, Quattro Pro for Windows Database Desktop, and custom applications built using the Borland Database Engine.

Supported databases

Drivers in the SQL Links product package support InterBase, Informix, ORACLE, and SYBASE and Microsoft SQL Server databases.

Configuring the SQL Link ORACLE Driver

<u>Creating an ORACLE Alias</u>

After SQL Link ORACLE driver installation is complete, the first thing you should do is configure the default parameters for the ORACLE driver itself.

Driver Name lists all the available drivers.

New Driver enables you to add an ODBC driver connection to the list of available drivers.

Delete Driver enables you to delete an ODBC driver connection from the list of available drivers.

Parameters shows all the parameters with their current values.

Description briefly notes the purpose of the selected parameter.

To configure the ORACLE driver, choose ORACLE as the Driver Name and highlight the desired configuration parameters. Delete the old value and enter a new one in the appropriate text box.

Setting	Meaning
VERSION	Internal version number of the SQL Link ORACLE driver.
TYPE	Type of server to which this driver helps you connect. Can be SERVER (SQL server) or FILE (standard, file-based server).
DLL	The name of the driver's Dynamic Link Library (SQLD_ORA.DLL).
VENDOR INIT	ORACLE-specific initialization information.
DRIVER FLAGS	Internal product-specific flag. Do not change without direct instructions from Borland support personnel.
SERVER NAME	Name of the target ORACLE SQL server.
USER NAME	Default name for accessing the ORACLE SQL server.
NET PROTOCOL	Network transport used to communicate with the database server. [more]
OPEN MODE	Mode in which SQL Link opens the ORACLE database. Can be READ/WRITE (default) or READ ONLY.
SCHEMA CACHE SIZE	Number of SQL tables whose schema information will be cached. Can be any whole number from 0 to 32 (default=8).
LANGDRIVER	Language driver used to display SQL data. (US. default=blank) Choose the language driver that matches your ORACLE server character set and collation sequence. If none of the language drivers supplied match, choose a language driver that matches the desired character set. [more]
SQLQRYMODE	Method for handling queries to SQL data. Can be NULL (blank setting; default), SERVER, or LOCAL. [more]
SQLPASSTHRU MODE	Specifies whether or not the desktop application will be able to access the ORACLE SQL server via desktop queries and pass-through SQL queries in the same alias connection. Can be NOT SHARED, SHARED AUTOCOMMIT (default), or SHARED NO AUTOCOMMIT. [more]
SCHEMA CACHE TIME	Specifies how long table list information will be cached, in seconds. Can be -1, 0, or any integer from 1 through 2,147,483,647. [more]

Creating an ORACLE Alias

Use the Alias Page to <u>add</u>, <u>delete</u>, or <u>modify</u> an ORACLE alias.

Alias Names lists all the available aliases.

New Alias enables you to add a new alias.

Delete Alias enables you to delete any alias that is highlighted in the Alias Name box.

Parameters shows all the parameters with their current values.

Description briefly notes the purpose of the selected parameter.

The following parameters are displayed.

Setting	Meaning
TYPE	Type of server to which this driver helps you connect. Can be SERVER (SQL server) or FILE (standard, file-based server).
PATH	Reserved for future use.
SERVER NAME	Name of the target ORACLE SQL server.
USER NAME	Default name for accessing the ORACLE SQL server.
NET PROTOCOL	Network transport used to communicate with the database server. [more]
OPEN MODE	Mode in which SQL Link opens the ORACLE database. Can be READ/WRITE (default) or READ ONLY.
SCHEMA CACHE SIZE	Number of SQL tables whose schema information will be cached. Can be any whole number from 0 to 32 (default=8).
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Connecting to ORACLE Through Your IDAPI Application

When you are within your IDAPI application you can connect to an Oracle database either automatically (by performing a database action) or manually (without performing a database action).

The object of the connection process is to determine whether you have the right to access the database, and, if so, what kind of access permission you have (READ/WRITE or READ ONLY).

The connection is made through your Oracle alias.

Connecting from Paradox for Windows or the Database Desktop

The first time you try to query or view a table in your Oracle database through Paradox for Windows, SQL Link displays the Database Information dialog box.   To complete the connection, enter your password in the Database Information dialog box and click OK.

If the connection is successful, your application continues with the operation you requested. The database to which you connected remains connected for the rest of the current session.

Connecting manually

If you ever want to connect to a database without first performing a database action, you can connect manually through the Paradox Alias Manager:

1.   Select Files | Aliases to open the Alias Manager dialog box.

2.   Choose the desired alias from the drop-down list in the Database Alias field; the Alias Manager displays the configuration of the selected alias.

3.   Enter your password and choose Connect.   If the connection is successful, the Alias Manager displays Connection is successful.   Database is open.

4.   To close the Alias Manager dialog box, click OK.

Disconnecting manually

To disconnect from the Oracle server without exiting Paradox, redisplay the Alias Manager and choose Disconnect.

Connecting from dBASE for Windows

In dBASE for Windows, you cant connect to the Oracle database without performing some kind of database action. However, you can start an action against the Oracle database in either of the following ways:

From the Navigator

1. Open the Navigator and click the Tables from Database button; dBASE displays a list of the available database aliases.

2. Double-click on the desired alias; dBASE displays the Open Database dialog box.

3. Enter your password in the Open Database dialog box, then click OK.

   If the connection is successful, the Navigator displays the tables available through the selected database.

From File | Open

1. Select File | Open to open the Open File dialog box.

2. Click the Databases button. dBASE displays the Open Table dialog box, which lists the available database aliases.

3. Double-click on the alias that connects with the desired database; dBASE displays the Open

Database dialog box.

