

OpenLink ODBC Driver (Express Edition) User Guide

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2 Chapter 1. OpenLink ODBC Driver (Express Edition) Documentation

Abstract

OpenLink Express Edition drivers enhance the common perception of an ODBC driver - a single component installed on the desktop or workstation machine only - by not requiring any further installation of database-specific networking on the client, or components on the database-server. Once installed, it provides seamless connectivity to the databases. The Express Edition drivers have been designed in harmony with Apple's Mac Universal Platform. Maximum capability, minimum effort.

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- Overview
 - Driver Architecture
 - ♦ System Requirements
 - Installation and Configuration Guide
 - ♦ OpenLink Express Edition Drivers Installation and Configuration on Mac OS X

2.1 Overview

The OpenLink Express Edition driver is a client-only installation and goes some way to ensure the job for developers, administrators and end-users is simplified. Part of this process means installing the software in one location as opposed to numerous locations. By discarding the server-side setup, there is no server-side administration so the user has only a single entry-point for installation and administration. In the majority of cases, knowing the database by name is all that is required.

To the developer writing an application, there is no requirement to know on which server it resides: you can write your application for any environment, regardless of where it will end. There are also performance benefits gained by employing this single solution, which in some cases exceeds that provided by the database vendor's drivers. Being able to integrate your solution simply into your organization with its plethora of internal and disparate systems means your RoI increases significantly.

2.1.1 Driver Architecture

These drivers are built by implementing the ODBC data-access interface specifications directly connecting to the database. There are no limiting factors as with traditional Single-Tier solutions.

The Express Edition drivers are Type-B- or -C-based remote procedure calls (RPC) interface to the wire-protocol of the underlying database. This is a client-only interface that communicates directly with the remote database server. These interfaces typically are unavailable to third-party developers. To date the Open Source projects such as FreeTDS, MySQL, PostgreSQL and Interbase are the only publicly accessible and freely available versions of such interfaces.

The ODBC Express Edition drivers offer developers an opportunity to develop generic solutions across platforms without prior knowledge of the operating system hosting the Database server.

2.1.2 System Requirements

2.1.2.1 Software Requirements

You must have the following software to use OpenLink Express Edition ODBC Drivers:

- One or more ODBC-compliant application(s).
- A supported database server.
- The OpenLink Express Edition ODBC Driver for the target database server
- A valid license file for each required OpenLink Express Edition ODBC Driver.

2.1.2.2 Hardware Requirements

You must have the following hardware to use OpenLink Single-Tier Drivers for ODBC:

- A TCP/IP network connection to the database server from the client machine the Express Edition driver is installed on.
- An ODBC Application Host running an operating system that is supported by OpenLink Express Edition ODBC Drivers. The currently supported operating systems are Mac OS X 10.3 (PPC), Mac OS X 10.4 (PPC & Intel). Please check the OpenLink website http://www.openlinksw.com/ to verify availability of support for an operating system.

The ODBC client applications you want to use may have their own hardware or software requirements, which must also be satisfied.

2.1.3 Installation and Configuration Guide

This section provides a step-by-step guide for the installation and configuration of the OpenLink Express Edition drivers.

2.1.4 OpenLink Express Edition Drivers Installation and Configuration on Mac OS X

3 Chapter 2. Product Licensing

Table of Contents

- OpenLink License Manager Usage Notes
 - ♦ Background
 - ♦ Single-Tier
 - ♦ Multi-Tier
 - ♦ How to stop/start the OpenLink License Manager
 - ♦ Environment Variables
 - ♦ OpenLink License Manager Networking Considerations

3.1 OpenLink License Manager Usage Notes

3.1.1 Background

As of UDA release 6.0 and above, OpenLink have moved the handling of licenses from individual products into a specific License Manager process. This takes the form of an executable, (`oplmgr'), from which all OpenLink commercial products request licenses via network connections.

3.1.2 Single-Tier

OpenLink UDA Single-Tier is a single driver installed on the client only.

For releases 6.0, the oplmgr process was started automatically by the driver on first connection. As of release 6.1, this behaviour has changed; in order to facilitate use of License Manager process for administering licenses of all OpenLink products simultaneously on the same machine, the license-manager must be started explicitly started in advance of services that will use it. The release 6.1 installers now check if a License Manager (oplmgr) process is already running and if not start their own local instance.

3.1.3 Multi-Tier

OpenLink UDA Multi-Tier drivers comprise at least 3 components: a generic client installed on client machines, all of which contact a central request broker which spawns an RDBMS-specific database agent to connect to the specific database requested. The request-broker asks the license-manager for licenses for every connection requested.

For UDA release 6.0, the oplmgr process was started automatically by the request-broker (oplrqb). As of release 6.1, this behaviour has changed. In order that you should only need one license-manager per server, handling licenses for a variety of products (particularly combinations of Multi-Tier and OpenLink Virtuoso Universal Server), the license-manager must now be explicitly started before other services requiring it. The release 6.1 installers now check if a License Manager (oplmgr) process is already running and if not start their own local instance.

3.1.4 How to stop/start the OpenLink License Manager

The license manager takes the following commandline options:

```
bash$ oplmgr --help
     OpenLink License Manager
     Version 1.2.2 as of Thu Feb 15 2007 (Release 6.0 cvsid 00084).
     Compiled for Linux 2.4.20-46.9.legacysmp
(i686-generic-linux-glibc23-32)
     Copyright (C) OpenLink Software.
     Usage:
     oplmgr [-shrutp] [+start] [+stop] [+reload] [+user arg] [+chroot arg]
     [+pidfile arg]
               start the license manager
     +start
               stop the license manager
     +stop
     +reload force a configuration reload
             run as the specified user
     +user
     +chroot
               perform a chroot to the specified directory
     +pidfile pid file to use for server operation
```

We recommend that you create an /etc/init.d/ script that runs `oplmgr +start' on boot-up.

3.1.5 Environment Variables

The OpenLink License Manager will search through directories in the OPL_LICENSE_DIR variable or failing that, the PATH environment variable, for files matching *.lic.

OpenLink recommends you use /etc/oplmgr/ to store your licenses; each product installation will include a copy of the oplmgr executable in its respective 'bin' directory, such that if this is the only OpenLink product on the system, it can be manually started and used for processing licenses with an appropriate OPL_LICENSE_DIR value. A generic system startup script is also being developed for Unix systems to enable the License Manager process to be automatically started on machine boot. If found, product installers will automatically append this to your OPL_LICENSE_DIR variable.

3.1.6 OpenLink License Manager Networking Considerations

The OpenLink License Manager sends and receives using the multicast IP address 224.0.0.24 on port 60001/udp to communicate between components and other license-managers that might be on your network. In the event that it cannot establish this multicast communication, it may cease allocating licenses, so in the event of license allocation-related errors, please check your firewall configuration permits this traffic.

4 Chapter 3. OpenLink ODBC Driver for DB2 (Express Edition)

Table of Contents

- OpenLink ODBC Driver for DB2 (Express Edition) for Mac OS X
 - ♦ Installation Guide
 - ♦ Configuration
- OpenLink ODBC Driver for DB2 (Express Edition) for Windows
 - ♦ Installation
 - Configuration

4.1 OpenLink ODBC Driver for DB2 (Express Edition) for Mac OS X

4.1.1 Installation Guide

The OpenLink ODBC Driver for DB2 (Express Edition) is distributed as a Disk image (DMG) file. Simply double click on the disk image 'mul6edb2.dmg' to extract the installer mpkg file:

Figure 3.1. InstallerA_DB2.png



Double click on the mpkg file to run the installer and following the on screen instruction as indicated below to complete the installation:



Figure 3.2. InstallerB_DB2.png

Installer Welcome Dialog for the OpenLink ODBC Driver for DB2 (Express Edition):

Figure 3.3. Installer1_DB2.png



Please review the readme file for installation requirements and known issues:

	Important Information
Introduction	Release 6.0, April 2006
🖯 Read Me	This installation program will install the following Universal Binary
🖯 License	Format components:
Select Destination	OpenLink Express Edition for DB2 OpenLink iODBC Driver Manager
Installation Type	OpenLink iODBC Administrator
Install	OpenLink iODBC Sample Program
Finish Up	
	Minimum System Requirements
	Mac OS X 10.3.9 or above
	Known ODBC-Compliant Application Issues
	REALbasic variants through Version 4.0 were not fully ODBC-

Please read the software license agreement before continuing your installation:

	Software License Agreement			
Introduction	English			
🖲 Read Me	OpenLink Software License Agreement License for Express Edition for DB2			
🖲 License				
Select Destination				
Installation Type	Quantity One or more copies of this product limited to 2 concurrent connections enforced by the <i>Express Edition for DB2</i> License Manager. Additional license options shall be reflected in your <i>Express Edition for DB2</i> License file.			
Install				
Finish Up				
	Use			
	You (<i>an entity or a person</i>) can make use of the software identified above (<i>the "Software"</i>) in the quantity stated above if you meet the following conditions:			
	OpenLink Client Components (Express Edition for DB2)			
	You must acquire one copy of the software for each client on which			

Select destination volume for driver installation:





Choose to perform a custom or default installation of the driver:



If you chose the custom option select which of the components below are to be installed:

Figure 3.8. InstallerC DB2.png

	Package Name	Action	Size
Introduction	▶ ☑ iODBC Driver Manager and SDK	Unamala	0 bytes
Read Me	 License Manager Express Edition driver for DB2 	Upgrade	24.0KB
License	Online Documentation (Single Tier)	Upgrade	0 bytes
Select Destination			
Installation Type			
Install			
Finish Up			
	Space Required: 24.0KB Remai	ining: 43.4GB	

The software must be installed as a user with administrative privileges on the machine:

```
Figure 3.9. Installer7_DB2.png
```

		Authenticate
	Installer re	equires that you type your password.
	Name:	openlink
	Password:	•••••
▶ Details		
?		Cancel OK

After the driver has been installed you will be prompted for a license file. If a license file already exists on the machine then select the 'use exisiting file' option. A trial (try) or full (buy) license can be obtain by selecting the 'try and buy' option which loads our online try and buy web page:

Figure 3.10. Installer8_DB2.png

1	Select license file
Y	The installation requires a license file (ee_db2_lt.lic) for operation.
,	Press the 'Try or Buy' button to request a license using your browser. You will receive a license as an email attachement.
	Press the 'Use existing License' button if you have already recived a license.
	On the next dialog, press the 'Choose' button to select the license file for use or 'Cancel' to continue without one.

To obtain the trial license you must be a registered user on the OpenLink Web site and login with the username (e-mail address) and password for that user. Click on the 'Shop' link to visit our online shop cart to purchases a full license if required:

Figure 3.11. InstallerD_DB2.png

Click on the 'download license' button to obtain the license file immediately and save to your desktop. Alternatively an auto e-mail will be sent to the registered users e-mail address with a link to their OpenLink Data Space (ODS) where all trial and full license files will be stored in the Briefcase for download at a later date.

Figure 3.12. InstallerE_DB2.png

$\Theta \Theta \Theta$			OpenLink	Product Download Wizard	d	
C +	🕙 http://downlo	oad.openlinks	w.com/download/fir	nal.vsp	© ^	0
post to del.icio.	us Bath Toilets	.lityBath.com	Archive 24 Vanity	Night & Dayn Furniture	Kenroy 5010or Fountain	el
<	B	dowi	Product Dov	vnload		
Do	wnload & Try OD	BC Driver for	r IBM DB2 (Release	6.0) on Mac OS X 10.4 (32	Bit) (Universal)	[
	ac Universal Ins	stall the followi	ing components on y	our Mac OS X 10.4 (32 Bit)) (Universal) machine.	
•Mi	ulti-Threaded ODB	C Driver (Expr	ress Edition) for DB2	6.x - 8.x Client (KByt	res) <u>FTP HTTP HTTPS SFTP</u>	
NO	e, where both Mul	u-inreaded an	na Single-Threaded (iownioads are available you	only need one, not both.	
Ab	out your evaluat	ion:				
Thi An per	s is a licensed pro expiring license fil sonal web-service	duct. To proce le is available for download	ed with your evaluat to download here, or later.	tion you require a license file ne has also been uploaded te	o a	
You you cor one	should shortly re r license file from tinue your evalua was not already	ceive an emai your ODS acc tion. An autom detected.	l containing informat count, how to apply t nated process has cr	ion and directions to retreivi his to your product and eated an ODS account for yo	ing ou if	
You do	r evaluation perio wnloaded this Pr	d is limited to oduct and Re	2 times 15-day tria	periods. You have		
Bu	ODBC Driver fo	or IBM DB2 (R	elease 6.0) on Mac	OS X 10.4 (32 Bit) (Univers	sal)	
Pro	ceed to online sal	es with this pro	oduct, and purchase	a full license.		

Select the license file to be used for the installation:

Figure 3.13. Installer10_DB2.png

OpenLink ODBC Driver (Express Edition) User Guide

000	Choose your license file	2
You should have recei	ved a license file from OpenLink as an atta	achement to an email. Make sure
	Dniversal Data Access Driver	r 🗘 🔍 search
Network	on) ▶ 🔄 Animaterials.html	
Basic Boot	ee_db2_lt.lic	
Eggplant 1		
Eggplant 2		
OpenLink 🔺		
Desktop	-	Name ee_db2_lt.l
root		Size 4 KB
Applications		II Kind Document
New Folder		Cancel Choose

Installation is complete:

21

 Introduction Read Me License Select Destination Installation Type Install Finish Up 	The software was successfully installed
C	Go Back Close

4.1.2 Configuration

To configure an ODBC DSN, run the OpenLink iODBC Administrator located in the /Applications/iODBC folder:

Figure 3.15. DSN0_AdminStart.png

Click on the add button to Choose the ODBC Driver the DSN should be created for:

Figure 3.16. DSN1_AdminStart.png

Data Source	c .	ile Doix	Obbe brivers	connection rooming	macing	About
lame	Descript	ion	Driver			Add
					Co	nfigure
					\subset	Test
An O data	DBC User data provider. A Us	source st er data so	ores information urce is visible on	about how to connect to y to you.	o the indica	ted

Choose the OpenLink DB2 Driver (Express Edition) v6.0 from the list of available drivers:

Figure 3.17. DSN3_SelectDB2Driver.png

-	Choose an ODBC Driver	
	Name OpenLink DB2 Driver (Express Edition OpenLink DB2 Driver (Express Edition	ve ve ve ve ve ve ve ve ve ve ve ve ve v
	(Cancel Finish

In the Data Source tab, select a suitable DSN name and optional description for the Data Source to be created:

	Connection	Options	Preferences	Test
What nam	me do you wai	nt to use to re	fer to this data	source ?
DSN	D	B2 Express	DSN	

The Connection Tab request the minimum paramters required to make a connection to the target database:

Figure 3.19. DSN7_DB2Host.png

(Data Source	Connection	Options	Preferences	Test
0	Which ser	ver do you wan	t connect to	o?	
		Host	192.168.	11.236	
12		Port	50000		
TC		Database	test		
ODEC		User name			
				(Advanced
Cancel	(Finish)			Go Bac	k) Continue

- Host the hostname of the server on which the DB2 database is running
- Port the TCP port on which DB2 listens
- Database a valid DB2 database alias
- Username the username of a valid DB2 user
- Advanced Additional optional configuration paramters:

Table 3.1.

FullyMaterializeLobData

Indicates whether the driver retrieves LOB locators for FETCH operations. The data type of this property is boolean. If the value is true, LOB data is fully materialized within the JDBC driver when a row is fetched. If this value is false, LOB data is streamed. The driver uses locators internally to retrieve LOB data in chunks on an as-needed basis It is highly recommended that you set this value to false when you retrieve LOBs that contain large amounts of data. The default is true.

ResultSetHoldability

	OpenLink ODBC Driver (Express Edition) User Guide	24
	Specifies whether cursors remain open after a commit operation. Valid values are 1 - HOLD_CURSORS_OVER_COMMIT or 2 - CLOSE_CURSORS_AT_COMMIT.	
CliSchema	Specifies the schema of the DB/2 shadow catalog tables or views that are searched wh an application invokes a DatabaseMetaData method.	en
CurrentSchema	Specifies the default schema name that is used to qualify unqualified database objects dynamically prepared SQL statements. This value of this property sets the value in the CURRENT SCHEMA special register on a server other than a DB2 UDB for z/OS server. Do not set this property for a DB2 UDB for z/OS server.	in ,
CurrentSQLID	Specifies: The authorization ID that is used for authorization checking on dynamically prepared CREATE, GRANT, and REVOKE SQL statements. The owner of a table space, database, storage group, or synonym that is created by a dynamically issued CREATE statement. The implicit qualifier of all table, view, alias, and index names specified in dynamic SQL statements.	r
CurrentFunctionPath	Specifies the SQL path that is used to resolve unqualified data type names and function names in SQL statements that are in JDBC programs. The data type of this property is String. For a DB2 UDB for Linux, UNIX and Windows server, the maximum length is 254 bytes. The value is a comma-separated list of schema names. Those names can be ordinary or delimited identifiers.	n s
CurrentLockTimeout	Directs DB2 UDB for Linux, UNIX and Windows servers to wait indefinitely for a loc or to wait for the specified number of seconds for a lock when the lock cannot be obtained immediately. The data type of this property is int. A value of zero means no wait. A value of -1 means to wait indefinitely. A positive integer indicates the number seconds to wait for a lock.	ck • of
JdbcCollection	Specifies the collection ID for the packages that are used by an instance of the DB2 Universal JDBC Driver at run time. The data type of jdbcCollection is String. The default is NULLID.	
CurrentPackageSet	Specifies the collection ID to search for DB2 packages for the DB2 Universal JDBC Driver. The data type of this property is String. The default is NULLID. If currentPackageSet is set, its value overrides the value of jdbcCollection.	
CurrentPackagePath	Specifies a comma-separated list of collections on the server. The DB2 server searches these collections for the DB2 packages for the DB2 Universal JDBC Driver. The precedence rules for the currentPackagePath and currentPackageSet properties follow precedence rules for the DB2 CURRENT PACKAGESET and CURRENT PACKAGE PATH special registers.	s the E
SecurityMechanism	Specifies the DRDA security mechanism. Possible values are: 3 - User ID and password 4 - User ID only, 7 - User ID, encrypted password, 9 - Encrypted user ID and password 11 - Kerberos. If this property is specified, the specified security mechanism is the onl mechanism that is used. If the security mechanism is not supported by the connection, exception is thrown.	rd, 1, ly an
KerberosServerPrincipal	For a data source that uses Kerberos security, specifies the name that is used for the data source when it is registered with the Kerberos Key Distribution Center (KDC).	ita
DeferPrepares	Specifies whether to defer prepare operations until run time. The data type of this property is boolean.	
ClientUser	Specifies the current client user name for the connection. This information is for client accounting purposes. Unlike the connection user name, this value can change during a connection. For a DB2 UDB for Linux, UNIX and Windows server, the maximum len is 255 bytes.	t I Ig th
ClientWorkstation	Specifies the workstation name for the current client for the connection. This informat is for client accounting purposes. This value can change during a connection. The data type of this property is String. For a DB2 UDB for Linux, UNIX and Windows server, the maximum length is 255 bytes.	ion ı ,
ClientApplicationInformation	Specifies application information for the current client for the connection. This information is for client accounting purposes. This value can change during a connection. The data type of this property is String. For a DB2 UDB for Linux, UNIX and Windows server, the maximum length is 255 bytes.	-
ClientAccountingInformation	Specifies accounting information for the current client for the connection. This information is for client accounting purposes. This value can change during a	

connection. The data type of this property is String. For a DB2 UDB for Linux, UNIX and Windows server, the maximum length is 255 bytes.

As indiacted above the paramters of the options and preferences tabs are not required for a basic connection:

Figure 3.20	. DSN10_	_DB2Options.png
-------------	----------	-----------------

	Row buffer size 60 Read only connection
PL	Jet options
	 Drop catalog from meta calls Drop schema from meta calls No support of quoted identifier SQL statistic disabled
	No support of search string escape Patch of NULL size of SQL_CHAR 0
ADEC	

- *Row Buffer Size* This attribute specifies the number of records to be transported over the network in a single network hop. Values can range from 1 to 99.
- *Hide Login Dialog* Suppress the ODBC "Username" and "Password" login dialog box when interacting with your ODBC DSN from within an ODBC compliant application.
- *Read Only connection* Specify whether the connection is to be "Read-only". Make sure the checkbox is unchecked to request a "Read/Write" connection.
- *Drop Catalog from Meta calls* Enable this option to have the catalog name not appear for tables, views and procedures when requesting database meta-data.
- Drop Schema from Meta calls Enable this option to have the schema-name not appear for tables, views and procedures when requesting database meta-data.
- *SQLStatistics disabled* Check this box to have SQLStatistics() return an empty resultset. Use this if the underlying database does not support retrieving statistics about a table (e.g. what indexes there are on it).
- No support of quoted identifier If it is set, the call SQLGetInfo /bin/edit/Main/SQLGetInfo?topicparent=Main.UdaEeInstallConfigDB2 for 'SQL_IDENTIFIER_QUOTE_CHAR' will return the space (" "). It can be used if DBMS doesn't support quoted SQL like select * from "account"
- No support of search string escape If it is set, the call SQLGetInfo

for 'SQL_LIKE_ESCAPE_CLAUSE' will return the space (" "). It can be used if DBMS doesn't support SQL escape patterns

- *Patch of NULL size of SQL_CHAR* If set this option overrides the size of SQL_CHAR column type returned by the database with the value set in the text box (in bytes). With the default value of 0 the driver uses the size returned by the database.
- *SQL_DBMS Name* Manually override the SQLGetInfo (SQL_DBMS_NAME) response returned by the driver. This is know to be required for products like Microsoft InfoPath for which the return the value should be "SQL Server".

Figure 3.21. DSN11_DB2Preferences.png

Data Sou	rce Connection	Options	Preferences	Test
Initia	lization SQL			Brow
Curs	or sensitivity	.ow	•	
Max	rows override 0			
	isable autocommit			
	isable rowset size l	limit		
	efer fetching of lon	ig data		
	Iultiple Active State	ments Emula	ition	

- *Initialization SQL* Lets you specify a file containing SQL statements that will be run against the database upon connection, automatically.
- *Cursor Sensitivity* Enables or disables the row version cache used with dynamic cursors. When dynamic cursor sensitivity is set high, the Cursor Library calculates checksums for each row in the current rowset and compares these with the checksums (if any) already stored in the row version cache for the same rows when fetched previously. If the checksums differ for a row, the row has been updated since it was last fetched and the row status flag is set to SQL_ROW_UPDATED. The row version cache is then updated with the latest checksums for the rowset. From the user's point of view, the only visible difference between the two sensitivity settings is that a row status flag can never be set to SQL_ROW_UPDATED when the cursor sensitivity is low. (The row status is instead displayed as SQL_ROW_SUCCESS.) In all other respects, performance aside, the two settings are the same deleted rows don't appear in the rowset if their keys fall within the span of the rowset. If your application does not need to detect the row status SQL_ROW_UPDATED, you should leave the 'High Cursor Sensitivity' checkbox unchecked, as performance is improved. The calculation and comparison of checksums for each row fetched carries an overhead. If this option is enabled, the table oplrvc must have been created beforehand using the appropriate script for the target database.
- *MaxRows Override* Allows you to define a limit on the maximum number of rows to returned from a query. The default value of 0 means no limit.
- *Disable AutoCommit* Change the default commit behaviour of the OpenLink Lite Driver. The default mode is AutoCommit mode (box unchecked).
- *Disable Rowset Size Limit* Disable the limitation enforced by the cursor library. The limitation is enforced by default to prevent the Driver claiming all available memory in the event that a resultset is generated from an erroneous query is very large. The limit is normally never reached.
- *Defer fetching of long data* Defer fetching of LONG (BINARY, BLOB etc.) data unless explicitly requested in query. This provides significant performance increase when fields in query does not include LONG data fields.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.

Click on the 'Test Data Source' button to make a connection to the database to verify connectivity:

Figure 3.22. DSN12_DB2Test.png

Data Sou	urce Name: DB2 Ex	press DSN			
Descript	ion: My Test DSN				
URI Strin	g: {ServerName=1	92.168.11.236	PortNumber	=50000 Datab	aseName=FROTH DF
FetchBuf	ferSize: 60	52.100.11.250,	roratamber	-50000,54445	usertunie – Erto III Be
Nologin	Box: No				
THOLD SHIT					
MaxRow	s: 0				
MaxRow	s: 0 Commit: No				

Enter a vaild username and pasword for the database:

Identity	Connection	Options	Preferences	About
	DSN :	(File DSN)	
Usernar	ne ei	mma		
Passwo	rd 💽	•••••		

A successful connection to the database has been made:

Figure 3.24. DSN14_DB2Success.png

DSN: DB2 Express DSN
The connection DSN was tested successfully, and can be used at this time.

4.2 OpenLink ODBC Driver for DB2 (Express Edition) for Windows

4.2.1 Installation

The OpenLink ODBCDriver for DB2 (Express Edition) is distributed as a Windows MSI installer. Simply double click the installer 'ntl6edb2.msi' to commence the installation:

Figure 3.25. EEWindb2inst00.png



Installer Welcome Dialog for the OpenLink ODBCDriver for DB2 (Express Edition):

Figure 3.26. EEWindb2inst01.png



Please read the software license agreement and accept before continuing your installation:

Figure 3.27. EEWindb2inst02.png

ense Agreement You must agree with the license agre	eement below to proc	ceed.	Q
OPENLINK SOFTWARE	LICENSE AGR	EEMENT	-
TYPE			
License for OpenLink Universal Dat	a Access Driver Suit	e.	
QUANTITY			
One or more copies of this product I connections, maintained by the serv license options shall be reflected in ;	imited to 2 concurren ver based OpenLink I your registration key.	it users, and 4 concurre License Manager. Addit	ent tional
USE			
You (an entity or a person) can mak ''Software'') in the quantity stated at	e use of the software bove if you meet the l	e identified above (the following conditions:	
OnenLink Server Components (One	nt ink Request Broke	er & OnenLink Databasi	e 🗾
I accept the license agreement			

Before installation, you will be prompted for a license file. If a license file already exists on the machine, then select the 'use exisiting file' option. A trial (try) or full (buy) license can be obtained by selecting the 'try and buy' option which loads OpenLink's online try and buy web page:

Figure 3.28. EEWindb2inst03.pn	Figure 3.28	. EEWindb2inst03.	png
--------------------------------	-------------	-------------------	-----

🙀 OpenLink D	B2 ODBC Driver (Express	Edition) Setup			<u> </u>
Product Li Select th	cense le folder containing the produc	t license.			ø
Install the	This product requires a proc automatically place in the c 'ee_db2_lt.lic' license file cli in. e license file from this folder:	duct license for us orrect location for ck the 'Browse' bi	e, which the ins you. If you alrea utton and locate	staller can ady have a 9 the folder it is	
C:V				Browse	
Alternativ to reque:	vely, click the 'Try & Buy' butto st a license, if you don't have o 't want to install a license file of	n to use your Wel one yet.	b browser	Try & Buy]
I I dor	i't want to install a license file ri	ight now.			
]	< Back	Next >	Can	cel

To obtain the trial license, you must be a registered user on the OpenLinkWeb site and login with the username (e-mail address) and password for that user name. Click on the 'Shop' link to visit OpenLink's online shop cart to purchase a full license, if required.

Click on the 'download license' button to immediately obtain the license file and save it to your desktop. Alternatively, an auto-generated e-mail will be sent to your registered user e-mail address with a link to your OpenLinkData Space (ODS), which contains all trial and full licenses in the Briefcase for download at a later date.



Select the license file to be used for the installation:

Figure 3.30. EEWindb2inst05.png

CA_LIC DB2	My Documents	🗀 Perl 🛄 Program Files	
DB2LOG	My Titles	Progress	
Geistkraft	NSR	imp	
IFMXDATA	🚞 OpenEdge	DVBNET	
ISM	🧰 OpenLink		

Choose to perform a custom, typical or complete installation of the driver:

30



Select the features to be installed:

Figure 3.32. EEWindb2inst07.png

OpenLink DB2 ODBC Driver (Express Edition) Setup	_ 🗆 🗙
Select Features Please select which features you would like to install.	Ĩ
DB2 Samples	This feature requires 1696KB on your hard drive. It has 2 of 2 subfeatures selected. The subfeatures require 2104KB on your hard drive.
Description:	_
Disk Cost Reset < Back N	ext > Cancel

Click the install button to begin installation of the components:

Figure 3.33. EEWindb2inst12.png

뤻 OpenLink DB2 ODBC Driver (Express Edition) Setup	
Ready to Install The installer is ready to begin the Custom installation.	
Click Install to begin the installation. If you want to review or change any of your ins settings, click Back. Click Cancel to exit the installer.	tallation
< Back Install (Cancel

Installation in progress:

Figure 3.34. EEWindb2inst11.png

🞲 OpenLink DB2 ODBC Driver (Express Edition) Setup
Installing OpenLink DB2 ODBC Driver (Express Edition)
Please wait while the installer installs OpenLink DB2 ODBC Driver (Express Edition). This may take several minutes.
Status:
Cancel

The software installation is complete and ready for use:

Figure 3.35. EEWindb2inst10.png
OpenLink ODBC Driver (Express Edition) User Guide



4.2.2 Configuration

To configure an ODBCDSN, run the ODBCAdministrator located in the Administrative Tools section of the Control Panel:

Figure 3.36. EEWindb2conf01.png

Click on the Drivers tab to confirm the OpenLinkDB2 ODBCDriver [Express Edition][6.0] has been successfully installed:

Figure	3.37.	EEWindb2conf02.p	ong
--------	-------	------------------	-----

Name	Version	^
OpenLink DB2 ODBC Driver (Express Edition) (Unicode) [6.0]	1.00.00.00	
UpenLink DBZ UDBL Driver (Express Edition) (6.0)	1.00.00.00	
UpenLink Firebird ODBC Driver (Express Edition) (Unicode) [6.0]	1.00.00.00	
OpenLink Filebild ODBC Driver (Express Edition) [6.0]	F.00.00.00	
OpenLink Genetic ODBC Driver (Onicode) [0.0]	6.00.00.00	
OpenLink derienc ODBC Driver (Express Edition) (Unicode) (6.0)	1 00 00 00	
OpenLink Informix ODBC Driver (Express Edition) [6.0]	1.00.00.00	
OpenLink Internal ODBC Driver (Express Edition) (Unicode) (6.0)	1 00 00 00	
OpenLink Ingres ODBC Driver (Express Edition) (6.0)	1.00.00.00	v
	\$	-

From either the User or System DSN tabs, click on the Add button and select the OpenLinkDB2 ODBCDriver [Express Edition][6.0] from the list presented:

Figure 3.38. EEWindb2conf03.png

Create New Data Source	
	Select a driver for which you want to set up a data source. Name
	K Back Finish Cancel

In the Data Source tab, select a suitable DSN name and optional description for the Data Source to be created:

Figure 3.39. EEWindb2conf04.png

OpenLink Single Tier DS	SN Configuration 🛛 🛛 🔀
	This wizard will help you create an ODBC data source that you can use to connect to a remote Database. What name do you want to use to refer to the data source? Name: DB2 Express Demo How do you want to describe the data source? Description:
	< Back Next > Cancel

The Connection tab requests the minimum parameters required to make a connection to the target database:

Figure 3.40. EEWindb2conf05.png

OpenLink Single Tier D	SN Configuration		×
	Which server do you Host Port Database	want to connect to? opluswin64b 50000 WIN64IA Advanced.	
OPENLINK SOFTWARE	Connect now to Login ID Password:	verify that all settings are correct. db2admin ******* * Back Next > Cance	

- *Host* : This is the fully qualified hostname or IP address of the machine hosting the DBMS you wish to access, e.g., dbms-server.example.com, or 192.168.155.123. Any hostname which will be resolved by your local DNS is acceptable.
- Port : This is the port on which DB2 is listening
- Database : This is the name of a valid DB2 database alias to which you want to connect
- Login ID : This is a valid user for the DB2 database
- Password : This is a valid password for the DB2 database

Click next to verify that all settings are correct or uncheck the check box to delay testing to a later stage.

The advanced button displays additional optional parameters that can be configured:

	Ydiac	
FullyMaterializeLobData	true	
ResultSetHoldability		
CliSchema		
CurrentSchema		
CurrentSQLID		
CurrentFunctionPath		
CurrentLockTimeout		
JdbcCollection	NULLID	
	III	>
	ResultSetHoldability CliSchema CurrentSchema CurrentSQLID CurrentFunctionPath CurrentLockTimeout JdbcCollection	ResultSetHoldability CliSchema CurrentSchema CurrentSQLID CurrentFunctionPath CurrentLockTimeout JdbcCollection NULLID

Figure 3.41. EEWindb2conf06.png

Table 3.2.	
FullyMaterializeLobData	Indicates whether the driver retrieves LOB locators for FETCH operations. The data type of this property is boolean. If the value is true, LOB data is fully materialized within the JDBC driver when a row is fetched. If this value is false, LOB data is streamed.
ResultSetHoldability	Specifies whether cursors remain open after a commit operation. Valid values are 1-HOLD_CURSORS_OVER_COMMIT or 2 - CLOSE_CURSORS_AT_COMMIT.
CLiSchema	Specifies the schema of the DB2 shadow catalog tables or views that are searched when an application invokes a DatabaseMetaData method.
CurrentSchema	Specifies the default schema name that is used to qualify unqualified database objects in dynamically prepared SQL statements. This value of this property sets the value in the CURRENT SCHEMA special register on a server other an a DB2 UDB for z/OS server. Do not set this property for a DB2 UDB for z/OS server.
CurrentSQLID	Specifies the authorization ID that is used for authorization checking on dynamically prepared CREATE, GRANT, and REVOKE SQL statements. The owner of a table space, database, storage group, or synonym that is created by a dynamically issued CREATE statement. The implicit qualifier of all table, view, alias, and index names specified in dynamic SQL statements.
CurrentFunctionPath	Species th SQL path that is used to resolve unqualified data type names and function names in SL statements that are in JDBC programs. The data type of this property is String. For a DB2 UDB for Linux, UNIX, and Windows server, the maximum length is 254 bytes. The value is a comma-separated list of schema names. Those names can be ordinary or delimited identifiers.
CurrentLockTimeout	Directs DB2 UDB for Linux, UNIX, and Windows servers to wait indefinitely for a lock or to wait for the specified number of seconds for a lock when the lock cannot be obtained immediately. The data type of this property is Int. A value of zero means no wait. A value of -1 means to wait indefinitely. A postive integer indicates the number of seconds to wait for a lock.
JdbcCollection	Specifies the collection ID for the packages that are used by an instance of the DB2 Universal JDBC Driver at run time. The data type of jdbcCollection is String. The default is NULLID.
CurrentPackageSet	Specifies the collection ID to search for DB2 packages for the DB2 Universal JDBC Driver. The data type of this property is String. The default is NULLID. If currentPackageSet is set, its value overrides the value of jdbcCollection.
CurrentPackagePath	Species a comma-separated list of collections on the server. The DB2 server searches these collections for the DB2 packages for the DB2 Universal JDBC Driver. The precedence rules for the currentPackagePath and currentPackageSet properties follow the precedence rules for the DB2 CURRENT PACKAGESET and CURRENT PACKAGE PATH special registers.
SecurityMechanism	Specifies theDRDA security mechanism. Possible values are: 3 - User ID and password, 4 - User ID only, 7 - User ID, encrypted password, 9 - Encrypted user ID and password, 11 - Kerberos. If this property is specified, the specified security mechanism is the only mechanism that is used. If the security mechanism is not supported by the connection, an exception is thrown.
KerberosServerPrincipal	For a data source that uses Kerberos security, this specifies the name that is used for the data source when it is registered with the Kerberos Key Distribution Center (KDC).
DeferPrepares	Specifies whether to defer prepare operations until run time. The data type of this property is boolean.
ClientUser	Specifies the current client user name for the connection. This information is for client accounting purposes. Unlike the connection user name, this value can change during a connection. For a DB2 UDB for Linux, UNIX, and Windows servers, the maximum length is 255 bytes.
ClientWorkstation	Specifies the workstation name for the current client for the connection. This information is for client accounting purposes. This value can change during a connection. The data type of this property is String. For a DB2 UDB for Linux, UNIX, and Windows servers, the maximum length is 255 bytes.

OpenLink ODBC Driver (Express Edition) User Guide Specifies the application information for the current client for the connection. This information is for client accounting purposes. This value can change during a connection. ClientApplicationInformation The data type of this property is String. For a DB2 UDB for Linux, UNIX, and Windows servers, the maximum length is 255 bytes. Specifies accounting information for the current client for the connection. This information is for client accounting purposes. This value can change during a connection. ClientAccountingInformation The data type of this property is String. For a DB2 UDB for Linux, UNIX, and Windows servers, the maximum length is 255 bytes.

As indicated above, the parameters on the options and preferences tabs are not required for a basic connection.

Figure 3.42. EEWindb2co	onf07.png	
OpenLink Single Tier D	SN Configuration	×
	Additional parameters: Drop Catalog name from DatabaseMetaData calls Drop Schema name from DatabaseMetaData calls Return an empty ResultSet for SQLStatistics Disable support of quoted identifier Disable support of search pattern escape Patch null size of SQLChar on: 4096	
	< Back Next > Cance	1

- Drop Catalog name from DatabaseMetaData calls Enable this option to have the catalog name not appear for tables, views, and procedures when requesting database meta-data.
- Drop Schema name from DatabaseMetaData calls Enable this option to have the schema-name not appear for tables, views, and procedures when requesting database meta-data.
- Return an empty ResultSet for SQLStatistics Check this box to have SQLStatistics() return an empty resultset. Use this if the underlying database does not support retrieving statistics about a table, e.g., what indexes there are on it.
- Disable support of quoted identifier If it is set, the call SQLGetInfo for 'SQL_IDENTIFIER_QUOTE_CHAR' will return the space (" "). It can be used if the DBMS does not support quoted SQL, e.g., select * from "account."
- Disable support of search pattern escape If it is set, the call SQLGetInfo for 'SQL LIKE ESCAPE CLAUSE' will return the space (" "). It can be used if the DBMS does not support SQL escape patterns.
- Patch of NULL size of SOL CHAR If set, this option overrides the size of SQL CHAR column type returned by the database with the value set in the text box (in bytes). With the default value of 0, the driver uses the size returned by the database.

Figure 3.43. EEWindb2conf08.png

OpenLink ODBC Driver (Express Edition) User Guide

OpenLink Single Tier D	SN Configuration
	Additional connect parameters: Read-only connection Defer fetching of long data Disable interactive login Row buffer size: 60 Max rows override: 0 Initial SQL: Dynamic cursor sensitivity: Low Enable logging to the log file:
	< Back Next > Cancel

- *Read Only connection* Specify whether the connection is to be "Read-only". Make sure the checkbox is unchecked to request a "Read/Write" connection
- *Disable Interactive Login* Suppress the ODBC "Username" and "Password" login dialog box when interacting with your ODBC DSN from within an ODBC compliant application.
- *Row Buffer Size* This attribute specifies the number of records to be transported over the network in a single network hop. Values can range from 1 to 99.
- *Max rows override* Allows you to define a limit on the maximum number of rows to be returned from a query. The default value of 0 means no limit.
- *Initial SQL* Lets you specify a file containing SQL statements that will be automatically run against the database upon connection.
- Dynamic Cursor Sensitivity Enables or disables the row version cache used with dynamic cursors. When dynamic cursor sensitivity is set high, the Cursor Library calculates checksums for each row in the current rowset and compares these with the checksums (if any) already stored in the row version cache for the same rows when fetched previously. If the checksums differ for a row, the row has been updated since it was last fetched, and the row status flag is set to SQL_ROW_UPDATED. The row version cache is then updated with the latest checksums for the rowset. From the user's point of view, the only visible difference between the two sensitivity settings is that a row status flag can never be set to SQL_ROW_UPDATED, when the cursor sensitivity is low. (The row status is instead displayed as SQL_ROW_SUCCESS.) In all other respects, performance aside, the two settings are the same deleted rows do not appear in the rowset if their keys fall within the span of the rowset. If your application does not need to detect the row status SQL_ROW_UPDATED, you should leave the 'High Cursor Sensitivity' checkbox unchecked, as performance is improved. The calculation and comparison of checksums for each row fetched carries an overhead. If this option is enabled, the table oplrvc must have been created beforehand using the appropriate OpenLink script for the target database.

* *Enable logging to the log file:*- Specifies the full path to a text file. If the associated checkbox is checked, and a file is passed, the driver will log auto-generate a clientside ODBCtrace.

Figure 3.44. EEWindb2conf09.png

OpenLink ODBC Driver (Express Edition) User Guide

OpenLink Single Tier D	SN Configuration
	Additional connect compatibility parameters: Enable Microsoft Jet engine options Disable Autocommit Disable rowset size limit Multiple Active Statements Emulation SQL_DBMS_NAME:
	< Back Next > Cancel

- *Disable AutoCommit* Change the default commit behaviour of the OpenLink Driver. The default mode is AutoCommit (box unchecked).
- *Disable Rowset Size Limit* Disable the limitation enforced by the cursor library. The limitation is enforced by default to prevent the Driver claiming all available memory in the event that a resultset generated from an erroneous query is very large. The limit is normally never reached.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.
- *SQL_DBMS Name* Manually override the SQLGetInfo(SQL_DBMS_NAME) response returned by the driver. This is required for products like Microsoft InfoPath for which the return value must be "SQL Server".

Click on the Test Data Sourcebutton to verify that a successful connection can be made to the database.

Figure 3.45. EEWindb2conf10.png

OpenLink Single Tier D	SN Configuration	×
	A new ODBC Datasource will be created with the following configuration:	
	OpenLink DB2 Driver (Express Edition) Version: 1.0 File: C:\Program Files\OpenLink Software\UDA\bin\ntl5eedb2.dll Running connectivity tests Attempting connection Connection established Verifying option settings Actual database is (DB2/NT64) Disconnecting from server TESTS COMPLETED SUCCESSFULLY!	
OPENLINK SOFTWARE	Test Data Source	

5 Chapter 4. OpenLink ODBC Driver for Firebird (Express Edition)

Table of Contents

- OpenLink ODBC Driver for Firebird (Express Edition) for Mac OS X
 - ♦ Installation Guide
 - ♦ Configuration
- OpenLink ODBC Driver for Firebird (Express Edition) for Windows
 - ♦ Installation
 - Configuration

5.1 OpenLink ODBC Driver for Firebird (Express Edition) for Mac OS X

5.1.1 Installation Guide

The OpenLink ODBC Driver for Firebird (Express Edition) is distributed as a Disk image (DMG) file. Simply double click on the disk image 'mul6efrb.dmg' to extract the installer mpkg file:

Figure 4.1. ee-frb-00.png

000	Desktop		\bigcirc
		Q	
 gbiggs' iBook G4 Network Macintosh HD 	≜ 0		
I Desktop	×	mulberrb.amg	-
rybiggs garrybiggs	TE)) •	+
17 ite	ms, 35.4 GB availa	able	11.

Double click on the mpkg file to run the installer and following the on screen instriuction as indicated below to complete the installation:

Figure 4.2. ee-frb-01.png 000 OpenLink-Firebird-EE-UDA6.0-MacOSX-10.4-Universal 88 🔳 💷 a - 4 h 4 🖳 gbiggs' iBook G4 Network . Macintosh HD OpenLink-Firebird-ExpressEdition.mpkg OpenLink-Firebird-EE-UDA6.0-MacOSX-10.4-Universal Desktop ¥ 1 item, 34.9 MB available XIII

Installer Welcome Dialog for the OpenLink ODBC Driver for Firebird (Express Edition):

Figure 4.3. ee-frb-02.png



Please review the readme file for installation requirements and known issues:

Figure 4.4. ee-frb-03.png 000 🥪 Install OpenLink Express Edition driver for Firebird Important Information Release 6.0, April 2006 Introduction This installation program will install the following Universal Binary Read Me Format components: License OpenLink Express Edition for Firebird Select Destination OpenLink iODBC Driver Manager Installation Type OpenLink iODBC Administrator OpenLink iODBC Sample Program Install Finish Up **Minimum System Requirements** Mac OS X 10.3.9 or above **Known ODBC-Compliant Application Issues** à REALbasic variants through Version 4.0 were not fully ODBC-¥ OCV U -1 -11 1 Print... Go Back Save... Continue 10

Please read the software license agreement before continuing your installation:

	Software License Agreement
Introduction	English
🖯 Read Me	OpenLink Software License Agreement
🖯 License	License for Express Edition for Firebird
Select Destination	
Installation Type	One or more copies of this product limited to 2 concurrent connections
Install	enforced by the Express Edition for Firebird License Manager.
Finish Up	Firebird License file.
	<u>Use</u> You (an entity or a person) can make use of the software identified above (the "Software") in the quantity stated above if you meet the following conditions:
	OpenLink Client Components (Express Edition for Firebird)
	You must acquire one copy of the software for each client on which

Select destination volume for driver installation:

Figure 4.6. ee-frb-05.png



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c 1 . o 4

Choose to perform a custome or default installation of the driver:

E	asy Install on "Macintosh HD"
Introduction	
⊖ Read Me	Click Upgrade to perform a basic installation of
License	HD."
Select Destination	
Installation Type	
Install	
Finish Up	

If you chose the custom option select which of the components below are to be installed:

	Custom Install on "Macintosh HD"		
	Package Name	Action	Size
Introduction	► ICOBC Driver Manager and SDK	Ungrade	0 bytes
Read Me	Express Edition driver for Firebird	Install	5.4MB
) License	Online Documentation (Single Tier)	Upgrade	0 bytes
Select Destination			
Installation Type			
Install			
Finish Up			
	Space Required: 5.4MB Remai	ining: 35.4GB	1

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The Software must be installed as a user with Administrative privileges on the machine:

Figure 4.9. ee-frb-08.png

-		Authenticate	
 Introduc Read Me License Select D 		Installer requires that you type your password. Name: gbiggs	Size O bytes O bytes 5.4MB O bytes
 Select D Installat Install Finish U; 	 Details 	Password: Cancel OK	
		Space Required: 5.4MB Remaining: 35.40	38
		(Fasy Install) Go Back	Upgrade

After the driver has been installed you will be prompted for a license file. If a license file already exists on the machine then select the 'use exisiting file' option. A trial (try) or full (buy) license can be obtain by selecting the 'try and buy' option which loads our online try and buy web page:

Figure 4.10. ee-frb-09.png

0	Select license file
Y	The installation requires a license file (ee_frb_lt.lic) for operation.
	Press the 'Try or Buy' button to request a license using your browser. You will receive a license as an email attachement
	Press the 'Use existing License' button if you have already recived a license.
	On the next dialog, press the 'Choose' button to select the license file for use or 'Cancel' to continue without one.

To obtain the trial license you must be a registered user on the OpenLink Web site and login with the username (e-mail address) and password for that user. Click on the 'Shop' link to visit our online shop cart to purchases a full license if required:



Universal Data Access Drivers Download

You have selected Single-Tier (Express Edition) ODBC Driver for Firebird (Release 6.0) for use on Mac OS X 1

Try Single-Tier (Express Edition) - Please Login	Buy Single-Tier (Express Edition)
To proceed you must login. You will receive a temporary license so that you can evaluate this product. Email: Password: Sign-In	You can proceed directly to online sales with this product to purchase a full license. Shop
Forgotton your password? Don't have an account? Register	

Go back to the start to download more software.

© 2005 OpenLink Software

Click on the 'download license' button to obtain the license file immediately and save to your desktop. Alternatively an auto e-mail will be sent to the registered users e-mail address with a link to their OpenLink Data Space (ODS) where all trial and full license files will be stored in the Briefcase for download at a later date.

Figure 4.12. ee-frb-11.png

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Select the license file to be used for the installation:

Figure 4.13. ee-frb-12.png

	licenses	Q search
Network	Name	Date Modified
Macintosh HD	ee_trb_it.lic	28/06/2006
OpenLink 🔺		
Desktop		
root		
Applications		
Documents		

Installation is complete:



5.1.2 Configuration

To configure an ODBC DSN, run the OpenLink iODBC Administrator located in the /Applications/iODBC folder:

Figure 4.15. ee-frb-14.png

OpenLink ODBC Driver (Express Edition) User Guide

000	Applications	0
	Q Q	
gbiggs' iBook G4	Name A	Date Modified 22 October 2005, 20:13 Today, 16:51
OpenLink-Fi Desktop garrybiggs	iODBC Administrator iODBC Demo iODBC Demo Unicode iODBC Test Unicode.command	Today, 16:51 Today, 16:51 Today, 16:51 9 June 2006, 16:21
Applications Documents Movies	iPhoto iSync iTunes	22 October 2006, 12:15 30 June 2006, 12:15
Music Pictures	iWork	22 October 2005, 18:33

Click on the add button to Choose the ODBC Driver the DSN should be created for:

User DSN	System DSN File DSN	ODBC Drivers	Connection Pooling	Tracing About
r Data Sourc	es			_
lame	Description	Driver		Add
				Remove
				Carfana
				Configure
				Test
An data	ODBC User data source s a provider. A User data s	stores information ource is visible on	about how to connect to ly to you.	o the indicated
~				

Choose the OpenLink Firebird Driver (Express Edition) v6.0 from the list of available drivers:

Figure 4.17. ee-frb-16.png

49

Choose an ODBC Driver

	Name
	OpenLink Firebird Driver (Express Edition) v6.0
	OpenLink Firebird Driver (Express Edition)(Unicode) v6.0
	OpenLink Informix Driver (Express Edition) v6.0
NOTOD ON A	OpenLink Informix Driver (Express Edition)(Unicode) v6.0
	OpenLink JDBC Lite Driver (Unicode) v6.0
nousual as	OpenLink JDBC Lite Driver v6.0
	OpenLink MySQL 3.x Lite Driver (Unicode) v6.0
Se all	OpenLink MySQL 3.x Lite Driver v6.0
N/A	OpenLink PostgreSQL Lite Driver (Unicode) v6.0
MAR	OpenLink PostgreSQL Lite Driver v6.0
	Annulials COL Communities Dairon (United a) of A

In the Data Source tab, select a suitable DSN name and optional description for the Data Source to be created:

Figure 4.18. ee-frb-17.png

Data Source	Connection	Options	Preferences	Test
What nam	ie do you want	to use to re	fer to this data	source ?
DSN	fire	bird_dsn		
Descrip	tion			

The Connection Tab request the minimum paramters required to make a connection to the target database:

Figure 4.19. ee-frb-18.png

(Data Source	Connection	Options	Preferences	Test
0	Which ser	ver do you wan	t connect to	o?	
		Host	192.168.	0.169	
		Port	3050		
FC		DatabasePath	c:\Progra	m Files\Fireb	ird\Firebird_
		<mark>User name</mark>	sysdba		
ODEC				(Advanced
Cancel	Finish			Go Bac	Continue

- Hostname the hostname of the server on which Firebird is running
- PortName the port on which the Firebird instance listens
- Database the name of a valid database
- Username the name of a valid Firebird user
- Advanced additional optional configuration parameters:

Table 4.1.	
BlobBufferLength	Set BLOB buffer length. This value influences the performance when working with BLOB fields.
BlobBufferSize	Size of the BLOB buffer in bytes.
BuffersNumber	Number of cache buffers that should be allocated for this connection, should be specified for ClassicServer instances; SuperServer has a server-wide configuration parameter.
DefaultIsolation	Set the default transaction isolation level as string. Following strings are allowed: 'TRANSACTION_READ_COMMITTED', 'TRANSACTION_REPEATABLE_READ', 'TRANSACTION_SERIALIZABLE'
Encoding	Set encoding for connections produced by this data source.
LoginTimeout	Set login timeout for this datasource in seconds.
RoleName	SQL role to use.
SocketBufferSize	The socket buffer-size in bytes.
SqlDialect	SQL dialect of the client.
TimestampUsesLocalTimezone	'true' if the JayBird 1.0 handling of the calendar in corresponding setters. This is also compatible with MySQL calendar treatment.
UseStandardUdf	'true' if driver should assume that standard UDFs are installed.
UseStreamBlobs	'true' if stream blobs should be created, otherwise 'false'
UseTranslation	Path to the character translation table.
CharSet	Character set for the connection. Similar to encoding property, but accepts Java names instead of Firebird ones.