4. Enter your password in the Open Database dialog box and click OK.

If the connection is successful, the Open Table dialog box displays a list of tables available in the database to which you just connected.

Troubleshooting Your ORACLE Connection

If you have problems establishing an ORACLE connection with SQL Link, try to isolate the problem the following way:

Use your ORACLE tools to verify the connection at each layer:

1. Use SQL*DBA or SQL*Plus to enter a CONNECT command. For example:

```
SQLDBA> connect jlee/trapper @p:MIS_SERVER;
```

You can then enter a SQL command to test the connection. Each command should end with a semicolon. For example:

```
SQLDBA> select * from dictionary;
```

2. Verify that your AUTOEXEC.BAT file contains the lines:

```
SET CONFIG=C:\ORACLE6\CONFIG.ORA
PATH=C:\;C:\DOS;C:\ORACLE6;C:\ORACLE6\BIN
```

ORACLE6 is the name of your ORACLE 6.0 directory.

The easiest way to ensure that all of these parameters are set correctly is to run the ORACLE DOS installation program on your workstation (type orainst at the DOS prompt). This sets up the appropriate directories, copies the appropriate drivers and programs, creates the configuration file, and sets up the correct environment variables.

Make sure that your server and the correct SQL*Net listener are running.

Verify that the network layer is functioning.

If you have file and print services, verify that the network layer is functioning by trying to share files and print jobs to the spooler.

Make sure your network interface card is working properly.

Use hardware diagnostics to make sure your network interface card is working properly.

Note: For more information on ORACLE diagnostic tools, see your ORACLE documentation.

Modifying an ORACLE Alias

To modify an ORACLE alias, highlight the alias and the parameter you want to change, then enter a new value in place of the old one.

Adding a New ORACLE Alias

To create a new ORACLE alias, click the New Alias button.which displays the Add New Alias dialog box. (The new alias starts with the default alias type: STANDARD.)

Enter a name for the new alias and select the ORACLE alias type.

Deleting an ORACLE Alias

To delete an ORACLE alias, highlight the alias you want to delete, then click the Delete Alias button. Reconfirm by clicking Yes in the Delete Alias dialog box.

LANGDRIVER Settings

Long driver name	Short name	Character set	Collation seq.
Paradox 'ascii'	ascii	DOS code page 437	Binary
Paradox 'intl'	intl	DOS code page 437	Paradox 'intl'
Paradox 'intl' 850	intl850	DOS code page 850	Paradox 'intl' 850
Paradox 'nordan'	nordan	DOS code page 865	Paradox 'nordan'
Paradox 'nordan40'	nordan40	DOS code page 865	Paradox 'nordan40'
Paradox 'swedfin'	swedfin	DOS code page 437	Paradox 'swedfin'
Paradox ANSI INTL	ANSIINTL	ISO8859.1 (ANSI)	Paradox 'intl'
Paradox ESP 437	SPANISH	DOS code page 437	Paradox ESP 437
Paradox ISL 861	iceland	DOS code page 861	Paradox ISL 861
Pdox ANSI INTL850	ANSII850	ISO8859.1 (ANSI)	Pdox 'intl' 850
Pdox ANSI NORDAN40	ANSINOR4	ISO 8859.1 (ANSI)	Pdox 'nordan40'
Pdox ANSI SWEDFIN	ANSISWFIN	ISO 8859.1 (ANSI)	Pdox 'swedfin'
PDox ESP ANSI	ANSISPAN	ISO 8859.1 (ANSI)	PDox ESP437
SQL Link ROMAN8	BLROM800	ROMAN8	Binary
Borland ENU Latin-1	BLLT1US0	ISO 8859.1 (ANSI)	Binary

SQLQRYMODE Settings

Setting	Meaning
NULL (blank setting)	Server-local mode (default). Query goes first to the ORACLE server. If the server is unable to perform the query, the query is performed at the desktop.
SERVER	Server-only mode. Query is sent to the ORACLE server. If the server is unable to perform the query, the query fails.
LOCAL	Local-only mode. Query is always performed at the desktop.

SQLPASSTHRU MODE Settings

Setting	Meaning
NOT SHARED (blank setting)	Pass-through SQL and non-pass-through SQL do NOT share the same connection.
SHARED AUTOCOMMIT	(Default mode) Pass-through SQL and non-pass-through SQL will share the same connection, and (as long as you are not in an explicit client transaction or batch mode) pass-through SQL will be

	automatically committed.
SHARED NOAUTOCOMMIT	Pass-through SQL and non-pass-through SQL share the same connection, but pass-through statements will not be automatically committed.

For further information, see *Connecting to ORACLE*.

NET PROTOCOL Settings

Value	Description
3270	IBM 3270 protocol
APPC	IBM APPC LU 6.2 protocol
ASYNC	Asynchronous (dial-up) access protocol
DECNET	Digital Equipment Corporation DECnet protocol
NAMED PIPES	Named Pipes protocol, as used by OS/2
NETBIOS	NetBios protocol, as used by LAN Manager and other PC LANs
SPX/IPX	SPX/IPX protocol, as used by Novell NetWare
TCP/IP	Transport Control Protocol/ Internet Protocol, as used by Unix and VAX workstations
VINES	Banyan VINES protocol

SCHEMA CACHE TIME Settings

Setting	Meaning
-1	(Default). The table list is cached until you close the database.
0	No table lists are cached.
1 through 2147483647	The table list is cached for the number of seconds specified in the setting.