As indiacted above the paramters of the options and preferences tabs are not required for a basic connection:

Figure 4.20. ee-frb-19.png

	Row buffer size 60 Read on	in dialog ly connection
The	Jet options	
	 Drop catalog from meta calls Drop schema fro No support of quoted identifier SQL statistic disa 	m meta calls bled
L'	 No support of search string escape Patch of NULL size of SQL_CHAR 	
ODEC	SQL DBMS name	

- *Row Buffer Size* This attribute specifies the number of records to be transported over the network in a single network hop. Values can range from 1 to 99.
- *Hide Login Dialog* Suppress the ODBC "Username" and "Password" login dialog box when interacting with your ODBC DSN from within an ODBC compliant application.
- *Read Only connection* Specify whether the connection is to be read-only. Make sure the checkbox is unchecked to request a read/write connection.
- *Drop Catalog from meta-calls* Enable this option to have the catalog name not appear for tables, views and procedures when requesting database meta-data.
- *Drop Schema from meta calls* Enable this option to have the schema-name not appear for tables, views and procedures when requesting database meta-data.
- *SQLStatistics disabled* Check this box to have SQLStatistics() return an empty resultset. Use this if the underlying database does not support retrieving statistics about a table (e.g. what indexes there are on it).
- *No support of quoted identifier* If it is set, the call SQLGetInfo for 'SQL_IDENTIFIER_QUOTE_CHAR' will return the space (" "). It can be used if DBMS doesn't support quoted SQL like select * from "account"
- *No support of search string escape* If it is set, the call SQLGetInfo for 'SQL_LIKE_ESCAPE_CLAUSE' will return the space (" "). It can be used if DBMS doesn't support SQL escape patterns
- *Patch of NULL size of SQL_CHAR* If set this option overrides the size of SQL_CHAR column type returned by the database with the value set in the text box (in bytes). With the default value of 0 the driver uses the size returned by the database.
- *SQL_DBMS Name* Manually override the SQLGetInfo(SQL_DBMS_NAME) response returned by the driver. This is know to be required for products like Microsoft InfoPath for which the return the value should be "SQL Server".

Figure 4.21. ee-frb-20.png

OpenLink ODBC Driver (Express Edition) User Guide

Initialization SQL Brows Cursor sensitivity Low : Max rows override 0 Disable autocommit Disable rowset size limit Disable rowset size limit Defer fetching of long data	
Cursor sensitivity Low : Max rows override 0 Disable autocommit Disable rowset size limit Defer fetching of long data	se
Max rows override 0 Disable autocommit Disable rowset size limit Defer fetching of long data	
 Disable autocommit Disable rowset size limit Defer fetching of long data 	
 Disable rowset size limit Defer fetching of long data 	
Defer fetching of long data	
Multiple Active Statements Emulation	

- *Initialization SQL* Lets you specify a file containing SQL statements that will be run against the database upon connection, automatically.
- *Cursor Sensitivity* Enables or disables the row version cache used with dynamic cursors. When dynamic cursor sensitivity is set high, the Cursor Library calculates checksums for each row in the current rowset and compares these with the checksums (if any) already stored in the row version cache for the same rows when fetched previously. If the checksums differ for a row, the row has been updated since it was last fetched and the row status flag is set to SQL_ROW_UPDATED. The row version cache is then updated with the latest checksums for the rowset. From the user's point of view, the only visible difference between the two sensitivity settings is that a row status flag can never be set to SQL_ROW_UPDATED when the cursor sensitivity is low. (The row status is instead displayed as SQL_ROW_SUCCESS.) In all other respects, performance aside, the two settings are the same deleted rows don't appear in the rowset if their keys fall within the span of the rowset. If your application does not need to detect the row status SQL_ROW_UPDATED, you should leave the 'High Cursor Sensitivity' checkbox unchecked, as performance is improved. The calculation and comparison of checksums for each row fetched carries an overhead. If this option is enabled, the table oplrvc must have been created beforehand using the appropriate script for the target database.
- *MaxRows Override* Allows you to define a limit on the maximum number of rows to returned from a query. The default value of 0 means no limit.
- *Disable AutoCommit* Change the default commit behaviour of the OpenLink Lite Driver. The default mode is AutoCommit mode (box unchecked).
- *Disable Rowset Size Limit* Disable the limitation enforced by the cursor library. The limitation is enforced by default to prevent the Driver claiming all available memory in the event that a resultset is generated from an erroneous query is very large. The limit is normally never reached.
- *Defer fetching of long data* Defer fetching of LONG (BINARY, BLOB etc.) data unless explicitly requested in query. This provides significant performance increase when fields in query does not include LONG data fields.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.

Click on the 'Test Data Source' button to make a connection to the database to verify connectivity:

Figure 4.22. ee-frb-21.png

		connection	options	Treferences	
ew ODBC	Datasource will I	be created with	the following	ng configuration	n:
Data Sourc	e Name: fire15e	a_60_fire15			
UserName:	sysdba				
URLString:	{Database=//19	2.168.0.169:3	050/c:\Prog	gram Files\Fireb	oird\Firebird_1_5\
FetchBuffe	rSize: 60				
NoLoginBo	x: No				
MaxRows:	0				
NoAutoCo	mmit: No				
NoRowset	SizeLimit: No				
)•
		Test Dat	a Source		
			a sourcem	_	

Enter a vaild username and pasword for the database:

Identity	Connection	Options	Preferences	About
	DSN :	(File DSN	0	
Username	e 51	ysdba		
Password	Г			

A successful connection to the database has been made:



5.2 OpenLink ODBC Driver for Firebird (Express Edition) for Windows

5.2.1 Installation

The OpenLink ODBCDriver for Firebird (Express Edition) is a distributed as a Windows MSI installer. Simply double click on the installer 'ntl6efrb.msi' to commence the installation:

Figure 4.25. EEWinfrbinst01.png



ntl6efrb.msi

Installer Welcome Dialog for the OpenLink ODBCDriver for Firebird (Express Edition):



Please read the software license agreement and accept before continuing your installation:

Figure 4.27. EEWinfrbinst03.png

You must	agree with the license agreement below to proceed.	5
OPEN	INK SOFTWARE LICENSE AGREEMENT	^
TYPE		
License	or OpenLink Universal Data Access Driver Suite.	
QUANT	TY	
One or m connecti license c	pre copies of this product limited to 2 concurrent users, and 4 concurrent ns, maintained by the server based OpenLink License Manager. Additiona itions shall be reflected in your registration key.	l
USE		
You (an ''Softwar	ntity or a person) can make use of the software identified above (the '') in the quantity stated above if you meet the following conditions:	
Onenl in	Server Components (OpenLink Bequest Broker & OpenLink Database	~
	ot the license agreement	

Before installation you will be prompted for a license file. If a license file already exists on the machine then select the 'use existing file' option. A trial (try) or full (buy) license can be obtain by selecting the 'try and buy' option which loads our online try and buy web page:

Figure 4.28. EEWinfrbinst04.png

🙀 OpenLink FireBird ODBC Driver (Express Edition) Setup	×
Product License Select the folder containing the product license.	
This product requires a product license for use, which the installer can automatically place in the correct location for you. If you already have a 'ee_frb_lt.lic' license file click the 'Browse' button and locate the folder it is in.	
E:\ Browse	
Alternatively, click the 'Try & Buy' button to use your Web browser to request a license, if you don't have one yet.	
<pre>< Back Next > Cancel</pre>	כ

To obtain the trial license you must be a registered user on the OpenLinkWeb site and login with the username (e-mail address) and password for that user. Click on the 'Shop' link to visit our online shop cart to purchases a full license if required:

Click on the 'download license' button to obtain the license file immediately and save to your desktop. Alternatively an auto e-mail will be sent to the registered users e-mail address with a link to their OpenLinkData Space (ODS) where all

trial and full license files will be stored in the Briefcase for download at a later date.

Figure 4.29. EEWinfrbinst05.png		
OpenLink Product Download Wizard - Microso	oft Internet Explorer	
File Edit View Favorites Tools Help		
Search	📌 Favorites 🚱 🔗 •	💺 o · 📙 🛍 🜺
Address 🕘 http://download.openlinksw.com/download/logi	n.vsp	
Google G → Go		A#S Check 🔻 🛱 Translate 👻 🌽
OPENLINK software		OpenLii
Universal Data Access Driver You have selected Single-Tier (×86)	rs (ODBC, JDBC, ADO) Dowr • (Express Edition) ODBC Di	iload river for Firebird (Release 6.0) for use o
Try Single-Tier (Expression) To proceed you must loging temporary license so that product. Email: Password: Sign-In Forgotten your password Don't have an account? For the start to downlow	ss Edition) - Please Login in. You will receive a t you can evaluate this	Buy Single-Tier (Express Edition). You can proceed directly to online so this product to purchase a full licens Shop
© 2005 OpenLink Software		
E Done		

Select the license file to be used for the installation:

Figure 4.30. EEWinfrbinst06.png

🙀 OpenLink FireBird OD	BC Driver (Express Ed	ition) Setup	
Look in:	isk (C:)		
ATI	🚞 mnt	🚞 php5	
🚞 Borland	🚞 My Download Files	🚞 Program Files	
CompChecker	🚞 My Games	🚞 REMail	
Documents and Settings	🚞 NVIDIA	🚞 Temp	
DownloadDirector	🧰 OpenLink	🧰 Tools	
📄 lj2100pcl5ewin2kxp2003	🧰 oracle	🚞 UniScan	
📄 lj2100pcl6win2kxp2003	erfLogs 📔	🚞 WCamInst	
<			>
Eolder name: C:\			ОК
			Cancel

Choose to perform a custom, typical or complete installation of the driver:

Figure 4.31. EEWinfrbinst07.png

OpenLink FireBir	d ODBC Driver (Express Edition)Setup 📃 🗖 🔯
Select Installation Select the desired	Type installation type.
17	Typical Installs the most common program features. This option is recommended for most users.
No. of the second secon	Complete All program features will be installed. This option is recommended for the best performance.
	Custom Choose which application features you want installed and where they will be installed. This option is recommended for advanced users.
	< Back Next > Cancel

Select the features to be installed:

Figure 4.32. EEWinfrbinst09.png

Select Features Please select which features you would like to install.	٩
FireBird Samples	This feature requires 1988KB on your hard drive. It has 2 of 2 subfeatures selected. The subfeatures require 1656KB on your hard drive.
Description:	

Click the install button to begin the installation of components:

Figure 4.33. EEWinfrbinst10.png

🕏 OpenLink FireBird ODBC Driver (Express Edition) Setup
Ready to Install The installer is ready to begin the Custom installation.
Click Install to begin the installation. If you want to review or change any of your installation settings, click Back. Click Cancel to exit the installer.
< Back Install Cancel

Installation in progress:

Figure 4.34. EEWinfrbinst11.png



The Software installation is complete and ready for use:

Figure 4.35. EEWinfrbinst12.png



5.2.2 Configuration

To configure an ODBCDSN, run the ODBCAdministrator located in the Administrative Tools section of the Control Panel:

Figure 4.36. EEWinfrbconf01.png



Click on the drivers Tab to confirm the OpenLinkSQLServer ODBCDriver [Express Edition][6.0] has been successfully installed

Version 1.00.02.00 3.51.12.00	^			
1.00.02.00				
3.51.12.00				
1 00 00 00				
1.00.00.00				
1.00.00.00	-			
4.20.09.12				
5.20.00.00				
UpenLink Generic UDBC Driver (Unicode) 5.20.00.00				
UpenLink Generic UDBC Driver (Unicode) [6.0] 6.00.00.00				
1 00 00 00	22			
1.00.00.00	\mathbf{x}			
>				
	4.20.09.12 5.20.00.00 5.20.00.00 6.00.00.00 6.00.00.00 1.00.00.00			

From either the User or System DSN tabs click on the Add button and select the OpenLinkSQLServer ODBCDriver [Express Edition][6.0] from the list presented to create an ODBCDSN :

Figuro	1 38	FEWin	frhoor	f03	nna
riguie	4.50.	LL W III	mocor	1105.	ping

Create New Data Source		\mathbf{X}
	Select a driver for which you want to set up a data source Name Microsoft Visual FoxPro-Treiber MySQL ODBC 3.51 Driver OpenLink Firebird ODBC Driver (Express Edition) (Unic OpenLink Firebird ODBC Driver (Express Edition) (6.0) OpenLink Generic 32 Bit Driver v4.0 OpenLink Generic ODBC Driver OpenLink Generic ODBC Driver (Unicode) OpenLink Generic ODBC Driver (Unicode) OpenLink Generic ODBC Driver (Unicode) OpenLink Generic ODBC Driver (Express Edition) (Unic OpenLink Generic ODBC Driver (Unicode) OpenLink Generic ODBC Driver (Express Edition) (Unic OpenLink Generic ODBC Driver (Express Edition) (Unic OpenLink Generic ODBC Driver (Express Edition) (Unic OpenLink Generic ODBC Driver (Unicode) (Unic OpenLink Generic ODBC Driver (Express Edition) (Unic OpenLink Generic ODBC Driver (Express Edition) (Unic OpenLink Generic ODBC Driver (Unicode) (Unic OpenLink Generic ODBC Driver (Express Edition) (Unic OpenLink Generic ODBC Driver (Unicode) (Unic OpenLink Generic ODBC Driver (Unic OpenLink Generic (Unic OpenLink Generic (Unic OpenLink	e.
	Kack Finish Cance	*

In the Data Source tab, select a suitable DSN name and optional description for the Data Source to be created:

Figure 4.39. EEWinfrbconf04.png

OpenLink Single Tier D	SN Configuration	
	This wizard will help you create an ODBC data source that you can use to connect to a remote Database. What name do you want to use to refer to the data source? Name: fire15ea_super1 How do you want to describe the data source? Description:	
	< Back Next > Cancel	

The Connection Tab request the minimum parameters required to make a connection to the target database:

Figure 4.40. EEWinfrbconf05.png

OpenLink Single Tier D	SN Configuration		
	Which server do you w Host Su Port 30 DatabasePath C:	ant to connect to? iper1)50 \Program Files\Firebird\Firebird_1_5\example	s\e
	Connect now to ver Login ID Sy	Advanced ify that all settings are correct.	
S O F T W A R E		< Back Next > Canc	el

- *Host* : This is the fully qualified hostname, or IP address, of the machine hosting the DBMS you wish to access, e.g., dbms-server.example.com, or 192.168.155.123. Any hostname which will be resolved by your local DNS is acceptable.
- Port : This is the port that Firebird is listening on
- DatabasePath : This is the path and filename of the database file (.fdb) you want to connect to

- Login ID : This is a valid user on for the Firebird Database
- *Password* : Enter valid password and click next to verify that all settings are correct or uncheck check box to delay this to a later stage.

The advanced button displays additional optional parameters that can be configured:

BlobBufferLength BlobBufferSize			
BlobBufferSize			
BuffersNumber			
)efaultIsolation			_
Incoding			
.oginTimeout			
RoleName			
SocketBufferSize			~
			>
	BuffersNumber DefaultIsolation LoginTimeout RoleName BocketBufferSize	BuffersNumber DefaultIsolation Encoding EloginTimeout RoleName BocketBufferSize	BuffersNumber DefaultIsolation Encoding EloginTimeout RoleName BocketBufferSize

Table 4.2.

BlobBufferLength	Set BLOB buffer length. This value influences the performance when working with BLOB fields.
BlobBufferSize	Size of the BLOB buffer in bytes.
BuffersNumber	Number of cache buffers that should be allocated for this connection, should be specified for ClassicServer instances, SuperServer has a server-wide configuration parameter.
DefaultIsolation	Set the default transaction isolation level as string. Following strings are allowed: 'TRANSACTION_READ_COMMITTED', 'TRANSACTION_REPEATABLE_READ', 'TRANSACTION_SERIALIZABLE'
Encoding	Set encoding for connections produced by this data source.
LoginTimeout	Set login timeout for this datasource in seconds.
RoleName	SQL role to use.
SocketBufferSize	Socket buffer size in bytes.
SqlDialect	SQL dialect of the client.
TimestampUsesLocalTimezone	'true' if the JayBird 1.0 handling of the calendar in corresponding setters. This is also compatible with MySQL calendar treatment.
UseStandardUdf	'true' if driver should assume that standard UDF are installed.
UseStreamBlobs	'true' if stream blobs should be created, otherwise 'false'
UseTranslation	Path to the character translation table.
CharSet	Character set for the connection. Similar to encoding property, but accepts Java names instead of Firebird ones.

As indicated above the paramters of the options and preferences tabs are not required for a basic connection.

Figure 4.42. EEWinfrbconf07.png

OpenLink Single Tier D	SN Configuration
	Additional parameters: Drop Catalog name from DatabaseMetaData calls Drop Schema name from DatabaseMetaData calls Return an empty ResultSet for SQLStatistics Disable support of quoted identifier Disable support of search pattern escape Patch null size of SQLChar on: 4096
	< Back Next > Cancel

- *Row Buffer Size* This attribute specifies the number of records to be transported over the network in a single network hop. Values can range from 1 to 99.
- *Hide Login Dialog* Suppress the ODBC "Username" and "Password" login dialog box when interacting with your ODBC DSN from within an ODBC compliant application.
- *Read Only connection* Specify whether the connection is to be "Read-only". Make sure the checkbox is unchecked to request a "Read/Write" connection.
- *Drop Catalog from Meta calls* Enable this option to have the catalog name not appear for tables, views and procedures when requesting database meta-data.
- Drop Schema from Meta calls Enable this option to have the schema-name not appear for tables, views and procedures when requesting database meta-data.
- *SQLStatistics disabled* Check this box to have SQLStatistics() return an empty resultset. Use this if the underlying database does not support retrieving statistics about a table (e.g. what indexes there are on it).
- *No support of quoted identifier* If it is set, the call SQLGetInfo for 'SQL_IDENTIFIER_QUOTE_CHAR' will return the space (" "). It can be used if DBMS doesn't support quoted SQL like select * from "account"
- *No support of search string escape* If it is set, the call SQLGetInfo for 'SQL_LIKE_ESCAPE_CLAUSE' will return the space (" "). It can be used if DBMS doesn't support SQL escape patterns
- *Patch of NULL size of SQL_CHAR* If set this option overrides the size of SQL_CHAR column type returned by the database with the value set in the text box (in bytes). With the default value of 0 the driver uses the size returned by the database.
- *SQL_DBMS Name* Manually override the SQLGetInfo(SQL_DBMS_NAME) response returned by the driver. This is know to be required for products like Microsoft InfoPath for which the return the value should be "SQL Server".

Figure 4.43. EEWinfrbconf08.png

OpenLink Single Tier D	SN Configuration	×
	Additional connect parameters: Read-only connection Defer fetching of long data Disable interactive login Row buffer size: 60 Max rows override: 0 Initial SQL: Dynamic cursor sensitivity: Low Enable logging to the log file:	
	< Back Next > Cancel	

- *Initialization SQL* Lets you specify a file containing SQL statements that will be run against the database upon connection, automatically.
- *Cursor Sensitivity* Enables or disables the row version cache used with dynamic cursors. When dynamic cursor sensitivity is set high, the Cursor Library calculates checksums for each row in the current rowset and compares these with the checksums (if any) already stored in the row version cache for the same rows when fetched previously. If the checksums differ for a row, the row has been updated since it was last fetched and the row status flag is set to SQL_ROW_UPDATED. The row version cache is then updated with the latest checksums for the rowset. From the user's point of view, the only visible difference between the two sensitivity settings is that a row status flag can never be set to SQL_ROW_UPDATED when the cursor sensitivity is low. (The row status is instead displayed as SQL_ROW_SUCCESS.) In all other respects, performance aside, the two settings are the same deleted rows don't appear in the rowset if their keys fall within the span of the rowset. If your application does not need to detect the row status SQL_ROW_UPDATED, you should leave the 'High Cursor Sensitivity' checkbox unchecked, as performance is improved. The calculation and comparison of checksums for each row fetched carries an overhead. If this option is enabled, the table oplrvc must have been created beforehand using the appropriate script for the target database.
- *MaxRows Override* Allows you to define a limit on the maximum number of rows to returned from a query. The default value of 0 means no limit.
- *Defer fetching of long data* Defer fetching of LONG (BINARY, BLOB etc.) data unless explicitly requested in query. This provides significant performance increase when fields in query does not include LONG data fields.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.

Figure 4.44. EEWinfrbconf09.png

OpenLink ODBC Driver (Express Edition) User Guide

LANK AL	Additional connect compatibility parameters:
A Parta	Disable Autocommit
and an ion and	Disable rowset size limit
J. M. Caro	Multiple Active Statements Emulation
	SQL_DBMS_NAME:
COPENLINK SOFTWARE	

- *Disable AutoCommit* Change the default commit behaviour of the OpenLink Lite Driver. The default mode is AutoCommit mode (box unchecked).
- *Disable Rowset Size Limit* Disable the limitation enforced by the cursor library. The limitation is enforced by default to prevent the Driver claiming all available memory in the event that a resultset is generated from an erroneous query is very large. The limit is normally never reached.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.

Click on the Test Data Sourcebutton to verify successful connection can be made to the database.

Figure 4.45. EEWinfrbconf10.png

OpenLink Single Tier D	ISN Configuration			
(AN)	A new ODBC Datasource will be created with the following configuration:			
	OpenLink Firebird Driver (Express Edition) Version: 1.0 File: C:\Program Files\OpenLink Software\UDA\v60\bin\ntl5eefrb.d			
	Running connectivity tests Attempting connection Connection established Verifying option settings Actual database is (Firebird 1.5) Disconnecting from server TESTS COMPLETED SUCCESSFULLY!			
OPENLINK SOFTWARE	Test Data Source			
	< Back Finish Cancel			

6 Chapter 5. OpenLink ODBC Driver for Informix (Express Edition)

Table of Contents

- OpenLink ODBC Driver for Informix (Express Edition) for Mac OS X
 - ♦ Installation Guide
 - ♦ Configuration
- OpenLink ODBC Driver for Informix (Express Edition) for Windows
 - ♦ Installation
 - Configuration

6.1 OpenLink ODBC Driver for Informix (Express Edition) for Mac OS X

6.1.1 Installation Guide

The OpenLink ODBC Driver for Informix (Express Edition) is distributed as a Disk image (DMG) file. Simply double click on the disk image 'mul6efrb.dmg' to extract the installer mpkg file:

Figure 5.1. ee-inf-00.png

000	🛄 Des	ktop	\bigcirc
		¢ Q	
 gbiggs' iBook Network Macintosh HD 	<u> </u>	mulfainf dma	0
Desktop	¥	maloeim.umg	* *
🏦 garrybiggs	TC) 4 +
18 it	ems, 35.39 (GB available	///

Double-click on the mpkg file to run the installer and following the on screen instriuction as indicated below to complete the installation:

Figure 5.2. ee-inf-01.png



Installer Welcome Dialog for the OpenLink ODBC Driver for Informix (Express Edition):

Figure 5.3. ee-inf-02.png



Please review the readme file for installation requirements and known issues:

Figure 5.4. ee-inf-03.png 000 🥪 Install OpenLink Express Edition driver for Informix Important Information Release 6.0, April 2006 Introduction This installation program will install the following Universal Binary Read Me Format components: License OpenLink Express Edition for Informix Select Destination OpenLink iODBC Driver Manager Installation Type OpenLink iODBC Administrator OpenLink iODBC Sample Program Install Finish Up **Minimum System Requirements** Mac OS X 10.3.9 or above **Known ODBC-Compliant Application Issues** à REALbasic variants through Version 4.0 were not fully ODBC-¥ OCV U -1--11 1 Print... Go Back Save... Continue 10

Please read the software license agreement before continuing your installation:
	Software License Agreement
Introduction	English
Read Me	OpenLink Software License Agreement
License	License for Express Edition for Informix
Select Destination	0
Installation Type	One or more copies of this product limited to 2 concurrent connections
Install	enforced by the Express Edition for Informix License Manager.
Finish Up	Informix License file.
	<u>Use</u> You (an entity or a person) can make use of the software identified above (the "Software") in the quantity stated above if you meet the following conditions:
	OpenLink Client Components (Express Edition for Informix)
	You must acquire one copy of the software for each client on which

Select destination volume for driver installation:





. . . .

Choose to perform a custome or default installation of the driver:

E	asy Install on "Macintosh HD"
Introduction	
Read Me	Click Upgrade to perform a basic installation of
License	HD."
⊖ Select Destination	
Installation Type	
Install	
Finish Up	

If you chose the custom option select which of the components below are to be installed:

	Custom Install on "Macintosh HD"		
	Package Name	Action	Size
Introduction	▶ ✓ iODBC Driver Manager and SDK		0 bytes
🖯 Read Me	 License Manager Express Edition driver for Informix 	Upgrade	0 bytes
License	✓ Online Documentation (Single Tier)	Upgrade	0 bytes
Select Destination			
Installation Type			
Install			
Finish Up			
	Space Required: 0 bytes Remai	ining: 35.4GB	

The Software must be installed as a user with Administrative privileges on the machine:

Figure 5.9. ee-inf-08.png

-		Authenticate	
⊖ Introdu ⊖ Read Me ⊖ License		Installer requires that you type your password.	Size O bytes O bytes O bytes O bytes
 Select D Installat Install Finish U 	Details	Name: gbiggs Password: Cancel OK	
		Space Required: 0 bytes Remaining: 35.4G	В
		(Easy Install) Go Back	Upgrade

After the driver has been installed you will be prompted for a license file. If a license file already exists on the machine then select the 'use exisiting file' option. A trial (try) or full (buy) license can be obtain by selecting the 'try and buy' option which loads our online try and buy web page:

Figure 5.10. ee-inf-09.png

0	Select license file
Y	The installation requires a license file (ee_inf_lt.lic) for operation.
	Press the 'Try or Buy' button to request a license using your browser. You will receive a license as an email attachement.
	Press the 'Use existing License' button if you have already recived a license.
	On the next dialog, press the 'Choose' button to select the license file for use or 'Cancel' to continue without one.
	(Trues Purulisance)

To obtain the trial license you must be a registered user on the OpenLink Web site and login with the username (e-mail address) and password for that user. Click on the 'Shop' link to visit our online shop cart to purchases a full license if required:



Universal Data Access Drivers Download

You have selected Single-Tier (Express Edition) ODBC Drivers for Informix (Release 6.0) for use on Mac OS 2

Try Single-Tier (Express Edition)	Buy Single-Tier (Express Edition)
To proceed you must login Email: Password:	You can proceed directly to online sales with this product to purchase a full license.
Sign-In Forgotton your password? Don't have an account? Register15 DAYS	

Go back to the start to download more software.

© 2005 OpenLink Software

Click on the 'download license' button to obtain the license file immediately and save to your desktop. Alternatively an auto e-mail will be sent to the registered users e-mail address with a link to their OpenLink Data Space (ODS) where all trial and full license files will be stored in the Briefcase for download at a later date.

Figure 5.12. ee-inf-11.png

72



Select the license file to be used for the installation:

Figure 5.13. ee-inf-12.png

000	Choose your license file	
You should have receive	d a license file from OpenLink as an a	attachement to an email. Make sure
Network Macintosh HD OpenLink CopenLink	Name ee_inf_lt.lic	▲ Date Modified 28/06/2006
New Folder		Cancel Choose

Installation is complete:

Figure 5.14. ee-inf-13.png	OpenLink Express Edition driver for Informix
 Introduction Read Me License Select Destination Installation Type Install Finish Up 	The software was successfully installed
e	Go Back Close

6.1.2 Configuration

To configure an ODBC DSN, run the OpenLink iODBC Administrator located in the /Applications/iODBC folder:

Figure 5.15. ee-inf-14.png

OpenLink ODBC Driver (Express Edition) User Guide

000	Applications		0
	₩ - Q		
 gbiggs' iBoo Network ▲ Macintosh HD OpenLink ▲ Desktop garrybiggs Applications Documents 	Name Name Internet Explorer IODBC IODBC Administrator IODBC Demo IODBC Demo IODBC Demo Unicode IODBC Test Unicode.command IODBC Test.command IPhoto	Date Modified 22 October 2005, 20:13 Today, 14:34 Today, 14:33 Today, 14:34 Today, 14:34 9 June 2006, 16:21 9 June 2006, 16:21 22 October 2005, 18:33	0
Movies Music	iSync	30 June 2006, 12:15	× • •
	1 of 103 selected, 35.39 GB available		11.

Click on the `add' button to Choose the ODBC Driver the DSN should be created for:

r Data Sourc	es					
Name	Descr	iption	Driver			dd
					Rei	move
					Con	figur
					(CT	est
					_	
An data	ODBC User da a provider. A	ta source st User data so	ores information urce is visible on	about how to connect to ly to you.	o the indicate	ed
•						

Figure 5.16. ee-inf-15.png

75

Choose the OpenLink Informix Driver (Express Edition) v6.0 from the list of available drivers:

Figure 5.17. ee-inf-16.png

Choose an ODBC Driver

	Name OpenLink Firebird Driver (Express Edition) v6.0 OpenLink Firebird Driver (Express Edition)(Unicode) v6.0
and the	OpenLink Informix Driver (Express Edition) v6.0
	OpenLink Informix Driver (Express Edition)(Unicode) v6.0 OpenLink JDBC Lite Driver (Unicode) v6.0 OpenLink IDBC Lite Driver v6.0
TOTAL	OpenLink MvSOL 3.x Lite Driver (Unicode) v6.0
S. Sell	OpenLink MySQL 3.x Lite Driver v6.0
	OpenLink PostgreSQL Lite Driver (Unicode) v6.0
MAR	OpenLink PostgreSQL Lite Driver v6.0
	Constitute of Constitute Data and Alastanda Succo

In the Data Source tab, select a suitable DSN name and optional description for the Data Source to be created:

Figure 5.18. ee-inf-17.png

What name do you want to use to refer to this data source ? DSN informix_dsn How do you want to describe this data source ? Description	Data Source	Connectio	on Options	Preferences	Test
DSN informix_dsn How do you want to describe this data source ? Description	What nam	ne do you wa	ant to use to re	fer to this data	source ?
How do you want to describe this data source ? Description	DSN	ii.	informix_dsn		
	Descrip	ntion			

The Connection Tab request the minimum paramters required to make a connection to the target database:

Figure 5.19. ee-inf-18.png

	Data Source	Connection	Options	Preferences	Test
	Which ser	ver do you wan	t connect to	0?	
		Host	oplusunx	54.usnet.priv	/ate
		Port	7002		
		Database	stores_de	mo	
	Da	tabase Server	oplusunx	54_2000	
		User name	informix		
JUBQ				(Advanced

- Host the hostname of the server on which Informix is running
- Port the port on which the Informix instance listens
- Database the name of a valid database
- Database Server the name of the Informix Server running on a given Host
- Username the name of a valid Informix user
- Advanced additional optional configuration parameters:

Table 5.1.

Specifies the port number of the secondary database server in an HDR pair. The port number is listed in the /etc/services file.
Sets the secondary host name or host IP address for HDR connection redirection
Specifies the secondary database server in an HDR pair to which an explicit or implicit connection is made by a client application if the primary database server is unavailable
When set to 'true', secondary server properties are used to connect to the secondary server in an HDR pair, if the primary server is unavailable.
Specifies where temporary files for handling smart large objects are created. You must supply an absolute pathname.
Uses 56-bit encryption to send the password to the server. If 'PASSWORD' is specified, the user-provided password is encrypted using 56-bit encryption when it is passed from the client to the database server. There is no default setting. The setting is supported in the 7.31, 8.3 and later, and 9.x and later versions of the Informix database server.
Specifies an HTTP proxy server.
When set to 'FILE', specifies that database information (such as host-name, port-number, user, and password) is specified in an sqlhosts file. When set to 'LDAP', specifies that this information is specified in an LDAP server
Example:http://host-name:port-number/sqlhosts.ius file://D:/local/myown/sqlhosts.ius
Example: ldap://host-name:port-number
Example: Informix-base-DN
Overrides the default setting for the size of the fetch buffer for all data except large objects. The default size is 4096 bytes.

	OpenLink ODBC Driver (Express Edition) User Guide	78
IfxBIG_FET_BUF_SIZE	In IBM Informix Extended Parallel Server, Version 8.4, overrides the default size of the tuple buffer and allows it to be increased up to 2GB.	
<i>IfxUSEV5SERVER</i>	When set to 1, specifies that the Java program is connecting to an IBM Inform OnLine 5.x or IBM Informix SE 5.x or IBM Informix SE 7.x database server. This environment variable is mandatory if you are connecting to an IBM Informix OnLine 5.x or IBM Informix SE 5.x or IBM Informix SE 7.x database server.	iix .se
<i>IfxLOBCACHE</i>	Determines the buffer size for large object data that is fetched from the databas server Possible values are: v A number greater than 0. The maximum number bytes is allocated in memory to hold the data. If the data size exceeds the LOBCACHE value, the data is stored in a temporary file; if a security violation occurs during creation of this file, the data is stored in memory. v Zero (0). The data is always stored in a file. If a security violation occurs, the driver makes n attempt to store the data in memory. v A negative number. The data is always stored in memory. If the required amount of memory is not available, an error occurs.	of on ne no
IfxIFX_USEPUT	When set to 1, enables bulk inserts.	
IfxDELIMIDENT	When set to true, specifies that strings set off by double quotes are delimited identifiers	
IfxINFORMIXSTACKSIZE	Specifies the stack size, in kilobytes, that the database server uses for a particular client session	
<i>IfxDBSPACETEMP</i>	Specifies the dbspaces in which temporary tables are built	
IfxDB_LOCALE	Specifies the locale of the databaseIBM Informix JDBC Driver uses this variable to perform code-set conversion between Unicode and the database locale. Together with the CLIENT_LOCALE variable, the database server use this variable to establish the server processing locale. The DB_LOCALE and CLIENT_LOCALE values must be the same, or their code sets must be convertible.	es
<i>IfxCLIENT_LOCALE</i>	Specifies the locale of the client that is accessing the database Provides defaul for user-defined formats such as the GL_DATE format User-defined data type can use it for code-set conversion. Together with the DB_LOCALE variable, the database server uses this variable to establish the server processing locale. The DB_LOCALE and CLIENT_LOCALE values must be the same, or their code sets must be convertible.	ts es
IfxDBDATE	Specifies the end-user formats of values in DATE columns Supported for backward compatibility; GL_DATE is preferred.	
IfxGL_DATE	Specifies the end-user formats of values in DATE columns This variable is supported in Informix database server versions 7.2x, 8.x, 9.x, and 10.x.	
IfxDBCENTURY	Enables you to specify the appropriate expansion for one- or two-digit year DATE values	
IfxSTMT_CACHE	When set to 1, enables the use of the shared-statement cache in a session. This feature can reduce memory consumption and speed query processing among different user sessions. The driver does not use this variable; it just passes the value to the server.	3
IfxNODEFDAC	When set to YES, prevents default table and routine privileges from being granted to the PUBLIC user when a new table or routine is created in a databat that is not ANSI compliant. Default is NO.	ıse
<i>IfxDBTEMP</i>	Specifies the full pathname of the directory into which you want IBM Informi Enterprise Gateway products to place their temporary files and temporary tables. The driver does not use this variable; it just passes the value to the server.	x
IfxPSORT_DBTEMP	Specifies one or more directories to which the database server writes the temporary files it uses when performing a sort	
IfxPSORT_NPROCS	Enables the database server to improve the performance of the parallel-proces sorting package by allocating more threads for sorting	S
IfxDBUPSPACE	Specifies the amount of system disk space that the UPDATE STATISTICS statement can use when it simultaneously constructs multiple-column	

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opon=	0220	2	(=	=	000.	0 0.00

distributions

accepted

client application

loader

server.

Determines the degree of parallelism used by the database service

Specifies the join method that the query optimizer uses

Specifies whether the query optimizer allows external query optimization directives from the sysdirectives system catalog table to be applied to queries in

existing applications. The default is OFF. Possible values: ON External

optimizer directives accepted OFF External optimizer directives not accepted 1 External optimizer directives accepted 0 External optimizer directives not

Specifies the maximum number of additional connection attempts that can be

Sets the timeout period for an attempt to connect to the database server. If a connection attempt does not succeed in this time, the attempt is aborted and a

Specifies the size of the memory cache for the staging-area blobspace of the

Specifies the name of the configuration file used by the high-performance

Specifies the directories that should be searched for executable programs Specifies the pathname for smart-large-object handles (which identify the location of smart large objects such as BLOB, CLOB, and BOOLEAN data

types). The driver does not use this variable; it just passes the value to the

Specifies the query performance goal for the optimizer. Set this variable in the

user environment before you start an application. The driver does not use this

files. If set to a value greater than 0, code-set conversion occurs in the memory of the client computer, and the value represents the number of bytes of memory

Informix-specific variable IFX_LOCK_MODE_WAIT. Possible values: '-1'

WAIT until the lock is released. '0' DO NOT WAIT, end the operation, and return with error. 'nn' WAIT for nn seconds for the lock to be released. Sets the value of Informix-specific variable IFX ISOLATION LEVEL.

When set to 1, checks for Informix extensions to ANSI-standard syntax The value of this variable determines whether code-set conversion is done in memory in or in temporary files. If set to 0, code-set conversion uses temporary

The default value is 0 (do not wait for the lock). Sets the value of

timeouts for blocking socket methods and for socket connections.

connection error is reported. The default value is 0 seconds. This variable adds

made to each database server by the client during the time limit specified by the

Determines whether the optimizer allows query optimization directives from within a query. This variable is set on the client. The driver does not use this IfxIFX_DIRECTIVES variable; it just passes the value to the server.

value of INFORMIXCONTIME

IfxIFX_EXTDIRECTIVES

IfxOPTCOMPIND

IfxPDQPRIORITY

IfxINFORMIXCONRETRY

IfxINFORMIXCONTIME

IfxINFORMIXOPCACHE

IfxPLCONFIG

IfxPATH

IfxPLOAD_LO_PATH

IfxOPT_GOAL

IfxDBANSIWARN

IfxIFX_CODESETLOB

IfxIFX_LOCK_MODE_WAIT

IfxIFX_ISOLATION_LEVEL

TRANSACTION READ UNCOMMITTED), '2' - Committed Read (equivalent to TRANSACTION READ COMMITTED), '3' - Cursor Stability (equivalent to TRANSACTION READ COMMITTED), '4' - Repeatable Read (equivalent to TRANSACTION_REPEATABLE_READ)

Possible values: '1' - Dirty Read (equivalent to

variable; it just passes the value to the server.

As indicated above the paramters of the options and preferences tabs are not required for a basic connection:

allocated for the conversion.

Figure 5.20. ee-inf-19.png

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	Row buffer size 60 Read or	jin dialog ly connectior
PL-	Jet options	
-C	Drop catalog from meta calls Drop schema fro	m meta calls bled
	 No support of search string escape Patch of NULL size of SQL_CHAR 	

- *Row Buffer Size* This attribute specifies the number of records to be transported over the network in a single network hop. Values can range from 1 to 99.
- *Hide Login Dialog* Suppress the ODBC "Username" and "Password" login dialog box when interacting with your ODBC DSN from within an ODBC-compliant application.
- *Read-only connection* Specify whether the connection is to be read-only. Make sure the checkbox is unchecked to request a read/write connection.
- *Drop Catalog from Meta calls* Enable this option to have the catalog name not appear for tables, views and procedures when requesting database meta-data.
- Drop Schema from Meta calls Enable this option to have the schema-name not appear for tables, views and procedures when requesting database meta-data.
- *SQLStatistics disabled* Check this box to have SQLStatistics() return an empty resultset. Use this if the underlying database does not support retrieving statistics about a table (e.g. what indexes there are on it).
- *No support of quoted identifier* If it is set, the call SQLGetInfo for 'SQL_IDENTIFIER_QUOTE_CHAR' will return the space (" "). It can be used if DBMS doesn't support quoted SQL such as select * from "account"
- *No support of search string escape* If it is set, the call SQLGetInfo() for 'SQL_LIKE_ESCAPE_CLAUSE' will return the space (" "). It can be used if DBMS doesn't support SQL escape patterns
- *Patch of NULL size of SQL_CHAR* If set this option overrides the size of SQL_CHAR column type returned by the database with the value set in the text box (in bytes). With the default value of 0 the driver uses the size returned by the database.
- *SQL_DBMS Name* Manually override the SQLGetInfo(SQL_DBMS_NAME) response returned by the driver. This is know to be required for products like Microsoft InfoPath for which the return the value should be "SQL Server".

Figure 5.21. ee-inf-20.png

	Data Source Connection Options Preferences Test					
	Initialization SQL Browse					
PL	Cursor sensitivity Low +					
	Max rows override 0					
TO	Disable autocommit					
E	Disable rowset size limit					
	☑ Defer fetching of long data					
ODE	Multiple Active Statements Emulation					

- *Initialization SQL* Lets you specify a file containing SQL statements that will be run against the database upon connection, automatically.
- *Cursor Sensitivity* Enables or disables the row version cache used with dynamic cursors. When dynamic cursor sensitivity is set high, the Cursor Library calculates checksums for each row in the current rowset and compares these with the checksums (if any) already stored in the row version cache for the same rows when fetched previously. If the checksums differ for a row, the row has been updated since it was last fetched and the row status flag is set to SQL_ROW_UPDATED. The row version cache is then updated with the latest checksums for the rowset. From the user's point of view, the only visible difference between the two sensitivity settings is that a row status flag can never be set to SQL_ROW_UPDATED when the cursor sensitivity is low. (The row status is instead displayed as SQL_ROW_SUCCESS.) In all other respects, performance aside, the two settings are the same deleted rows don't appear in the rowset if their keys fall within the span of the rowset. If your application does not need to detect the row status SQL_ROW_UPDATED, you should leave the 'High Cursor Sensitivity' checkbox unchecked, as performance is improved. The calculation and comparison of checksums for each row fetched carries an overhead. If this option is enabled, the table oplrvc must have been created beforehand using the appropriate script for the target database.
- *MaxRows Override* Allows you to define a limit on the maximum number of rows to returned from a query. The default value of 0 means no limit.
- *Disable AutoCommit* Change the default commit behaviour of the OpenLink Lite Driver. The default mode is AutoCommit mode (box unchecked).
- *Disable Rowset Size Limit* Disable the limitation enforced by the cursor library. The limitation is enforced by default to prevent the Driver claiming all available memory in the event that a resultset is generated from an erroneous query is very large. The limit is normally never reached.
- *Defer fetching of long data* Defer fetching of LONG (BINARY, BLOB etc.) data unless explicitly requested in query. This provides significant performance increase when fields in query does not include LONG data fields.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.

Click on the 'Test Data Source' button to make a connection to the database to verify connectivity:

Figure 5.22. ee-inf-21.png

new ODBC	Datasource will b	e created with	the following	ng configuration:
Data Sourc	e Name: informi	x_dsn		
UserName:	informix			
URLString:	{IfxIFXHOST=op	usunx54.usne	t.private;Po	rtNumber=7002;DatabaseName=
FetchBuffe	Size: 60			
NoLoginBo	x: No			
MaxRows:	0			
NoAutoCo	nmit: Yes			
NoRowset	izeLimit: No			
	******)•
		Test Dat	a Source	

Enter a vaild username and pasword for the database:

DSN : (File DSN) Username informix	Identity	Connection	Options	Preferences	Abou
Username Informix	Usernam	DSN :	(File DSN)	
Decement	Decrement		itormix		_
Password	Password	•	••••••		

A successful connection to the database has been made:



6.2 OpenLink ODBC Driver for Informix (Express Edition) for Windows

6.2.1 Installation

The OpenLink ODBCDriver for Informix (Express Edition) is a distributed as a Windows MSI installer. Simply double click on the installer 'ntl6einf.msi' to commence the installation:

Figure 5.25. EEWininfinst01.png



ntl6einf.msi

Installer Welcome Dialog for the OpenLink ODBCDriver for Informix (Express Edition):



Please read the software license agreement and accept before continuing your installation:

Figure 5.27. EEWininfinst03.png

🕼 OpenLink Informix ODBC Driver (Express Edition) Setup
License Agreement You must agree with the license agreement below to proceed.
OPENLINK SOFTWARE LICENSE AGREEMENT
ТҮРЕ
License for OpenLink Universal Data Access Driver Suite.
QUANTITY
One or more copies of this product limited to 2 concurrent users, and 4 concurrent connections, maintained by the server based OpenLink License Manager. Additional license options shall be reflected in your registration key.
USE
You (an entity or a person) can make use of the software identified above (the "Software") in the quantity stated above if you meet the following conditions:
Onenl ink Server Components (Onenl ink Bequest Broker & Onenl ink Database 🛛 🐸
✓ Laccept the license agreement
< Back Next > Cancel

Before installation you will be prompted for a license file. If a license file already exists on the machine then select the 'use existing file' option. A trial (try) or full (buy) license can be obtain by selecting the 'try and buy' option which loads our online try and buy web page:

Figure 5.28. EEWininfinst04.png

OpenLink	Informix ODBC Driver (Express Edition) Setup
Product Li Select th	cense e folder containing the product license.
P	This product requires a product license for use, which the installer can automatically place in the correct location for you. If you already have a 'ee_inf_lt.lic' license file click the 'Browse' button and locate the folder it is in.
Install the	e license file from this folder: Browse
Alternativ to reque:	rely, click the 'Try & Buy' button to use your Web browser Try & Buy It a license, if you don't have one yet.
🗌 l don	t want to install a license file right now.
	<pre></pre>

To obtain the trial license you must be a registered user on the OpenLinkWeb site and login with the username (e-mail address) and password for that user. Click on the 'Shop' link to visit our online shop cart to purchases a full license if required:

Click on the 'download license' button to obtain the license file immediately and save to your desktop. Alternatively an auto e-mail will be sent to the registered users e-mail address with a link to their OpenLinkData Space (ODS) where all

trial and full license files will be stored in the Briefcase for download at a later date.

Figure 5.29. EEWininfins	t05.png	
OpenLink Product I	Jownload Wizard - Microsoft Internet Explorer	
File Edit View Favor	ites Tools Help	
🌀 Back 🝷 🕥 🕤	🖹 🛃 🏠 🔎 Search 🤺 Favorites 🧐 🗟 🗸	🎍 🖸 🔹 🧾 🎇 🌺
Address 🕘 http://downloa	ad.openlinksw.com/download/login.vsp	
Google G-	🤜 Go 🚸 🌍 🚰 👻 💁 1368 blocked	🍣 Check 👻 🛱 Translate 👻 🌽
	N K r e	OpenLi
Uni You Bitj	iversal Data Access Drivers (ODBC, JDBC, ADO) Downl have selected Single-Tier (Express Edition) ODBC Dri) (x86)	load ivers for Informix (Release 6.0) for use
	Try Single-Tier (Express Edition) - Please Login To proceed you must login. You will receive a temporary license so that you can evaluate this product. Email: Password: Sign-In	Buy Single-Tier (Express Edition). You can proceed directly to online s this product to purchase a full licen Shop
Go	Forgotten your password? Don't have an account? Register back to the start to <u>download more software.</u>	
© 2005 OpenLink Soft	ware	
e Done		

Select the license file to be used for the installation:

Figure 5.30. EEWininfinst06.png

🙀 OpenLink Informix OD	BC Driver (Express Ed	ition) Setup	
Look in:	sk (C:)		v
ATI 🚞	🚞 mnt	🚞 php5	
🚞 Borland	🚞 My Download Files	🚞 Program Files	
CompChecker	🚞 My Games	🚞 REMail	
Documents and Settings	🚞 NVIDIA	🚞 Temp	
DownloadDirector	🚞 OpenLink	🧰 Tools	
ij2100pcl5ewin2kxp2003	🚞 oracle	🧰 UniScan	
📄 lj2100pcl6win2kxp2003	PerfLogs	🚞 WCamInst	
<	Ш		>
Eolder name: C:\			ОК
			Cancel

Choose to perform a custom, typical or complete installation of the driver:

Figure 5.31. EEWininfinst07.png

OpenLink Informi	x ODBC Driver (Express Edition)Setup
Select Installation Select the desired	Type installation type.
1]	Typical Installs the most common program features. This option is recommended for most users.
Market State	Complete All program features will be installed. This option is recommended for the best performance.
	Custom Choose which application features you want installed and where they will be installed. This option is recommended for advanced users.
	< Back Next > Cancel

Select the features to be installed:

Figure 5.32. EEWininfinst09.png

Select Features Please select which features you would like to install.	٩
OpenLink Express Edition Drivers Informix Samples	This feature requires 1988KB on your hard drive. It has 2 of 2 subfeatures selected. The subfeatures require 4404KB on your hard drive.
Description:	

Click the install button to begin the installation of components:

Figure 5.33. EEWininfinst10.png

🕼 OpenLink Informix ODBC Driver (Express Edition) Setup
Ready to Install The installer is ready to begin the Custom installation.
Click Install to begin the installation. If you want to review or change any of your installation settings, click Back. Click Cancel to exit the installer.
< Back Install Cancel

Installation in progress:

Figure 5.34. EEWininfinst11.png



The Software installation is complete and ready for use:

Figure 5.35. EEWininfinst12.png



6.2.2 Configuration

To configure an ODBCDSN, run the ODBCAdministrator located in the Administrative Tools section of the Control Panel:

Figure 5.36. EEWininfconf01.png



Click on the drivers Tab to confirm the OpenLinkSQLServer ODBCDriver [Express Edition][6.0] has been successfully installed

ODBC Driv	vers that are installed on yo	ur system:	Version	
Open in	Eirebird ODBC Driver (Evr	press Edition) (6.0)	1 00 00 00	
OpenL in	Generic 32 Bit Driver v4 f)	4.20.09.12	
OpenLin	Generic ODBC Driver	- 34	5.20.00.00	
OpenLin	Generic ODBC Driver (Un	nicode)	5.20.00.00	
OpenLin	Generic ODBC Driver (Un	nicode) [6.0]	6.00.00.00	-
OpenLin	Generic ODBC Driver (6.0	0	6.00.00.00	
OpenLin	Informix ODBC Driver (Exp	press Edition) (Unicode) [6.0]	1.00.00.00	
OpenLin	Informix ODBC Driver (Exp	press Edition) [6.0]	1.00.00.00	
OpenLin	JDBC Lite for JDK 1.2 (32	2 Bit)	5.20.76.00	
OpenLin	JDBC Lite for JDK 1.2 (32	Bit) (Unicode)	5.20.76.00	×
<			>	
	An ODBC driver allows O ODBC data sources. To	DBC-enabled programs to get in install new drivers, use the drive	nformation from er's setup	

From either the User or System DSN tabs click on the Add button and select the OpenLinkSQLServer ODBCDriver [Express Edition][6.0] from the list presented to create an ODBCDSN :



Select a driver for which you want to set up a data source. Name Image: Constraint of the second secon
OpenLink JDBC Lite for JDK 1.3 (32 Bit) OpenLink JDBC Lite for JDK 1.3 (32 Bit) (Unicode) OpenLink JDBC Lite for JDK 1.4 (32 Bit) (Unicode)

In the Data Source tab, select a suitable DSN name and optional description for the Data Source to be created:

Figure 5.39. EEWininfconf04.png

OpenLink Single Tier D	SN Configuration 🛛 🔀
	This wizard will help you create an ODBC data source that you can use to connect to a remote Database. What name do you want to use to refer to the data source? Name: infl0ea_oplusunx54 How do you want to describe the data source? Description:
	< Back Next > Cancel

The Connection Tab request the minimum paramters required to make a connection to the target database:

Figure 5.40. EEWininfconf05.png

- *Host* : This is the fully qualified hostname, or IP address, of the machine hosting the DBMS you wish to access, e.g., dbms-server.example.com, or 192.168.155.123. Any hostname which will be resolved by your local DNS is acceptable.
- Port : This is the port that Informix is listening on
- Database : This is the name of the database

- Database Server : This is the name of the database server
- Login ID : This is a valid user on for the Informix Database
- *Password* : Enter valid password and click next to verify that all settings are correct or uncheck check box to delay this to a later stage.

The advanced button displays additional optional parameters that can be configured:

Use	Attribute	Value		
	IfxPORTNO_SECONDARY			
	IfxIFXHOST_SECONDARY			
	IfxINFORMIXSERVER_SE			
	IfxENABLE_HDRSWITCH			
	IfwJDBCTEMP			
	IfxSECURITY			
	IfxPR0XY			
	IfxSQLH_TYPE			
<		1111		>

Table 5.2.

IfxPORTNO_SECONDARY	Specifies the port number of the secondary database server in an HDR pair. The port number is listed in the /etc/services file.
IfxIFXHOST_SECONDARY	Sets the secondary host name or host IP address for HDR connection redirection
IfxINFORMIXSERVER_SECONDARY	Specifies the secondary database server in an HDR pair to which an explicit or implicit connection is made by a client application if the primary database server is unavailable
IfxENABLE_HDRSWITCH	When set to 'true', secondary server properties are used to connect to the secondary server in an HDR pair, if the primary server is unavailable.
IfxJDBCTEMP	Specifies where temporary files for handling smart large objects are created. You must supply an absolute pathname.
IfxSECURITY	Uses 56-bit encryption to send the password to the server. If 'PASSWORD' is specified, the user-provided password is encrypted using 56-bit encryption when it is passed from the client to the database server. There is no default setting. The setting is supported in the 7.31, 8.3 and later, and 9.x and later versions of the Informix database server.
IfxPROXY	Specifies an HTTP proxy server.
IfxSQLH_TYPE	When set to 'FILE', specifies that database information (such as host-name, port-number, user, and password) is specified in an sqlhosts file. When set to 'LDAP', specifies that this information is specified in an LDAP server
IfxSQLH_FILE	Example: http://host-name:port-number/sqlhosts.ius or file://D:/local/myown/sqlhosts.ius
IfxLDAP_URL	Example: ldap://host-name:port-number
IfxLDAP_IFXBASE	Example: Informix-base-DN
IfxLDAP_USER	
IfxLDAP_PASSWD	

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IfxSQLH_LOC		
IfxFET_BUF_SIZE	Overrides the default setting for the size of the fetch buffer for all data except large objects. The default size is 4096 bytes.	Ċ
IfxBIG_FET_BUF_SIZE	In IBM Informix Extended Parallel Server, Version 8.4, overrides the default size of the tuple buffer and allows it to be increased up to 2GB.	
<i>IfxUSEV5SERVER</i>	When set to 1, specifies that the Java program is connecting to an IBM Inform OnLine 5.x or IBM Informix SE 5.x or IBM Informix SE 7.x database server This environment variable is mandatory if you are connecting to an IBM Informix OnLine 5.x or IBM Informix SE 5.x or IBM Informix SE 7.x databas server.	nix ase
<i>IfxLOBCACHE</i>	Determines the buffer size for large object data that is fetched from the databaserver Possible values are: v A number greater than 0. The maximum number bytes is allocated in memory to hold the data. If the data size exceeds the LOBCACHE value, the data is stored in a temporary file; if a security violation occurs during creation of this file, the data is stored in memory. v Zero (0). The data is always stored in a file. If a security violation occurs, the driver makes attempt to store the data in memory. v A negative number. The data is always stored in memory. If the required amount of memory is not available, an error occurs.	ase c of on he no s r
IfxIFX_USEPUT	When set to 1, enables bulk inserts.	
IfxDELIMIDENT	When set to true, specifies that strings set off by double quotes are delimited identifiers	
IfxINFORMIXSTACKSIZE	Specifies the stack size, in kilobytes, that the database server uses for a particular client session	
IfxDBSPACETEMP	Specifies the dbspaces in which temporary tables are built	
<i>IfxDB_LOCALE</i>	Specifies the locale of the databaseIBM Informix JDBC Driver uses this variable to perform code-set conversion between Unicode and the database locale. Together with the CLIENT_LOCALE variable, the database server us this variable to establish the server processing locale. The DB_LOCALE and CLIENT_LOCALE values must be the same, or their code sets must be convertible.	ses
<i>IfxCLIENT_LOCALE</i>	Specifies the locale of the client that is accessing the database Provides defau for user-defined formats such as the GL_DATE format User-defined data typ can use it for code-set conversion. Together with the DB_LOCALE variable, the database server uses this variable to establish the server processing locale The DB_LOCALE and CLIENT_LOCALE values must be the same, or their code sets must be convertible.	lts bes
IfxDBDATE	Specifies the end-user formats of values in DATE columns Supported for backward compatibility; GL_DATE is preferred.	
IfxGL_DATE	Specifies the end-user formats of values in DATE columns This variable is supported in Informix database server versions 7.2x, 8.x, 9.x, and 10.x.	
IfxDBCENTURY	Enables you to specify the appropriate expansion for one- or two-digit year DATE values	
IfxSTMT_CACHE	When set to 1, enables the use of the shared-statement cache in a session. Thi feature can reduce memory consumption and speed query processing among different user sessions. The driver does not use this variable; it just passes the value to the server.	.S
IfxNODEFDAC	When set to YES, prevents default table and routine privileges from being granted to the PUBLIC user when a new table or routine is created in a databat that is not ANSI compliant. Default is NO.	ase
IfxDBTEMP	Specifies the full pathname of the directory into which you want IBM Inform Enterprise Gateway products to place their temporary files and temporary tables. The driver does not use this variable; it just passes the value to the server.	ix
IfxPSORT_DBTEMP	Specifies one or more directories to which the database server writes the temporary files it uses when performing a sort	

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IfxPSORT_NPROCS	Enables the database server to improve the performance of the parallel-process sorting package by allocating more threads for sorting
IfxDBUPSPACE	Specifies the amount of system disk space that the UPDATE STATISTICS statement can use when it simultaneously constructs multiple-column distributions
IfxPDQPRIORITY	Determines the degree of parallelism used by the database server
IfxIFX_DIRECTIVES	Determines whether the optimizer allows query optimization directives from within a query. This variable is set on the client. The driver does not use this variable; it just passes the value to the server.
<i>IfxIFX_EXTDIRECTIVES</i>	 Specifies whether the query optimizer allows external query optimization directives from the sysdirectives system catalog table to be applied to queries in existing applications. The default is OFF. Possible values: ON External optimizer directives accepted OFF External optimizer directives not accepted 1 External optimizer directives accepted 0 External optimizer directives not accepted
IfxOPTCOMPIND	Specifies the join method that the query optimizer uses
IfxINFORMIXCONRETRY	Specifies the maximum number of additional connection attempts that can be made to each database server by the client during the time limit specified by the value of INFORMIXCONTIME
IfxINFORMIXCONTIME	Sets the timeout period for an attempt to connect to the database server. If a connection attempt does not succeed in this time, the attempt is aborted and a connection error is reported. The default value is 0 seconds. This variable adds timeouts for blocking socket methods and for socket connections.
IfxINFORMIXOPCACHE	Specifies the size of the memory cache for the staging-area blobspace of the client application
IfxPLCONFIG	Specifies the name of the configuration file used by the high-performance loader
IfxPATH	Specifies the directories that should be searched for executable programs
IfxPLOAD_LO_PATH	Specifies the pathname for smart-large-object handles (which identify the location of smart large objects such as BLOB, CLOB, and BOOLEAN data types). The driver does not use this variable; it just passes the value to the server.
IfxOPT_GOAL	Specifies the query performance goal for the optimizer. Set this variable in the user environment before you start an application. The driver does not use this variable; it just passes the value to the server.
IfxDBANSIWARN	When set to 1, checks for Informix extensions to ANSI-standard syntax
IfxIFX_CODESETLOB	The value of this variable determines whether code-set conversion is done in memory in or in temporary files. If set to 0, code-set conversion uses temporary files. If set to a value greater than 0, code-set conversion occurs in the memory of the client computer, and the value represents the number of bytes of memory allocated for the conversion.
IfxIFX_LOCK_MODE_WAIT	The default value is 0 (do not wait for the lock). Sets the value of Informix-specific variable IFX_LOCK_MODE_WAIT. Possible values: '-1' WAIT until the lock is released. '0' DO NOT WAIT, end the operation, and return with error. 'nn' WAIT for nn seconds for the lock to be released.
IfxIFX_ISOLATION_LEVEL	 Sets the value of Informix-specific variable IFX_ISOLATION_LEVEL. Possible values: '1' - Dirty Read (equivalent to TRANSACTION_READ_UNCOMMITTED), '2' - Committed Read (equivalent to TRANSACTION_READ_COMMITTED), '3' - Cursor Stability (equivalent to TRANSACTION_READ_COMMITTED), '4' - Repeatable Read (equivalent to TRANSACTION_REPEATABLE_READ)

As indicated above the paramters of the options and preferences tabs are not required for a basic connection.

Figure 5.42. EEWininfconf07.png

OpenLink Single Tier D	SN Configuration
	Additional parameters: Drop Catalog name from DatabaseMetaData calls Drop Schema name from DatabaseMetaData calls Return an empty ResultSet for SQLStatistics Disable support of quoted identifier Disable support of search pattern escape Patch null size of SQLChar on: 4096
	< Back Next > Cancel

- *Row Buffer Size* This attribute specifies the number of records to be transported over the network in a single network hop. Values can range from 1 to 99.
- *Hide Login Dialog* Suppress the ODBC "Username" and "Password" login dialog box when interacting with your ODBC DSN from within an ODBC compliant application.
- *Read Only connection* Specify whether the connection is to be "Read-only". Make sure the checkbox is unchecked to request a "Read/Write" connection.
- *Drop Catalog from Meta calls* Enable this option to have the catalog name not appear for tables, views and procedures when requesting database meta-data.
- Drop Schema from Meta calls Enable this option to have the schema-name not appear for tables, views and procedures when requesting database meta-data.
- *SQLStatistics disabled* Check this box to have SQLStatistics() return an empty resultset. Use this if the underlying database does not support retrieving statistics about a table (e.g. what indexes there are on it).
- *No support of quoted identifier* If it is set, the call SQLGetInfo for 'SQL_IDENTIFIER_QUOTE_CHAR' will return the space (" "). It can be used if DBMS doesn't support quoted SQL like select * from "account"
- *No support of search string escape* If it is set, the call SQLGetInfo for 'SQL_LIKE_ESCAPE_CLAUSE' will return the space (" "). It can be used if DBMS doesn't support SQL escape patterns
- *Patch of NULL size of SQL_CHAR* If set this option overrides the size of SQL_CHAR column type returned by the database with the value set in the text box (in bytes). With the default value of 0 the driver uses the size returned by the database.
- *SQL_DBMS Name* Manually override the SQLGetInfo(SQL_DBMS_NAME) response returned by the driver. This is know to be required for products like Microsoft InfoPath for which the return the value should be "SQL Server".

Figure 5.43. EEWininfconf08.png

OpenLink Single Tier DS	iN Configuration	×
	Additional connect parameters: Read-only connection Defer fetching of long data Disable interactive login Row buffer size: 60 Max rows override: 0 Initial SQL: Dynamic cursor sensitivity: Low Enable logging to the log file:	
	< Back Next > Cancel	

- *Initialization SQL* Lets you specify a file containing SQL statements that will be run against the database upon connection, automatically.
- *Cursor Sensitivity* Enables or disables the row version cache used with dynamic cursors. When dynamic cursor sensitivity is set high, the Cursor Library calculates checksums for each row in the current rowset and compares these with the checksums (if any) already stored in the row version cache for the same rows when fetched previously. If the checksums differ for a row, the row has been updated since it was last fetched and the row status flag is set to SQL_ROW_UPDATED. The row version cache is then updated with the latest checksums for the rowset. From the user's point of view, the only visible difference between the two sensitivity settings is that a row status flag can never be set to SQL_ROW_UPDATED when the cursor sensitivity is low. (The row status is instead displayed as SQL_ROW_SUCCESS.) In all other respects, performance aside, the two settings are the same deleted rows don't appear in the rowset if their keys fall within the span of the rowset. If your application does not need to detect the row status SQL_ROW_UPDATED, you should leave the 'High Cursor Sensitivity' checkbox unchecked, as performance is improved. The calculation and comparison of checksums for each row fetched carries an overhead. If this option is enabled, the table oplrvc must have been created beforehand using the appropriate script for the target database.
- *MaxRows Override* Allows you to define a limit on the maximum number of rows to returned from a query. The default value of 0 means no limit.
- *Defer fetching of long data* Defer fetching of LONG (BINARY, BLOB etc.) data unless explicitly requested in query. This provides significant performance increase when fields in query does not include LONG data fields.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.

Figure 5.44. EEWininfconf09.png

OpenLink ODBC Driver (Express Edition) User Guide

LANK AL	Additional connect compatibility parameters:
A Parta	Disable Autocommit
and an ion and	Disable rowset size limit
J. S. Cano	Multiple Active Statements Emulation
	SQL_DBMS_NAME:
COPENLINK SOFTWARE	

- *Disable AutoCommit* Change the default commit behaviour of the OpenLink Lite Driver. The default mode is AutoCommit mode (box unchecked).
- *Disable Rowset Size Limit* Disable the limitation enforced by the cursor library. The limitation is enforced by default to prevent the Driver claiming all available memory in the event that a resultset is generated from an erroneous query is very large. The limit is normally never reached.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.

Click on the Test Data Sourcebutton to verify successful connection can be made to the database.

Figure 5.45. EEWininfconf10.png

OpenLink Single Tier D	ISN Configuration			
(m)	A new ODBC Datasource will be created with the following configuration:			
	OpenLink Informix Driver (Express Edition) Version: 1.0 File: C:\Program Files\OpenLink Software\UDA\v60\bin\ntl5eeinf.d			
Running connectivity tests				
N-	Attempting connection Connection established Verifying option settings Actual database is (Informix Dynamic Server) Disconnecting from server			
	TESTS COMPLETED SUCCESSFULLY!			
C OPENLINK SOFTWARE	Test Data Source Test XA Connection			
	< Back Finish Cancel			

7 Chapter 6. OpenLink ODBC Driver for Ingres (Express Edition)

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- OpenLink ODBC Driver for Ingres (Express Edition) for Mac OS X
 - ♦ Installation Guide
 - ♦ Configuration
- OpenLink ODBC Driver for Ingres (Express Edition) for Windows
 - ♦ Installation
 - Configuration

7.1 OpenLink ODBC Driver for Ingres (Express Edition) for Mac OS X

7.1.1 Installation Guide

The OpenLink ODBC Driver for Ingres (Express Edition) is distributed as a Disk image (DMG) file. Simply double click on the disk image 'mul6eing.dmg' to extract the installer mpkg file:

Figure 6.1. ee-ing-00.gif

○ ○ ○ ○ ○ ○ □ □ □ □ □ □ □ □ □ □ □	ers Q
 Network Macintosh HD Microsoft Messenger ▲ DAV ▲ 	mul6eing.dmg
Titem, 46.64 GB a	vailable

Double click on the mpkg file to run the installer and following the on screen instriuction as indicated below to complete the installation:



Installer Welcome Dialog for the OpenLink ODBC Driver for Ingres (Express Edition):

Figure 6.3. ee-ing-02.gif



Please review the readme file for installation requirements and known issues:



Please read the software license agreement before continuing your installation:

Figure 6.5. ee-ing-04.gif	Install OpenLink Express Edition driver for Ingres			
	Software License Agreement			
⊖ Introduction	English			
⊖ Read Me	OpenLink Software License Agreement			
License	License for Express Edition for Ingres			
Select Destination	Quantity			
Installation Type	Quantity One or more copies of this product limited to 2 concurrent connections			
Install	enforced by the Express Edition for Ingres License Manager. Additional license options shall be reflected in your Express Edition for Ingres			
Finish Up	License file.			
	<u>Use</u> You (<i>an entity or a person</i>) can make use of the software identified above (<i>the "Software"</i>) in the quantity stated above if you meet the following conditions:			
	OpenLink Client Components (Express Edition for Ingres) You must acquire one copy of the software for each client on which			
e	Print Save Go Back Continue			

Select destination volume for driver installation:

04 .0



Choose to perform a custome or default installation of the driver:

Figure 6.7. ee-ing-06.gif

💛 🖯 💛 🥪 İns	tall OpenLink Express Edition driver for Ingres			
Easy Install on "Macintosh HD"				
 Introduction Read Me License Select Destination Installation Type Install Finish Up 	Click Upgrade to perform a basic installation of this software package on the volume "Macintosh HD."			
e (Customize Go Back Upgrade			

If you chose the custom option select which of the components below are to be installed:

	Custom Install on "Macintosh HD"		
Introduction Read Me License Select Destination Installation Type	Package Name ▶ ✓ iODBC Driver Manager and SDK ✓ License Manager ✓ Express Edition driver for Ingres ✓ Online Documentation (Single Tier)	Action Upgrade Upgrade Upgrade	Size O bytes O bytes O bytes O bytes
Install Finish Up	Space Required: 0 bytes Remai	ining: 46.6GB	
	(Fasy Install)	o Back	Ungrade

7.1.1	Installation Guide	

The Software must be installed as a user with Administrative privileges on the machine:

Figure 6.9. ee-ing-08.gif

😝 🔿 💦 😺 Install OpenLink Express Edition driver for Ingres			
-	Authenticate		
⊖ Introductior ⊖ Read Me	Installer requires that you type your password.	Size Dytes Dytes Dytes	
License	Name: Username	oytes	
Select Desti	Password:		
 Install 	► Details		
Finish Up	? Cancel OK		
	Space Required: 0 bytes Remaining: 46.6GB		
R	Easy Install Go Back U	pgrade	

After the driver has been installed you will be prompted for a license file. If a license file already exists on the machine then select the 'use exisiting file' option. A trial (try) or full (buy) license can be obtain by selecting the 'try and buy' option which loads our online try and buy web page:

Figure 6.10. ee-ing-09.gif

\sim	Select license file	
Q	The installation requires a license file (ee_ing_lt.lic) for operation.	
	Press the 'Try or Buy' button to request a license using your browser. You will receive a license as an email attachement.	
	Press the 'Use existing License' button if you have already recived a license.	
	On the next dialog, press the 'Choose' button to select the license file for use or 'Cancel' to continue without one.	
	Try or Buy License Use existing License	

To obtain the trial license you must be a registered user on the OpenLink Web site and login with the username (e-mail address) and password for that user. Click on the 'Shop' link to visit our online shop cart to purchases a full license if required:



© 2005 OpenLink Software

Click on the 'download license' button to obtain the license file immediately and save to your desktop. Alternatively an auto e-mail will be sent to the registered users e-mail address with a link to their OpenLink Data Space (ODS) where all trial and full license files will be stored in the Briefcase for download at a later date.

Figure 6.12. ee-ing-11.gif

00

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OpenLink ODBC Driver (Express Edition) User Guide





Select the license file to be used for the installation:

Figure 6.13. ee-ing-12.gif

	Changes your linearce file		
000	Choose your license file		
You should have received a license file from OpenLink as an attachement to an email.			
	licenses *	Q search	
A Network	Name	A Date Modified	
Wetwork	😡 ee_ing_lt.lic	Today	
Macintosh HD			
🦲 Microsoft M 🔺			
DAV			
OpenLink-I 🔺	•		
Desktop			
root 🁚			
Applications			
Documents	C		
New Folder	Cancel	Choose	

Installation is complete:



7.1.2 Configuration

To configure an ODBC DSN, run the OpenLink iODBC Administrator located in the /Applications/iODBC folder:


Click on the add button to Choose the ODBC Driver the DSN should be created for:

e 6.16. ee-in	g-15.gif	iODBC I	Data Source Ad	ministrator		
User DSN	System DSN	File DSN	ODBC Drivers	Connection Pooling	Tracing	About
ser Data So	urces					
Name	An ODBC User da	iption ta source st	ores information	about how to connect t		Add emove nfigure Test
	aata provider. A l	user data so	urce is visible on	y to you.	ncel	ОК

Choose the OpenLink Ingres Driver (Express Edition) v6.0 from the list of available drivers:

Figure 6.17. ee-ing-16.gif

Choose an ODBC Driver	
Select a driver for which you want to setup a data sour Name OpenLink DB2 Driver (Express Edition) v6.0 OpenLink Firebird Driver (Express Edition) v6.0 OpenLink Firebird Driver (Express Edition) (Unicode) v6.0 OpenLink Generic ODBC Driver (Unicode) v6.0 OpenLink Informix Driver (Express Edition) v6.0 OpenLink Ingres Driver (Express Edition) (Unicode) v6.0 OpenLink Ingres Driver (Express Edition) (Unicode) v6.0	ce.

In the Data Source tab, select a suitable DSN name and optional description for the Data Source to be created:

Figure 6.18. ee-ing-17.gif

OpenLink ODBC for Ingres (Express Edition) Setup Wizard					
	ata Source Connec	tion Options Preferences Test			
TL	What name do you DSN	want to use to refer to this data source ? ing_test_dsn			
	How do you want to describe this data source ?				
ODBC	Description				
Cancel	Finish	Go Back Continue			

The Connection Tab requests the minimum paramters required to make a connection to the target database:

Figure 6.19. ee-ing-18.gif

OpenLink ODBC	for Ingres	(Express Edition) Setup Wizard
Data Source C	onnection	Options Preferences Test
Which server	do you war	nt connect to?
11	Host	host.domain
	PortName	117
FC	Database	testdb
TY	User name	ingres
		Advanced
Cancel Finish		Go Back Continue

- Hostname the hostname of the server on which the Ingres Node is running
- PortName the Ingres instance Node name
- Database the ase name of a valid database on the Node
- Username the name of a valid Ingres user
- Advanced additional optional configuration parameters:

Table 6.1.

Role used in DBMS.
Group used in DBMS.
User ID for the DBMS session (-u flag).
User's DBMS password.
Use pooled connection: 'off' or 'on'.
Autocommit cursor handling: 'dbms', 'single', 'multi'.
Select loop processing: 'off' or 'on'.
Default cursor concurrency mode, which determines the concurrency of cursors that have no concurrency explicitly assigned. Available options are: 'dbms', 'update', 'readonly'.
Allows the JDBC application to control the portions of the vnode information that are used to establish the connection to the remote DBMS server. Available options are: 'connect', 'login'
Specifies the Java character encoding used for conversions between Unicode and character data types. Generally, the character encoding is determined automatically by the driver from the DAS installation character set. This property allows an alternate character encoding to be specified (if desired) or a valid character encoding to be used when the driver is unable to map the server's character set.
Specifies the Ingres timezone associated with the client's location. Corresponds to the Ingres environment variable II_TIMEZONE_NAME and is assigned the same values. This property is not used directly by the driver but is sent to the DBMS and affects the processing of dates.
Specifies the character to be used as the decimal point in numeric literals. Corresponds to the Ingres environment variable II_DECIMAL and is assigned the same values. This property is not used directly by the driver but is sent to the DBMS and affects the processing of query text.
Specifies the Ingres format for date literals. Corresponds to the Ingres environment variable II_DATE_FORMAT and is assigned the same values. This property is not used directly by the driver, but is sent to the DBMS and affects the processing of query text.
Specifies the Ingres format for money literals. Corresponds to the Ingres environment variable II_MONEY_FORMAT and is assigned the same values. This property is not used directly by the driver but is sent to the DBMS and affects the processing of query text.

7.1.2 Configuration

Specifies the precision of money data values. Corresponds to the Ingres environment variable II_MONEY_PREC and is assigned the same values. This property is not used directly by the driver but is sent to the DBMS and affects the processing of money values.

As indiacted above the paramters of the options and preferences tabs are not required for a basic connection:

Figure 6.20. ee-ing-19.gif

OpenLink ODBC for Ingres (Express Edition) Setup Wizard				
Data	a Source Connection Options P	Preferences Test		
2	Row buffer size 60	Hide login dialog		
	Jet options Drop catalog from meta calls No support of quoted identifier	Drop schema from meta calls SQL statistic disabled		
TV	No support of search string escap Patch of NULL size of SQL_CHAR	0		
	SQL DBMS name			
Cancel	inish j	Go Back Continue		

- *Row Buffer Size* This attribute specifies the number of records to be transported over the network in a single network hop. Values can range from 1 to 99.
- *Hide Login Dialog* Suppress the ODBC "Username" and "Password" login dialog box when interacting with your ODBC DSN from within an ODBC compliant application.
- *Read Only connection* Specify whether the connection is to be read-only. Make sure the checkbox is unchecked to request a read/write connection.
- *Drop Catalog from Meta calls* Enable this option to have the catalog name not appear for tables, views and procedures when requesting database meta-data.
- Drop Schema from Meta calls Enable this option to have the schema-name not appear for tables, views and procedures when requesting database meta-data.
- *SQLStatistics disabled* Check this box to have SQLStatistics() return an empty resultset. Use this if the underlying database does not support retrieving statistics about a table (e.g. what indexes there are on it).
- *No support of quoted identifier* If it is set, the call SQLGetInfo for 'SQL_IDENTIFIER_QUOTE_CHAR' will return the space (" "). It can be used if DBMS doesn't support quoted SQL such as select * from "account"
- *No support of search string escape* If it is set, the call SQLGetInfo for 'SQL_LIKE_ESCAPE_CLAUSE' will return the space character (" "). It can be used if DBMS doesn't support SQL escape patterns
- *Patch of NULL size of SQL_CHAR* If set this option overrides the size of SQL_CHAR column type returned by the database with the value set in the text box (in bytes). With the default value of 0 the driver uses the size returned by the database.
- *SQL_DBMS Name* Manually override the SQLGetInfo(SQL_DBMS_NAME) response returned by the driver. This is know to be required for products like Microsoft InfoPath for which the return the value should be "SQL Server".

Figure 6.21. ee-ing-20.gif

Ope	nLink ODBC for Ingres (Express Edition) Setup Wizard			
D	ata Source Connection Options Preferences Test			
	Initialization SQL Browse			
T	Cursor sensitivity Low			
	Max rows override 0			
TO	Disable autocommit			
	Disable rowset size limit			
	☑ Defer fetching of long data			
ODE 2	Multiple Active Statements Emulation			
Cancel	Finish Go Back Continue			

- *Initialization SQL* Lets you specify a file containing SQL statements that will be run against the database upon connection, automatically.
- *Cursor Sensitivity* Enables or disables the row version cache used with dynamic cursors. When dynamic cursor sensitivity is set high, the Cursor Library calculates checksums for each row in the current rowset and compares these with the checksums (if any) already stored in the row version cache for the same rows when fetched previously. If the checksums differ for a row, the row has been updated since it was last fetched and the row status flag is set to SQL_ROW_UPDATED. The row version cache is then updated with the latest checksums for the rowset. From the user's point of view, the only visible difference between the two sensitivity settings is that a row status flag can never be set to SQL_ROW_UPDATED when the cursor sensitivity is low. (The row status is instead displayed as SQL_ROW_SUCCESS.) In all other respects, performance aside, the two settings are the same deleted rows don't appear in the rowset if their keys fall within the span of the rowset. If your application does not need to detect the row status SQL_ROW_UPDATED, you should leave the 'High Cursor Sensitivity' checkbox unchecked, as performance is improved. The calculation and comparison of checksums for each row fetched carries an overhead. If this option is enabled, the table oplrvc must have been created beforehand using the appropriate script for the target database.
- *MaxRows Override* Allows you to define a limit on the maximum number of rows to returned from a query. The default value of 0 means no limit.
- *Disable AutoCommit* Change the default commit behaviour of the OpenLink Lite Driver. The default mode is AutoCommit mode (box unchecked).
- *Disable Rowset Size Limit* Disable the limitation enforced by the cursor library. The limitation is enforced by default to prevent the Driver claiming all available memory in the event that a resultset is generated from an erroneous query is very large. The limit is normally never reached.
- *Defer fetching of long data* Defer fetching of LONG (BINARY, BLOB etc.) data unless explicitly requested in query. This provides significant performance increase when fields in query does not include LONG data fields.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.

Click on the 'Test Data Source' button to make a connection to the database to verify connectivity:

Figure 6.22. ee-ing-21.gif

OpenLink ODBC for Ir	ngres (Express Edition) Setup Wizard
Data Source Connec	ction Options Preferences Test
A new ODBC Datasource will be create	d with the following configuration:
Data Source Name: ingea UserName: ingres URLString: {ServerName=host.doma FetchBufferSize: 60	in;PortName=II7;DatabaseName=testdb;}
MaxRows: 0 NoAutoCommit: No NoRowsetSizeLimit: No	4
С	est Data Source
Cancel	Go Back Finish

Enter a vaild username and pasword for the database:

gure 6.23. ee-ing OpenLink	-22.gif ODBC for In	gres (Expre	ess Edition) L	ite Login
Identity	Connection	Options	Preferences	About
	DSN :	(File DSN)	
Usernar	ne ir	ngres		
Passwor	rd .			
		E	Cancel	Connect

A successful connection to the database has been made:



7.2 OpenLink ODBC Driver for Ingres (Express Edition) for Windows

7.2.1 Installation

The OpenLink ODBCDriver for Ingres (Express Edition) is distributed as a Windows MSI installer. Simply double click on the installer 'ntl6eing.msi' to commence the installation:

Figure 6.25. EEWininginst01.png



Installer Welcome Dialog for the OpenLink ODBCDriver for Ingres (Express Edition):



Please read the software license agreement and accept before continuing your installation:

Figure 6.27. EEWininginst03.png

You must agree with the license ag	reement below to proceed.	
OPENLINK SOFTWARE	LICENSE AGREEMENT	
TYPE		
License for OpenLink Universal Da	ata Access Driver Suite.	
QUANTITY		
One or more copies of this product connections, maintained by the ser license options shall be reflected in	limited to 2 concurrent users, and 4 c rver based OpenLink License Manag) your registration key.	oncurrent er. Additional
USE		
You (an entity or a person) can mai "Software") in the quantity stated a	ke use of the software identified abov above if you meet the following condit	re (the ions:
OpenLink Server Components (Op	ent ink Request Broker & Opent ink D)atabase 🛛 🗾
I accept the license agreement		

Before installation you will be prompted for a license file. If a license file already exists on the machine, then select the 'use exisiting file' option. A trial (try) or full (buy) license can be obtained by selecting the 'try and buy' option, which loads OpenLink's online try and buy web page:

Figure 6.28. EEWininginst04.png			
🔂 OpenLink Ingres ODBC Driver (Expr	ress Edition) Setu	ıp	_ 🗆 🗵
Product License Select the folder containing the produ	uct license.		Ó
This product requires a pr automatically place in the 'ee_ing_lt.lic' license file c in.	oduct license for us correct location for lick the 'Browse' bu	e, which the installer you. If you already h tton and locate the fi	can ave a older it is
C:V		Br	rowse
Alternatively, click the 'Try & Buy' but to request a license, if you don't have I don't want to install a license file	ton to use your Wel e one yet. e right now.	o browser Try	& Buy
	< Back	Next >	Cancel

To obtain the trial license, you must be a registered user on the OpenLinkWeb site and login with your username (e-mail address) and password. Click on the 'Shop' link to visit OpenLink's online shop cart to purchase a full license, if required:

Click on the 'download license' button to immediately obtain the license file and save it to your desktop. Alternatively, an auto-generated e-mail will be sent to your registered e-mail address. This email will contain a link to your OpenLinkData Space (ODS). The OpenLInkData Space (ODS) contains copies of all trial and full license files in a Briefcase for download at a later date.



Universal Data Access Drivers (ODBC, JDBC, ADO) Download

You have selected Single-Tier (Express Edition) ODBC Driver for Ingres (Release 6.0) for use on Windows 98/NT/2000/XP/2003 (32 Bit) (x86)

Try Single-Tier (Express Edition)	Buy Single-Tier (Express Edition)
Welcome back Miss Netrista Khatam Check my Details Next > Change Login	You can proceed directly to online sales with this product to purchase a full license. Shop
158	

Go back to the start to download more software.

Done	

Select the license file to be used for the installation:

ook in: 🛛 🖃 Loc	al Disk (C:)		-
CA_LIC DB2 DB2LOG Documents and Settin Geistkraft IFMXDATA	KPCMS My Documents My Titles S Netrista NSR OpenEdge	Perl Program Files Progress temp tmp VBNET	
Ider name:	Соренских) ОК

Choose to perform a custom, typical or complete installation of the driver:

Figure 6.31. EEWininginst07.png 🙀 OpenLink Ingres ODBC Driver (Express Edition) Setup - 🗆 × Select Installation Type Select the desired installation type. **Typical** Installs the most common program features. This option is recommended for most users. Complete All program features will be installed. This option is recommended for the best performance. Custom Choose which application features you want installed and where they will be installed. This option is recommended for advanced users. < Back Next> Cancel

Select the features to be installed:

Figure 6.32. EEWininginst08.png

OpenLink Express Edition Drivers Ingres Samples	This feature requires 0 on your hard drive. It ha 2 of 2 subfeatures selected. The subfeatures require 1260KB on your hard drive.
)escription:	

Click the install button to begin the installation of components:

Figure 6.33. EEWininginst09.png

7.2.1 Installation

🙀 OpenLink Ingres ODBC Driver (Express Edi	tion) Setu	р	
Ready to Install The installer is ready to begin the Custom inst	allation.		ø
Click Install to begin the installation. If you wa settings, click Back. Click Cancel to exit the ir	nt to review nstaller.	or change any ol	f your installation
<	Back	Install	Cancel

Installation in progress:

Figure 6.34. EEWininginst10.png
🔐 OpenLink Ingres ODBC Driver (Express Edition) Setup
Installing OpenLink Ingres ODBC Driver (Express Edition)
Please wait while the installer installs OpenLink Ingres ODBC Driver (Express Edition). This may take several minutes.
Status: Registering user
Time remaining: 0 seconds
Cancel

The Software installation is complete and ready for use:

Figure 6.35. EEWininginst11.png



7.2.2 Configuration

To configure an ODBCDSN, run the ODBCAdministrator located in the Administrative Tools section of the Control Panel:

Figure 6.36. EEWiningconf01.png



Click on the Drivers tab to confirm the OpenLinkIngres ODBCDriver [Express Edition][6.0] has been successfully installed:

Figure 6.37. EEWiningconf02.png

💞 ODBC Data Source Administrator		? 🗙		
User DSN System DSN File DSN Drivers Tracing Connectio	n Pooling Abo	out		
ODBC Drivers that are installed on your system:				
Name	Version	~		
OpenLink Ingres ODBC Driver (Express Edition) (Unicode) [6.0]	1.00.00.00	- 1		
OpenLink Ingres ODBC Driver (Express Edition) [6.0]	1.00.00.00			
OpenLink Lite for DB2 (Unicode) [6.0]	1.12.00.00			
OpenLink Lite for DB2 [6.0]	1.12.00.00			
OpenLink Lite for Informix 2000 (Unicode) [6.0]	1.39.00.00			
OpenLink Lite for Informix 2000 [6.0]	1.39.00.00			
OpenLink Lite for Ingres II [6.0]	1.16.00.00			
OpenLink Lite for JDK 1.2 (Unicode) [6.0]	1.15.00.00			
OpenLink Lite for JDK 1.2 [6.0]	1.15.00.00	_		
OpenLink Lite for JDK 1.3 (Unicode) [6.0]	1.15.00.00	~		
	>			
An ODBC driver allows ODBC-enabled programs to get information from ODBC data sources. To install new drivers, use the driver's setup program. OK Cancel Apply Help				

From either the User or System DSN tabs, click on the Add button and select the OpenLinkIngres ODBCDriver [Express Edition][6.0] from the list :

Figure 6.38. EEWiningconf03.png

Create New Data Source	Select a driver for which you want to set up a data source. Name OpenLink Ingres ODBC Driver (Express Edition) (Unicc OpenLink Ingres ODBC Driver (Express Edition) (6.0) OpenLink Lite for DB2 (Unicode) [6.0] OpenLink Lite for DB2 [6.0] OpenLink Lite for Informix 2000 (Unicode) [6.0] OpenLink Lite for Informix 2000 [6.0] OpenLink Lite for Informix 2000 [6.0] OpenLink Lite for JDK 1.2 (Unicode) [6.0] OpenLink Lite for JDK 1.2 (Unicode) [6.0] OpenLink Lite for JDK 1.2 (Unicode) [6.0]
	< Back Finish Cancel

In the Data Source tab, select a suitable DSN name and optional description for the Data Source to be created:

Figure 6.39. EEWiningconf04.png

OpenLink Single Tier I	OSN Configuration
	This wizard will help you create an ODBC data source that you can use to connect to a remote Database. What name do you want to use to refer to the data source? Name: Ingres EE Demol How do you want to describe the data source? Description:
	< Back Next > Cancel

The Connection tab requests the minimum parameters required to make a connection to the target database:

OpenLink Single Tier D	SN Configuration
	Which server do you want to connect to? Host opllinux PortName II7 Database testsuite ✓ Connect now to verify that all settings are correct. Login ID ingres Password: xxxxxxxxxxxxxxxxx
	< Back Next > Cancel

- *Host* : This is the fully qualified hostname or IP address of the machine hosting the DBMS you wish to access, e.g., dbms-server.example.com, or 192.168.155.123. Any hostname which will be resolved by your local DNS is acceptable.
- PortName : This is the port on which Ingres is listening
- Database : This is the name of the Ingres database to which you want to connect
- Login ID : This is a valid user name for the Ingres database

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• Password : This is a valid password for the Ingres database

Click next to verify that all settings are correct or uncheck the check box to delay testing to a later stage.

The advanced button displays additional, optional parameters that can be configured:

	Attribute	Value	1
	RoleName		
	GroupName		
	DbmsUser		
	DbmsPassword		
	ConnectionPool		
	AutocommitMode	dbms	
	SelectLoops	off	
	CursorMode	dbms	~
<			>

Table 6.2.	
RoleName	Role used in DBMS.
GroupName	Group used in DBMS.
DbmsUser	User ID for the DBMS session (-u flag).
DbmsPassword	User's DBMS password.
ConnectionPool	Use pool connectino: 'off' or 'on.'
AutocommitMode	Autocommit cursor handling: 'dbms', 'single', 'multi. (default - 'dbms')
SelectLoops	Select loop processing: 'off' or 'on.' (default - 'off')
CursorMode	Default cursor concurrency mode, which determines the concurrency of cursors that have no concurrency explicitly assigned. Available options are: 'dbms', 'update', 'readonly.' (default - 'dbms')
VnodeUsage	Allows the JDBC application to control the portions of the vnode information that are used to establish the connection to the remote DBMS server. Available options are 'connect','login' (default - 'connect').
CharEncode	Specifies the character encoding for the conversions between Unicode and character data types. Generally, the character encoding is determined automatically by the driver from the DAS installation character set. This property allows an alternate character encoding to be specified (if desired) or a valid character encoding to be used when the driver is unable to map the server's character set.
TimeZone	Specifies the Ingres timezone associated with the client's location. Corresponds to the Ingres environment variable II_TIMEZONE_NAME and is assigned the same values. This property is not used directly by the driver but is sent to the DBMS and affects the processing of dates.
DecimalChar	Specifies the character to be used as the decimal point in numeric literals. Corresponds to the Ingres environment variable II_DECIMAL and is assigned the same values. This property is not used directly by the driver but is sent to the DBMS and affects the processing of query text.
DateFormat	Specifies the Ingres format for date literals. Corresponds to the Ingres environment variable II_DATE_DECIMAL and is assigned the same values. This property is not used directly by the driver but is sent to the DBMS and affects the processing of query text.
MoneyFormat	Specifies the Ingres format for money literals. Corresponds to the Ingres environment variable II_MONEY_FORMAT and is assigned the same values. This property is not used directly by the

driver but is sent to the DBMS and affects the processing of query text..

Specifies the precision of money data values. Corresponds to the Ingres environment variableMoneyPrecisionII_MONEY_PREC and is assigned the same values. This property is not used directly by the driver
but is sent to the DBMS and affects the processing of money values.

As indicated above, the parameters on the options and preferences tabs are not required for a basic connection.

Figure 6.42. EEWiningcon	f17.png	
OpenLink Single Tier D	N Configuration	×
	Additional parameters: Drop Catalog name from DatabaseMetaData calls Drop Schema name from DatabaseMetaData calls Return an empty ResultSet for SQLStatistics Disable support of quoted identifier Disable support of search pattern escape Patch null size of SQLChar on: 4096	
	< Back Next > Cancel	

- *Drop Catalog name from DatabaseMetaData calls* Enable this option to have the catalog name not appear for tables, views, and procedures when requesting database meta-data.
- *Drop Schema name from DatabaseMetaData calls* Enable this option to have the schema-name not appear for tables, views, and procedures when requesting database meta-data.
- *Return an empty ResultSet for SQLStatistics* Check this box to have SQLStatistics() return an empty resultset. Use this if the underlying database does not support retrieving statistics about a table, e.g., what indexes there are on it.
- *Disable support of quoted identifier* If it is set, the call SQLGetInfo for 'SQL_IDENTIFIER_QUOTE_CHAR' will return the space (" "). It can be used if the DBMS does not support quoted SQL, e.g., select * from "account."
- *Disable support of search pattern escape* If it is set, the call SQLGetInfo for 'SQL_LIKE_ESCAPE_CLAUSE' will return the space (" "). It can be used if the DBMS does not support SQL escape patterns.
- *Patch of NULL size of SQL_CHAR* If set, this option overrides the size of SQL_CHAR column type returned by the database with the value set in the text box (in bytes). With the default value of 0, the driver uses the size returned by the database.

Figure 6.43. EEWiningconf08.png

OpenLink Single Tier D	SN Configuration	×
	Additional connect parameters: Read-only connection Defer fetching of long data Disable interactive login Row buffer size: 60 Max rows override: 0 Initial SQL: Dynamic cursor sensitivity: Low Enable logging to the log file:	
	< Back Next > Cancel	

- *Disable Interactive Login* Suppress the ODBC "Username" and "Password" login dialog box when interacting with your ODBC DSN from within an ODBC compliant application.
- *Row Buffer Size* This attribute specifies the number of records to be transported over the network in a single network hop. Values can range from 1 to 99.
- *Max rows override* Allows you to define a limit on the maximum number of rows to be returned from a query. The default value of 0 means no limit.
- *Initial SQL* Lets you specify a file containing SQL statements that will be automatically run against the database upon connection.
- *Dynamic Cursor Sensitivity* Enables or disables the row version cache used with dynamic cursors. When dynamic cursor sensitivity is set high, the Cursor Library calculates checksums for each row in the current rowset and compares these with the checksums (if any) already stored in the row version cache for the same rows when fetched previously. If the checksums differ for a row, the row has been updated since it was last fetched, and the row status flag is set to SQL_ROW_UPDATED. The row version cache is then updated with the latest checksums for the rowset. From the user's point of view, the only visible difference between the two sensitivity settings is that a row status flag can never be set to SQL_ROW_UPDATED, when the cursor sensitivity is low. (The row status is instead displayed as SQL_ROW_SUCCESS.) In all other respects, performance aside, the two settings are the same deleted rows do not appear in the rowset if their keys fall within the span of the rowset. If your application does not need to detect the row status SQL_ROW_UPDATED, you should leave the 'High Cursor Sensitivity' checkbox unchecked, as performance is improved. The calculation and comparison of checksums for each row fetched carries an overhead. If this option is enabled, the table oplrvc must have been created beforehand using the appropriate OpenLink script for the target database.
- *Enable logging to the log file:* Specifies the full path to a text file. If the associated checkbox is checked, and a file is passed, the driver will log auto-generate a clientside ODBC trace.

Figure 6.44. EEWiningconf09.png

OpenLink Single Tier D	SN Configuration	×
	Additional connect compatibility parameters: Enable Microsoft Jet engine options Disable Autocommit Disable rowset size limit Multiple Active Statements Emulation SQL_DBMS_NAME:	
	< Back Next > Cancel	

- *Disable AutoCommit* Change the default commit behaviour of the OpenLink Driver. The default mode is AutoCommit (box unchecked).
- *Disable Rowset Size Limit* Disable the limitation enforced by the cursor library. The limitation is enforced by default to prevent the Driver claiming all available memory in the event that a resultset generated from an erroneous query is very large. The limit is normally never reached.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.
- *SQL_DBMS Name* Manually override the SQLGetInfo(SQL_DBMS_NAME) response returned by the driver. This is required for products like Microsoft InfoPath for which the return value must be "SQL Server".

Click on the Test Data Sourcebutton to verify that a successful connection can be made to the database.

Figure 6.45. EEWiningconf10.png



8 Chapter 7. OpenLink ODBC Driver for MySQL (Express Edition)

Table of Contents

- OpenLink ODBC Driver for MySQL (Express Edition) for Mac OS X
 - ♦ Installation Guide
 - ♦ Configuration
- OpenLink ODBC Driver for MySQL (Express Edition) for Windows
 - ♦ Installation
 - Configuration

8.1 OpenLink ODBC Driver for MySQL (Express Edition) for Mac OS X

8.1.1 Installation Guide

The OpenLink ODBC Driver for MySQL (Express Edition) is distributed as a Disk image (DMG) file. Simply double click on the disk image 'mul6emys.dmg' to extract the installer mpkg file:



Double-click on the mpkg file to run the installer. Follow the on-screen instructions as indicated below to complete the installation:

Figure 7.2. ee-mys-01.png

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When prompted, permit the verification script to run. This simply checks to see that you are running a version of Mac OS X later than 10.3.0:

Figure 7.3. ee-mys-02.png



Review the Welcome message to confirm you're installing the right driver:

Figure 7.4. ee-mys-03.png



Review the *ReadMe* for installation requirements and any known issues:

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Figure 7.5. ee-mys-04.png $\Theta \Theta \Theta$ 🥪 Install OpenLink Express Edition driver for MySQL Important Information ٠ Release 6.0, April 2006 ÷ Introduction This installation program will install the following Universal Binary Read Me Format components: License OpenLink Express Edition for MySQL Select Destination OpenLink iODBC Driver Manager Installation Type OpenLink iODBC Administrator OpenLink iODBC Sample Program Install Finish Up **Minimum System Requirements** Mac OS X 10.3.9 or above **Known ODBC-Compliant Application Issues** 4 REALbasic variants through Version 4.0 were not fully ODBC-¥ OCV W 4 5 --- - ---1 -11 1 Print... Go Back Save... Continue C

Please read and agree to the Software License Agreement before continuing your installation:

	Software License Agreement			
Introduction	English			
Read Me	OpenLink Software License Agreement			
O License	License for Express Edition for MySQL			
Select Destination				
Installation Type	Quantity One or more copies of this product limited to 2 concurrent connections			
Install	nforced by the Express Edition for MySQL License Manager.			
Finish Up	MySQL License file.			
	<u>Use</u> You (an entity or a person) can make use of the software identified above (the "Software") in the quantity stated above if you meet the following conditions:			
	<u>OpenLink Client Components (Express Edition for MySQL)</u> You must acquire one copy of the software for each client on which			
	Print Save Go Back Continue			

To continue installing the the software license agree	software, you must agree to the terms of ement.
Click Agree to continue of	r click Disagree to cancel the installation.
	Disagree Agree

Select the destination volume for driver installation:

Figure 7.8. ee-mys-07.png



Accept the default installation of the driver, or click *Customize* to select specific components for installation:

Go Back

Continue

Figure 7.9. ee-mys-08.png $\Theta \Theta \Theta$ 🥪 Install OpenLink Express Edition driver for MySQL Easy Install on "Macintosh HD" **⊖** Introduction Click Install to perform a basic installation of this software package on the volume "Macintosh HD." ⊖ License Select Destination Installation Type Install Finish Up Customize Go Back Install 12

Select the components to be installed, or click Easy Install to return to the default:

C'



The Software must be installed as a user with Administrative privileges on the machine. When prompted, provide a relevant username and password:

Figure 7.11. ee	-mys-10.png	
		Authenticate
	Installer re	equires that you type your password.
	Name:	OpenLink
	Password:	
Details		
?		Cancel OK

Installation will proceed.

Figure 7.12. ee-mys-11.png

	Installing OpenLink Express Edition driver for MySQL
 Introduction Read Me License Select Destination Installation Type Install Finish Up 	Installing iODBC Frameworks (runtime)
,	Go Back Continu

During installation, you will be prompted to select a license file for the driver. If such a license file already exists on the machine, then select the 'use existing file' option.

Figure 7.13. ee-mys-15.png

	ic-disabled	•	Q search	
Notwork	Name	Date Modifie	d	
INELWOIK	🗓 ee_mys_lt.lic	7/17/06		
Macintosh HD	ee_pgr_lt.lic	7/17/06		
	mys3_lt.lic	5/18/06		
OpenLink 🔺	mys4_lt.lic	5/18/06		
Onen link t	mys5_lt.lic	5/18/06		
Desktop root Applications Documents				

If you accidentally clicked this option, you can cancel out of the selection dialog. As the following alert will explain, you can manually apply the license file at any point in the future:

Figure 7.14. ee-mys-16.png



A trial or permanent license may be obtained by selecting the *Try and Buy* option which loads our online try and buy web page:

Figure 7.15. ee-mys-12.png

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n'	The installation requires a license file (ee mus It lic) for
1	operation.
-	Press the 'Try or Buy' button to request a license using your
	browser. You will receive a license as an email attachement
	Press the 'Use existing License' button if you have already
	recived a license.
	On the next dialog, press the 'Choose' button to select the
	license file for use or 'Cancel' to continue without one.
	(Try or Buy License) Use existing Licen

A permanent license may be obtained by clicking on the 'Shop' link to visit our online store, or you may obtain a trial license by registering with and logging in to the OpenLink Web site:

Figure 7.16. ee-mys-13.png

$\Theta \Theta \Theta$	OpenLink Product Download Wizard
<₽• 📫	🕞 🥁 🕐 🚯 http://download.openlinksw.com/download/login.vs 🔻 🛇 🕞
socnet ▼ XDisable ▼	notpron V OKC V daily pers V daily OPL OpenLink Dump Scripts sc V lj V ljfriends V argh View Sc Cookies V CSS CSS Comments Minages OpenLink Miscellaneous V Outline Resize Of Cools V CV View Sc OpenLink Product Download
	OPENLINK SOFTWARE Virtuoso Home
	Universal Data Access Drivers Download You have selected Single-Tier (Express Edition) ODBC Driver for MySQL (Release 6.0) for use on Mac OS X 10.4.x (32 (PowerPC)
	Try Single-Tier (Express Edition) - Please Login To proceed you must login. You will receive a temporary license so that you can evaluate this product. Email: Password: Sign-In Porgotton your password? Don't have an account? Register
© 2	Go back to the start to <u>download more software.</u> 005 OpenLink Software
S Find:	Q Find Next ◎ Find Previous □ Highlight all □ Match case
Done	

Click on the 'Download License' button to immediately obtain an evaluation license file; it will be saved to your Browser's download folder (which typically defaults to your desktop). A message will also be sent to your email address with a link to your OpenLink Data Space (ODS) Briefcase, where all non-expired trial and full license files will be stored for download at your convenience.

Figure 7.17. ee-mys-14.png

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Close the browser, and proceed as if you had selected the option to *use existing file*. Select the license file to be used for the installation:

Figure 7.18. ee-mys-15.png

000	Choose your lice	ense file		
You should have received a	license file from OpenLink as an atta	chement to an email. Ma	ke sure this attachement	is saved
	Dic-disabled	\$	Q search	
Network Network Macintosh HD OpenLink OpenLink DopenLink Network Net	Name ee_mys_lt.lic mys3_lt.lic mys4_lt.lic mys5_lt.lic pgr7_lt.lic	▲ Date Modified 7/17/06 5/18/06 5/18/06 5/18/06 5/18/06		
New Folder			Cancel Ch	oose

Installation is now complete, and you can exit the Installer and proceed to configure a DSN:

Figure 7.19. ee-mys-17.png Install OpenLink Express Edition driver for MySQL Introduction Read Me License Select Destination Installation Type Install Finish Up Co Back Close

8.1.2 Configuration

To configure an ODBC DSN, double-click the *OpenLink ODBC Administrator.app* located in /Applications/Utilities/, or the *iODBC Administrator.app* located in /Applications/iODBC/:

Figure 7.20. ee-mys-18.png



Figure 7.21. ee-mys-19.png



Click on the Add button, to create a new DSN (Data Source Name):

Add
Add
nuu
move
afigur
ingui
Tost
rest

Choose the *OpenLink MySQL Driver (Express Edition) v6.0* from the list of available drivers. Choose the *OpenLink MySQL Driver (Express Edition)(Unicode) v6.0 if and only if* you are working with multi-byte character sets, as

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unnecessary translations can significantly ODBC performance:

Figure 7.23. ee-mys-21.png

Choose an ODBC Driver

	Name OpenLink Informity Driver (Express Edition) v6.0	
	OpenLink Informix Driver (Express Edition) v6.0 OpenLink Informix Driver (Express Edition)(Unicode) v6.0 OpenLink Ingres Driver (Express Edition) v6.0 OpenLink Ingres Driver (Express Edition)(Unicode) v6.0 OpenLink JDBC Lite Driver (Unicode) v6.0 OpenLink MySQL 3.x Lite Driver v6.0 OpenLink MySQL 3.x Lite Driver v6.0	
No A	OpenLink MySQL Driver (Express Edition) v6.0	ų
N OF	OpenLink MySQL Driver (Express Edition)(Unicode) v6.0	

In the Data Source tab, enter a suitable name and optional description for the DSN being created:

Figure 7.24. e	e-mys-22.png
----------------	--------------

Data Source	Connection	Options	Preferences	Test
What nam	e do you want	to use to re	fer to this data	source ?
DSN				
How do yo	ou want to desc	cribe this da	ta source ?	
Descript	tion			
5				
c				

The Connection tab requests the minimum parameters required to make a connection to the target database:

- Host the name of the server on which the target MySQL instance is running
- Port the port at which the target MySQL instance is listening (default 3306)
- Database the name of a valid database on the target MySQL instance
- Username a valid MySQL username

Figure 7.25. ee-mys-23.png

Data Source	Connection	Options	Preferences	Test
Which se	erver do you war	nt connect to	07	
	Host	localhost		
	Port	3306		
	Database	test		
2				
	User name			
			(Advanced

If desired, click the *Advanced* button to set additional parameters relevant to the MySQL connection. None of these need be changed for a basic connection:

Table 7.1.	
SocketFactoryClassName	The name of the class that the driver should use for creating socket connections to the server. This class must implement the interface 'com.mysql.jdbc.SocketFactory' and have public no-args constructor.
ConnectTimeout	Timeout for socket connect (in milliseconds), with 0 being no timeout.
SocketTimeout	Timeout on network socket operations (0, the default means no timeout).
IsInteractiveClient	Set the CLIENT_INTERACTIVE flag, which tells MySQL to timeout connections based on INTERACTIVE_TIMEOUT instead of WAIT_TIMEOUT
UseCompression	Use zlib compression when communicating with the server (true/false)?
AllowMultiQueries	Allow the use of ';' to delimit multiple queries during one statement (true/false).
UseSSL	Use SSL when communicating with the server (true/false); defaults to 'false'.
RequireSSL	Require SSL connection if useSSL=true?
AllowUrlInLocalInfile	Should the driver allow URLs in 'LOAD DATA LOCAL INFILE' statements?
Paranoid	Take measures to prevent exposure sensitive information in error messages and clear data structures holding sensitive data when possible?
MetadataCacheSize	The number of queries to cacheResultSetMetadata for if cacheResultSetMetaData is set to 'true'
BlobSendChunkSize	Chunk to use when sending BLOB/CLOBs via ServerPreparedStatements
CacheServerConfiguration	Should the driver cache the results of 'SHOW VARIABLES' and 'SHOW COLLATION' on a per-URL basis?
ElideSetAutoCommits	If using MySQL-4.1 or newer, should the driver only issue 'set autocommit=n' queries when the server's state doesn't match the requested state by Connection.setAutoCommit(boolean)?
UseReadAheadInput	Use newer, optimized non-blocking, buffered input stream when reading from the server?
UseUnicode	Should the driver use Unicode character encodings when handling strings? Should only be used when the driver can't determine the character set mapping, or you are trying to 'force' the driver to use a character set that MySQL either doesn't natively support (such as UTF-8), true/false.
CharacterEncoding	If 'useUnicode' is set to true, what character encoding should the driver use when dealing with strings? (defaults is to 'autodetect')
CharacterSetResults	Character set to tell the server to return results as.
ConnectionCollation	If set, tells the server to use this collation via 'set collation_connection'
SessionVariables

A comma-separated list of name/value pairs to be sent as SET SESSION ... to the server when the driver connects.

Figure 7.26. ee-mys-24.png

Use	Attribute	Value
	SocketFactoryClassName	com.mysql.jdbc.StandardSocketFact
	ConnectTimeout	0
	SocketTimeout	0
	IsInteractiveClient	0
	UseCompression	false
	AllowMultiQueries	false
+ C)4 +
		Cancel Ok

As suggested above, the parameters of the Options and Preferences tabs need not be changed for a basic connection:

6	ata Source	Connection	Options	Preferences	Test
3	Row bu	ffer size 60)		Hide login dialog Read only connectio
	Jet opt	ions			
2	Dro	p catalog from support of quo	meta calls ted identifie	Drop scher r SQL statis	ema from meta calls stic disabled
	No :	support of sear	ch string es	cape	
7	Patch o	f NULL size of !	SQL_CHAR	0	

- *Row Buffer Size* This attribute specifies the number of records to be transported over the network in a single network hop. Values can range from 1 to 99.
- *Hide Login Dialog* Suppress the ODBC "Username" and "Password" login dialog box when interacting with your ODBC DSN from within an ODBC compliant application.
- *Read Only connection* Specify whether the connection is to be "Read-only". Make sure the checkbox is unchecked to request a "Read/Write" connection.
- Drop Catalog from Meta calls Enable this option to have the catalog name not appear for tables, views and procedures when requesting database meta-data.
- Drop Schema from Meta calls Enable this option to have the schema-name not appear for tables, views and procedures when requesting database meta-data.
- *SQLStatistics disabled* Check this box to have SQLStatistics() return an empty resultset. Use this if the underlying database does not support retrieving statistics about a table (e.g. what indexes there are on it).

- *No support of quoted identifier* If it is set, the call SQLGetInfo for 'SQL_IDENTIFIER_QUOTE_CHAR' will return the space (" "). It can be used if DBMS doesn't support quoted SQL such as select * from "account"
- *No support of search string escape* If it is set, the call SQLGetInfo for 'SQL_LIKE_ESCAPE_CLAUSE' will return the space (" "). It can be used if DBMS doesn't support SQL escape patterns
- *Patch of NULL size of SQL_CHAR* If set this option overrides the size of SQL_CHAR column type returned by the database with the value set in the text box (in bytes). With the default value of 0 the driver uses the size returned by the database.
- *SQL_DBMS Name* Manually override the SQLGetInfo(SQL_DBMS_NAME) response returned by the driver. This is know to be required for products like Microsoft InfoPath for which the return the value should be "SQL Server".

	ata Source	Connect	tion	Options	Preferences	Test
L.	Initializa	tion SQL	Г			
	Cursor s	ensitivity	L	ow	•	
	Max row	vs override	0			
	Disa Disa Disa Defe	ble rowset s r fetching o iple Active S	size li of lon Stater	mit g data nents Emuli	ation	

Initialization SQL - Lets you specify a file containing SQL statements that will be run against the database upon connection, automatically.

- *Cursor Sensitivity* Enables or disables the row version cache used with dynamic cursors. When dynamic cursor sensitivity is set high, the Cursor Library calculates checksums for each row in the current rowset and compares these with the checksums (if any) already stored in the row version cache for the same rows when fetched previously. If the checksums differ for a row, the row has been updated since it was last fetched and the row status flag is set to SQL_ROW_UPDATED. The row version cache is then updated with the latest checksums for the rowset. From the user's point of view, the only visible difference between the two sensitivity settings is that a row status flag can never be set to SQL_ROW_UPDATED when the cursor sensitivity is low. (The row status is instead displayed as SQL_ROW_SUCCESS.) In all other respects, performance aside, the two settings are the same deleted rows don't appear in the rowset if their keys fall within the span of the rowset. If your application does not need to detect the row status SQL_ROW_UPDATED, you should leave the 'High Cursor Sensitivity' checkbox unchecked, as performance is improved. The calculation and comparison of checksums for each row fetched carries an overhead. If this option is enabled, the table oplrvc must have been created beforehand using the appropriate script for the target database.
- *MaxRows Override* Allows you to define a limit on the maximum number of rows to returned from a query. The default value of 0 means no limit.
- *Disable AutoCommit* Change the default commit behaviour of the OpenLink Express Edition Driver. The default mode is AutoCommit mode (box unchecked).
- *Disable Rowset Size Limit* Disable the limitation enforced by the cursor library. The limitation is enforced by default to prevent the Driver claiming all available memory in the event that a resultset is generated from an erroneous query is very large. The limit is normally never reached.
- *Defer fetching of long data* Defer fetching of LONG (BINARY, BLOB etc.) data unless explicitly requested in query. This provides significant performance increase when fields in query does not include LONG data fields.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.

Click on the Test Data Source button to make a connection to the database to verify connectivity:

	Data Source	Connection	Options	Preferences	Test	
new ODBC	Datasource will	be created with	the followin	ng configuratio	n:	
Data Sour	rce Name: mul60e	emy3ansi				
UserName	e: mysql					
URLString	: {ServerName=o	plussol3.usnet.	private;Port	Number=3306	DatabaseNa	me=tes
FetchBuff	erSize: 60					
NoLoginB	ox: No					
MaxRows	: 0					
NoAutoCo	ommit: No					
NoRowset	tSizeLimit: No					
•))
		Test Dat	Source			
		Test Dat	a source			

Enter a valid username and password for the target database:

Identity	Connection	Options	Preferences	Abou
Usernar	DSN :	(File DSN)	
Passwor	d 💽	••		

A successful connection to the database has been made:



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8.2 OpenLink ODBC Driver for MySQL (Express Edition) for Windows

8.2.1 Installation

The OpenLink ODBCDriver for MySQL(Express Edition) is distributed as a Windows MSI installer. Simply double click on the installer 'ntl6emys.msi' to commence the installation:

Figure 7.32. EEWinmysinst01.png



Installer Welcome Dialog for the OpenLink ODBCDriver for MySQL(Express Edition):

Figure 7.33. EEWinmysinst02.png



Please read the software license agreement and accept before continuing your installation:

Figure 7.34. EEWinmysinst03.png

OpenLink ODBC Driver (Express Edition) User Guide

🤯 OpenLink MySQL ODBC Driver (Express Edition) Setup
License Agreement You must agree with the license agreement below to proceed.
OPENLINK SOFTWARE LICENSE AGREEMENT
ТҮРЕ
License for OpenLink Universal Data Access Driver Suite.
QUANTITY
One or more copies of this product limited to 2 concurrent users, and 4 concurrent connections, maintained by the server based OpenLink License Manager. Additional license options shall be reflected in your registration key.
USE
You (an entity or a person) can make use of the software identified above (the "Software") in the quantity stated above if you meet the following conditions:
OnenLink Server Components (OnenLink Bequest Broker & OnenLink Database 🛛 🐸
I accept the license agreement
<pre></pre>

Before installation you will be prompted for a license file. If a license file already exists on the machine, then select the 'use exisiting file' option. A trial (try) or full (buy) license can be obtained by selecting the 'try and buy' option, which loads OpenLink's online try and buy web page:

Elan	~ 7 24	T DEWA	mmaria	at01 mma
การนา	e 7.5.	\mathcal{I} . EE WI	mnvsm	SI04.DH2

😼 OpenLink MySQL ODBC Driver (Express Edition) Setup
Product License Select the folder containing the product license.
This product requires a product license for use, which the installer can automatically place in the correct location for you. If you already have a 'ee_mys_lt.lic' license file click the 'Browse' button and locate the folder it is in.
C:\ Browse
Alternatively, click the 'Try & Buy' button to use your Web browser to request a license, if you don't have one yet.
I don't want to install a license file right now.
<pre></pre>

To obtain the trial license, you must be a registered user on the OpenLinkWeb site and login with your username (e-mail address) and password. Click on the 'Shop' link to visit OpenLink's online shop cart to purchase a full license, if required:

Click on the 'download license' button to immediately obtain the license file and save it to your desktop. Alternatively, an auto-generated e-mail will be sent to your registered e-mail address. This email will contain a link to your OpenLinkData Space (ODS). The OpenLinkData Space (ODS) contains copies of all trial and full license files in a Briefcase for

download at a later date.

Figure 7.36. EEWinmysinst05.png							
OpenLink Product Download Wizard - Microsoft Internet E	xplorer						
File Edit View Favorites Tools Help							
🚱 Back 🝷 🜍 🝷 📓 🚮 🔎 Search 🤺 Favorites	🜒 Media 🕢 🔗 - 🌺 🚍 🗔						
Address 🙋 http://download.openlinksw.com/download/login.vsp?release=6.0&lic=ee_mys_lt&wstype=W&os=i686-generic-w 💙 🄗 Go 🛛 Links 🎽							
OPENLINK software	OpenLink Home UDA Home Virtuoso Hom	e					
Universal Data Access Drivers (ODBC, JDBC, ADO) Download You have selected Single-Tier (Express Edition) ODBC Driver for MySQL (Release 6.0) for use on Windows 98/NT/2000/XP/2003 (32 Bit) (×86)							
Try Single-Tier (Express Edition)	Buy Single-Tier (Express Edition)						
Welcome back Miss Netrista Khatam Check my Details Next > Change Login 15	You can proceed directly to online sales w this product to purchase a full license. Shop						
Go back to the start to <u>download more software.</u>							
S		>					

Select the license file to be used for the installation:

Figure 7.37. EEWinmysinst06.png

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🔂 OpenLink	MySQL ODB	C Driver (Express Edition) Setup	
Look in: DB2 DELL Documents IFMXDATA IngresII ISM NSR	Local D	isk (C:) OpenEdge oracle Program Files Progress tmp WINDOWS	
Eolder name:	C		OK Cancel

Choose to perform a custom, typical or complete installation of the driver:

BODENLINK MySQL (Select Installation Select the desired i	DDBC Driver (Express Edition) Setup Type nstallation type.	
12	<u>Typical</u> Installs the most common program features. This option is recommended for most users.	
R KK	Complete All program features will be installed. This option is recommend for the best performance.	led
	Custom Choose which application features you want installed and whe they will be installed. This option is recommended for advance users.	are d
	< Back Next > (Cancel

Figure 7.38. EEWinmysinst07.png

Select the features to be installed:

Figure 7.39. EEWinmysinst08.png

🔀 OpenLink MySQL ODBC Driver (Express Edition) Setup	
Select Features Please select which features you would like to install.	
Description:	This feature requires 0KB on your hard drive. It has 2 of 2 subfeatures selected. The subfeatures require 1448KB on your hard drive.
Disk Cost Reset < Back Nex	Cancel

Click the install button to begin the installation of components:

Figure 7.40. EEWinmysinst09.png

🔂 OpenLink MySQL ODBC Driver (Express Edition) Setup	
Ready to Install The installer is ready to begin the Custom installation.	0
Click Install to begin the installation. If you want to review or change any of your in settings, click Back. Click Cancel to exit the installer.	stallation
< Back Install	Cancel

Installation in progress:

Figure 7.41. EEWinmysinst10.png



The Software installation is complete and ready for use:

Figure 7.42. EEWinmysinst11	l.png
🛃 OpenLink MySQL ODBC	Driver (Express Edition) Setup
OPENLINK	Completing the installer for OpenLink MySQL ODBC Driver (Express Edition)
UDA	Click the Finish button to exit this installation.
	< Back Finish Cancel

8.2.2 Configuration

To configure an ODBCDSN, run the ODBCAdministrator located in the Administrative Tools section of the Control Panel:

Figure 7.43. EEWinmysconf01.png



Click on the Drivers tab to confirm the OpenLink MySQL ODBCDriver [Express Edition][6.0] has been successfully installed:

Figure 7.44. EEWinmysconf02.png

💞 ODBC Data Source Administrator	(? 🗙
User DSN System DSN File DSN Drivers Tracing Connection ODBC Drivers that are installed on your system:	Pooling Abo	out
Name OpenLink Lite for SQL Server [6.0] OpenLink MySQL ODBC Driver (Express Edition) (Unicode) [6.0] OpenLink MySQL ODBC Driver (Express Edition) [6.0] OpenLink Oracle ODBC Driver (Express Edition) [0.0] OpenLink Oracle ODBC Driver (Express Edition) [6.0] OpenLink Oracle ODBC Driver (Express Edition) [6.0] OpenLink Postgres ODBC Driver (Express Edition) [0.0] OpenLink Postgres ODBC Driver (Express Edition) [6.0] OpenLink SQLServer ODBC Driver (Express Edition) [0.0] OpenLink SQLServer ODBC Driver (Express Edition) [0.0]	Version 1.40.00.00 1.00.00.00 1.00.00.00 1.00.00.00 1.00.00.00 1.00.00.00 1.00.00.00 1.00.00.00 1.00.00.00 1.00.00.00	
	>	Ë
An ODBC driver allows ODBC-enabled programs to get inf ODBC data sources. To install new drivers, use the driver program.	ormation from 's setup	
OK Cancel Apply	Не	lp

From either the User or System DSN tabs, click on the Add button and select the OpenLink MySQL ODBCDriver [Express Edition][6.0] from the list :

Figure 7.45. EEWinmysconf03.png

Create New Data Source		×
	Select a driver for which you want to set up a data source. Name Image: Compendition of the second sec	

In the Data Source tab, select a suitable DSN name and optional description for the Data Source to be created:

igure 7.46. EEWinmysco OpenLink Single Tier I	onf04.png ISN Configuration
	This wizard will help you create an ODBC data source that you can use to connect to a remote Database. What name do you want to use to refer to the data source? Name: MySQL Express Demo How do you want to describe the data source? Description:
	< Back Next > Cancel

The Connection tab requests the minimum parameters required to make a connection to the target database:

2 Million	Which server do yo	u want to connect to?
Att	Host	oplussol3
A States	Port	3306
Jacob Al	Database	mysql
		= 19 CULEU
XX	Connect now to Login ID	verify that all settings are correct.
	Connect now to Login ID Password:	verify that all settings are correct.

- *Host* : This is the fully qualified hostname or IP address of the machine hosting the DBMS you wish to access, e.g., dbms-server.example.com, or 192.168.155.123. Any hostname which will be resolved by your local DNS is acceptable.
- Port : This is the port on which MySQL is listening
- Database : This is the name of the MySQL database to which you want to connect

Figure 7.47. EEWinmysconf05.png

- Login ID : This is a valid user name for the MySQL database
- Password : This is a valid password for the MySQL database

Click next to verify that all settings are correct or uncheck the check box to delay testing to a later stage.

The advanced button displays additional, optional parameters that can be configured:

Figure 7.48. EEWinmysconf06.png

Use	Attribute	Value	~
	SocketFactoryClassName	com.mysql.jdbc.StandardSocketFactory	
	ConnectTimeout	0	
	SocketTimeout	0	-
	IsInteractiveClient	0	
	UseCompression	false	
	AllowMultiQueries	false	
	UseSSL	false	
	RequireSSL	false	~
<			J
	. 1		

Table 7.2.

SocketFactoryClassName	The name of the class that the driver should use for creating socket connections to the server. This class must implement the interface 'com.mysl.jdbc.SocketFactory' and have no-args constructor.
ConnectTimeout	Timeout for socket connect (in milliseconds), with 0 being no timeout.
SocketTimeout	Timeout on network socket operations (0, the default means no timeout).
IsInteractiveClient	Set the CLIENT_INTERACTIVE flag, which tells MySQL to timeout connections based on INTERACTIVE_TIMEOUT instead of WAIT_TIMEOUT.
UseCompression	Use zlib compression when communicating with the server (true/false).
AllowMultiQueries	Allow the use of ';' to delimit multiple queries during one statement (true/false).
UseSSL	Use SSL when communicating with the server (true/false), defaults to 'false.'
RequireSSL	Require SSL connection if useSSL=true.
AllowURLInLocalInfile	Should the driver allow URLs in 'LOAD DATA LOCAL INFILE' statements?
Paranoid	Take measures to prevent exposure sensitive information in error messages and clear data structures holding sensitive data when possible?
MetadataCacheSize	The number of queries to cacheResultSetMetadata for if cacheResultSetMetaData is set to 'true.'
BlobSendChunkSize	Chunk to use when sending BLOB/CLOBs via ServerPreparedStatements.
CacheServerConfiguration	Should the driver cache the results of 'SHOW VARIABLES' and 'SHOW COLLATION' on a pre-URL basis?
ElideSetAutoCommits	If using MySQL 4.1 or newer, should the driver only issue 'set autocommit=n' queries when the server's state doesn't match the requested state by Connection.setAutoCommit (boolean)?
UseReadAheadInput	Use newer, optimized non-blocking, buffered input stream when reading from the server?
UseUnicode	Should the driver use Unicode character encodings when handling strings? Should only be used when the driver can't determine the character set mapping or you are trying to 'force'

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	the driver to use a character set that MySQL either doesn't natively support (such as UTF-8), true/false.
CharacterEncoding	If 'useUnicode' is set to true, what character encoding should the driver use when dealing with strings? (defaults to 'autodetect')
CharacterSetResults	Character set to tell the server to return result as.
ConnectionCollation	If set, tells the server to use this collation via 'set collation_connection.'
SessionVariables	A comma-separated list of name/value pairs to be sent as SET SESSION to the server when the driver connects.

As indicated above, the parameters on the options and preferences tabs are not required for a basic connection.

Figure 7.49. EEWinmyscon	f17.png
OpenLink Single Tier DS	N Configuration
	Additional parameters: Drop Catalog name from DatabaseMetaData calls Drop Schema name from DatabaseMetaData calls Return an empty ResultSet for SQLStatistics Disable support of quoted identifier Disable support of search pattern escape Patch null size of SQLChar on: 4096
	< Back Next > Cancel

- *Drop Catalog name from DatabaseMetaData calls* Enable this option to have the catalog name not appear for tables, views, and procedures when requesting database meta-data.
- *Drop Schema name from DatabaseMetaData calls* Enable this option to have the schema-name not appear for tables, views, and procedures when requesting database meta-data.
- *Return an empty ResultSet for SQLStatistics* Check this box to have SQLStatistics() return an empty resultset. Use this if the underlying database does not support retrieving statistics about a table, e.g., what indexes there are on it.
- *Disable support of quoted identifier* If it is set, the call SQLGetInfo for 'SQL_IDENTIFIER_QUOTE_CHAR' will return the space (" "). It can be used if the DBMS does not support quoted SQL, e.g., select * from "account."
- *Disable support of search pattern escape* If it is set, the call SQLGetInfo for 'SQL_LIKE_ESCAPE_CLAUSE' will return the space (" "). It can be used if the DBMS does not support SQL escape patterns.
- *Patch of NULL size of SQL_CHAR* If set, this option overrides the size of SQL_CHAR column type returned by the database with the value set in the text box (in bytes). With the default value of 0, the driver uses the size returned by the database.

Figure 7.50. EEWinmysconf08.png

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OpenLink Single Tier D	SN Configuration
OPENLINK	Additional connect parameters: Read-only connection Defer fetching of long data Disable interactive login Row buffer size: 60 Max rows override: 0 Initial SQL: Dynamic cursor sensitivity: Low
SOFTWARE	Enable logging to the log file:

- *Disable Interactive Login* Suppress the ODBC "Username" and "Password" login dialog box when interacting with your ODBC DSN from within an ODBC compliant application.
- *Row Buffer Size* This attribute specifies the number of records to be transported over the network in a single network hop. Values can range from 1 to 99.
- *Max rows override* Allows you to define a limit on the maximum number of rows to be returned from a query. The default value of 0 means no limit.
- *Initial SQL* Lets you specify a file containing SQL statements that will be automatically run against the database upon connection.
- *Dynamic Cursor Sensitivity* Enables or disables the row version cache used with dynamic cursors. When dynamic cursor sensitivity is set high, the Cursor Library calculates checksums for each row in the current rowset and compares these with the checksums (if any) already stored in the row version cache for the same rows when fetched previously. If the checksums differ for a row, the row has been updated since it was last fetched, and the row status flag is set to SQL_ROW_UPDATED. The row version cache is then updated with the latest checksums for the rowset. From the user's point of view, the only visible difference between the two sensitivity settings is that a row status flag can never be set to SQL_ROW_UPDATED, when the cursor sensitivity is low. (The row status is instead displayed as SQL_ROW_SUCCESS.) In all other respects, performance aside, the two settings are the same deleted rows do not appear in the rowset if their keys fall within the span of the rowset. If your application does not need to detect the row status SQL_ROW_UPDATED, you should leave the 'High Cursor Sensitivity' checkbox unchecked, as performance is improved. The calculation and comparison of checksums for each row fetched carries an overhead. If this option is enabled, the table oplrvc must have been created beforehand using the appropriate OpenLink script for the target database.
- *Enable logging to the log file:* Specifies the full path to a text file. If the associated checkbox is checked, and a file is passed, the driver will log auto-generate a clientside ODBC trace.

Figure 7.51. EEWinmysconf09.png

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OpenLink ODBC Driver (Express Edition) User Guide

OpenLink Single Tier D	SN Configuration	×
	Additional connect compatibility parameters: Enable Microsoft Jet engine options Disable Autocommit Disable rowset size limit Multiple Active Statements Emulation SQL_DBMS_NAME:	
	< Back Next > Cancel	

- *Disable AutoCommit* Change the default commit behaviour of the OpenLink Driver. The default mode is AutoCommit (box unchecked).
- *Disable Rowset Size Limit* Disable the limitation enforced by the cursor library. The limitation is enforced by default to prevent the Driver claiming all available memory in the event that a resultset generated from an erroneous query is very large. The limit is normally never reached.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.
- *SQL_DBMS Name* Manually override the SQLGetInfo(SQL_DBMS_NAME) response returned by the driver. This is required for products like Microsoft InfoPath for which the return value must be "SQL Server".

Click on the Test Data Sourcebutton to verify that a successful connection can be made to the database.

Figure 7.52. EEWinmysconf10.png

OpenLink Single Tier D	OSN Configuration	×
EAR	following configuration:	
	OpenLink MySQL Driver (Express Edition) Version: 1.0 File: C:\Program Files\OpenLink Software\UDA\bin\ntl5eemys.dll Running connectivity tests	~
MA.	Connection established Verifying option settings Actual database is (MySQL) Disconnecting from server	
	Test Data Source Test XA Connection	
	< Back Finish Cance	el

9 Chapter 8. OpenLink ODBC Driver for Oracle (Express Editon)

Table of Contents

- OpenLink ODBC Driver for Oracle (Express Editon) for Mac OS X
 - ♦ Installation Guide
 - ♦ Configuration
- OpenLink ODBC Driver for Oracle (Express Editon) for Windows
 - ♦ Installation
 - ♦ Configuration

9.1 OpenLink ODBC Driver for Oracle (Express Editon) for Mac OS X

9.1.1 Installation Guide

The OpenLink ODBC Driver for Oracle (Express Edition is a distributed as a Disk Image (DMG) file. Simply double click on the disk image 'mul6eora.dmg' to extract the installer mpkg file:



Double-click on the mpkg file to run the installer and following the on screen instriuction as indicated below to complete the installation:

Figure 8.2. OraclePackage.png



Installer Welcome Dialog for the OpenLink ODBC Driver for Oracle (Express Edition):

Figure 8.3. OracleInstall2.png



Please review the readme file for installation requirements and known issues:

Figure 8.4. OracleInstall3.png

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	Important Information	
Introduction	Release 6.0, April 2006	
🖯 Read Me	This installation program will install the following Universal Binary	
License	Format components.	
Select Destination	OpenLink Express Edition for Oracle OpenLink iODBC Driver Manager	
Installation Type	OpenLink iOBC Driver Manager OpenLink iOBC Administrator	
Install	OpenLink iODBC Sample Program	
Finish Up		
	Minimum System Requirements	
	• Mac OS X 10.3.9 or above	
	Known ODBC-Compliant Application Issues	
	REALbasic variants through Version 4.0 were not fully ODBC-	

Please read the software license agreement before continuing your installation:



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Figure 8.6. OracleInstall5.png

Select destination volume for driver installation:

Figure 8.7. OracleInstall6.png $\Theta \Theta \Theta$ 🥪 Install OpenLink Express Edition driver for Oracle Select a Destination Select a destination volume to install the OpenLink Express Edition driver for Oracle software. **⊖** Introduction ⊖ Read Me ⊖ License Select Destination Installation Type Macintosh HD 74.4GB (59.9GB Free) Install Finish Up Installing this software requires 7.1MB of space. You have chosen to install this software on the volume "Macintosh HD." Go Back Continue C

Choose to perform a custom or default installation of the driver:

Figure 8.8. OracleInstall7.png

👹 😁 🕤 💊 Insta	all OpenLink Express Edition driver for Oracle
⊖ Introduction ⊖ Read Me ⊖ License ⊖ Select Destination	Click Upgrade to perform a basic installation of this software package on the volume "Macintosh HD."
 Installation Type Install Finish Up 	
ے د	Customize Go Back Upgrade

If you chose the custom option select which of the components below are to be installed: The Software must be installed as a user with Administrative privileges on the machine:

Figure 8.9. OracleInstall8.png

		Authenticate
	Installer re	equires that you type your password.
	Name:	OpenLink
	Password:	
▶ Details		
?		Cancel OK

After the driver has been installed you will be prompted for a license file. If a license file already exists on the machine then select the 'use exisiting file' option. A trial (try) or full (buy) license can be obtain by selecting the 'try and buy' option which loads our online try and buy web page:

Figure 8.10. OracleInstall10.png

Y	The installation requires a license file (ee_ora_lt.lic) for operation.
	Press the 'Try or Buy' button to request a license using your browser. You will receive a license as an email attachement.
	Press the 'Use existing License' button if you have already recived a license.
	On the next dialog, press the 'Choose' button to select the license file for use or 'Cancel' to continue without one.

To obtain the trial license you must be a registered user on the OpenLink Web site and login with the username (e-mail address) and password for that user. Click on the 'Shop' link to visit our online shop cart to purchases a full license if required: Click on the 'download license' button to obtain the license file immediately and save to your desktop. Alternatively an auto e-mail will be sent to the registered users e-mail address with a link to their OpenLink Data Space (ODS) where all trial and full license files will be stored in the Briefcase for download at a later date.

Figure 8.11. OracleInstall12.png

OpenLink ODBC Driver (Express Edition) User Guide



Select the license file to be used for the installation:

Figure 8.12. OracleInstall14.png

	(73-		
	Desktop	•	Q search
Network	bench_user.log	n 🗾 DbVisualizer	0
Network	bench.log	🦳 ee_ora_lt.lic	
Macintosh HD	📁 Desktop 🛛 🕨	📄 ee_sql_lt.lic	
	📁 Documents 🛛 🕨	mul6eora.dmg	
OpenLink	🧊 install s captures 🕨	mul6esql.dmg	
OpenLink	🧊 installation images 🕨	📄 opltrace.log	
	📁 Library 🛛 🕨	🐵 OSXvnc	
Deskton	📁 License 🛛 🕨	🖹 Picture 1	
Desktop	📁 Log Files 🛛 🕨	Picture 2	
root	📁 Magazines 🛛 🕨	🖹 Picture 3	Name ee_ora_lt.l
	📁 Movies 🕨 🕨	🍸 🖹 Picture 4	Size 4 KR
Applications	i mul6esql.dmg	🔻 🖹 Picture 5	 Kind Document
Documents	🗉 📁 Music 🛛 🕨	🗉 🖹 Picture 6	II Created Today at

Installation is complete:



9.1.2 Configuration

To configure an ODBC DSN, run the OpenLink iODBC Administrator located in the /Applications/iODBC folder:

Figure 8.14. ODBCadmin.png

OpenLink ODBC Driver (Express Edition) User Guide



Click on the add button to Choose the ODBC Driver the DSN should be created for:

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Name	Description	Driver	Add
Local Virtuoso	Virtuoso database	OpenLink Virtuc	
Local Virtuoso Demo	Virtuoso Demo database	OpenLink Virtuc	Remove
MySQLdsnMacOSX	-	OpenLink MySQ	Configure
OracleExpress	-	OpenLink Oracle	Configure
PostgreSQLdsnMacOSX	-	OpenLink Postg	
SQLexpress	-	OpenLink SQLSe	Test
SQLserverMacOSX	-	OpenLink SQL S	
SybaseEE	-	OpenLink SQLSe	
VirtUDA	-	OpenLink Virtuc	
())+(
An ODBC System data provider. A machine.	data source stores information System data source is visible to	about how to connect all users and processe	to the indicated s on this

Choose the OpenLink Oracle Driver (Express Edition) v6.0 from the list of available drivers:

Figure 8.15. OracleConfig1.png

Figure 8.16. OracleConfig2.png

Choose an ODBC Driver



In the Data Source tab, select a suitable DSN name and optional description for the Data Source to be created:

Figure 8.17. OracleConfig3.png

Data Source	Connection	Options	Preferences	Test
What nam	e do you want	to use to re	fer to this data	source ?
DSN	Ora	cleExpres	sEditonDSN	
Descrip	tion			
Finish			Go Bac	

The Connection Tab request the minimum paramters required to make a connection to the target database:

Figure 8.18. OracleConfig4.png

(Data Source	Connection	Options	Preferences	Test
0	Which ser	ver do you wan	t connect to	o?	
210		Host	oraclehos	t.example.co	m
15		Port	1521		
-R		SID	ORCL		
LU	2				
		User name			
ODEC	2			(Advanced
Cancel	Finish			Go Bac	Continue

Host: This is the fully qualified hostname, or IP address, of the machine hosting the DBMS you wish to access, e.g., dbms-server.example.com, or 192.168.155.123. Any hostname which will be resolved by your local DNS is acceptable.

Port: The port that the Oracle instance listens on.

SID (Service Name): The Oracle System Identifier that refers to the instance of the Oracle database running on the server.

User Name: The name of a valid Oracle user.

Advanced - Additional optional configuration paramters:

Table 8.1.	
NetworkProtocol	Set the network protocol for the connections. Default is 'tcp'. Can be set to all possible protocols Net8 supports. Only needed for JDBC OCI driver.
MaxStatements	Specifies the value of the maxStatements property. This will be the size of the application cache (which will be used by both implicit and explicit caching).
ImplicitCachingEnabled	Sets the value of the implicitCachingEnabled property, which enables or disables the implicit cache. Note that this is independent of the cache size, set with setMaxStatements().
ExplicitCachingEnabled	Sets the value of the explicitCachingEnabled property, which enables or disables the explicit cache. Note that this is independent of the cache size, set with setMaxStatments().

As indiacted above the paramters of the options and preferences tabs are not required for a basic connection:

Figure 8.19. OracleConfig6.png

	Row buffer size 60
	Jet options
	Drop catalog from meta calls Drop schema from meta call No support of guoted identifier SOL statistic disabled
C	No support of search string escape
5	Patch of NULL size of SQL_CHAR 0

- *Row Buffer Size* This attribute specifies the number of records to be transported over the network in a single network hop. Values can range from 1 to 99.
- *Hide Login Dialog* Suppress the ODBC "Username" and "Password" login dialog box when interacting with your ODBC DSN from within an ODBC compliant application.
- *Read Only connection* Specify whether the connection is to be read-only. Make sure the checkbox is unchecked to request a read-write connection.
- *Drop Catalog from Meta calls* Enable this option to have the catalog name not appear for tables, views and procedures when requesting database meta-data.
- Drop Schema from Meta calls Enable this option to have the schema-name not appear for tables, views and procedures when requesting database metadata.
- *SQLStatistics disabled* Check this box to have SQLStatistics() return an empty resultset. Use this if the underlying database does not support retrieving statistics about a table (e.g. what indexes there are on it).
- *No support of quoted identifier* If it is set, the call SQLGetInfo for 'SQL_IDENTIFIER_QUOTE_CHAR' will return the space (" "). It can be used if DBMS doesn't support quoted SQL such as select * from "account"
- *No support of search string escape* If it is set, the call SQLGetInfo for 'SQL_LIKE_ESCAPE_CLAUSE' will return the space (" "). It can be used if DBMS doesn't support SQL escape patterns
- *Patch of NULL size of SQL_CHAR* If set this option overrides the size of SQL_CHAR column type returned by the database with the value set in the text box (in bytes). With the default value of 0 the driver uses the size returned by the database.
- *SQL_DBMS Name* Manually override the SQLGetInfo(SQL_DBMS_NAME) response returned by the driver. This is know to be required for products like Microsoft InfoPath for which the return the value should be "SQL Server".

Figure 8.20. OracleConfig7.png

	ata Source Connection Options Preferences Test
	Initialization SQL Browse
122	Cursor sensitivity Low
	Max rows override 0
TC	Disable autocommit
	Disable rowset size limit
	Defer fetching of long data
ODE	Multiple Active Statements Emulation

- *Initialization SQL* Lets you specify a file containing SQL statements that will be run against the database upon connection, automatically.
- *Cursor Sensitivity* Enables or disables the row version cache used with dynamic cursors. When dynamic cursor sensitivity is set high, the Cursor Library calculates checksums for each row in the current rowset and compares these with the checksums (if any) already stored in the row version cache for the same rows when fetched previously. If the checksums differ for a row, the row has been updated since it was last fetched and the row status flag is set to SQL_ROW_UPDATED. The row version cache is then updated with the latest checksums for the rowset. From the user's point of view, the only visible difference between the two sensitivity settings is that a row status flag can never be set to SQL_ROW_UPDATED when the cursor sensitivity is low. (The row status is instead displayed as SQL_ROW_SUCCESS.) In all other respects, performance aside, the two settings are the same deleted rows don't appear in the rowset if their keys fall within the span of the rowset. If your application does not need to detect the row status SQL_ROW_UPDATED, you should leave the 'High Cursor Sensitivity' checkbox unchecked, as performance is improved. The calculation and comparison of checksums for each row fetched carries an overhead. If this option is enabled, the table oplrvc must have been created beforehand using the appropriate script for the target database.
- *MaxRows Override* Allows you to define a limit on the maximum number of rows to returned from a query. The default value of 0 means no limit.
- *Disable AutoCommit* Change the default commit behaviour of the OpenLink Lite Driver. The default mode is AutoCommit mode (box unchecked).
- *Disable Rowset Size Limit* Disable the limitation enforced by the cursor library. The limitation is enforced by default to prevent the Driver claiming all available memory in the event that a resultset is generated from an erroneous query is very large. The limit is normally never reached.
- *Defer fetching of long data* Defer fetching of LONG (BINARY, BLOB etc.) data unless explicitly requested in query. This provides significant performance increase when fields in query does not include LONG data fields.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.

Click on the 'Test Data Source' button to make a connection to the database to verify connectivity:

Figure 8.21. OracleConfig8.png

ew ODBC Datasource will be created with the following configuration: hata Source Name: OracleExpressEditonDSN RLString: {ServerName=oraclehost.example.com;PortNumber=1521;ServiceName= etchBufferSize: 60 loLoginBox: No MaxRows: 0 loAutoCommit: No loRowsetSizeLimit: No beferLong: Yes Test Data Source	Data Source	Connection	Options	Preferences	Test
ata Source Name: OracleExpressEditonDSN RLString: {ServerName=oraclehost.example.com;PortNumber=1521;ServiceName= etchBufferSize: 60 loLoginBox: No laxRows: 0 loAutoCommit: No loRowsetSizeLimit: No leferLong: Yes Test Data Source	w ODBC Datasource will b	be created with	the followir	ng configuration	1:
RLString: {ServerName=oraclehost.example.com;PortNumber=1521;ServiceName= etchBufferSize: 60 oLoginBox: No laxRows: 0 oAutoCommit: No oRowsetSizeLimit: No eferLong: Yes Test Data Source	ata Source Name: OracleE	xpressEditonD	5N		
etchBufferSize: 60 oLoginBox: No laxRows: 0 oAutoCommit: No oRowsetSizeLimit: No eferLong: Yes Test Data Source	RLString: {ServerName=or	raclehost.exam	ole.com;Por	tNumber=1521	;ServiceName=0
IoLoginBox: No IaxRows: 0 IoAutoCommit: No IoRowsetSizeLimit: No IeferLong: Yes Test Data Source	etchBufferSize: 60				
MaxRows: 0 IoAutoCommit: No IoRowsetSizeLimit: No PeferLong: Yes Test Data Source	loLoginBox: No				
loAutoCommit: No loRowsetSizeLimit: No PeferLong: Yes Test Data Source	laxRows: 0				
oRowsetSizeLimit: No leferLong: Yes Test Data Source	oAutoCommit: No				
Test Data Source					
Test Data Source	loRowsetSizeLimit: No				
Test Data Source	loRowsetSizeLimit: No)eferLong: Yes				
- Test Bala Bourterin	NoRowsetSizeLimit: No DeferLong: Yes)			
	NoRowsetSizeLimit: No DeferLong: Yes	Test Dat	a Source		
	NoRowsetSizeLimit: No DeferLong: Yes	Test Dat	a Source)	

Enter a vaild username and pasword for the database:

DSN : (File DSN) Username scott	DSN : (File DSN) Username scott Password •••••	Identity Conne	ection Options	Preferences	About
Username scott	Username scott Password •••••	D	SN : (File DS	N)	
	Password	Username	scott		
Password •••••		Password			

A successful connection to the database has been made:

Figure 8.23. OracleSucess.png

9.2 OpenLink ODBC Driver for Oracle (Express Editon) for Windows

9.2.1 Installation

The OpenLink ODBCDriver for Oracle (Express Edition) is distributed as a Windows MSI installer. Simply double click the installer 'ntl6eora.msi' to commence the installation.

Installer Welcome Dialog for the OpenLink ODBCDriver for Oracle(Express Edition):

Figure 8.24. EEWinOraScreen1i.png



Please read the software license agreement and accept before continuing your installation:

Figure 8.25. EEWinOraScreen3i.png

enLink Oracle ODBC Driv	er (Express Edition)Setup
cense Agreement You must agree with the license	agreement below to proceed.
OPENLINK SOFTWA	
TYPE	
License for OpenLink Universa	I Data Access Driver Suite.
QUANTITY	
One or more copies of this proc connections, maintained by the license options shall be reflecte	luct limited to 2 concurrent users, and 4 concurrent server based OpenLink License Manager. Additional d in your registration key.
USE	
You (an entity or a person) can "Software") in the quantity stat	make use of the software identified above (the ed above if you meet the following conditions:
OpenLink Server Components	Monent ink Bequest Broker & Opent ink Database 🛛 💌
and the second se	

Before installation, you will be prompted for a license file. If a license file already exists on the machine, then select the 'use exisiting file' option. A trial (try) or full (buy) license can be obtained by selecting the 'try and buy' option, which loads OpenLink's online try and buy web page:

Figure 8.26. EEWinOraScreen4i.png

roduct L	icense
Select t	he folder containing the product license.
	This product requires a product license for use, which the installer can automatically place in the correct location for you. If you already have a 'ee_ora_lt.lic' license file click the 'Browse' button and locate the folder it is in.
motunt	
C:\	Browse
C:\ Alternat to reque	Browse vely, click the 'Try & Buy' button to use your Web browser st a license, if you don't have one yet. 't want to install a license file right now.

If you are using Nortons Anti-Virus Software, you may encouter this warning message. Choose Allow the Entire Script once option:

Figure 8.27. EEWinOraScreen5i.png

1 1	- Norton A	ntiVirus	×	
Р	Alert :	Malicious script detected		
		Object Windows Script Host Shell Object Activity Run		
		Your computer is halted and needs to do something about this script:		
	File	MsiExec.exe		
		What do you want to do?		
	Action	Allow the entire script once		
		ОК		

To obtain the trial license, you must be a registered user on the OpenLinkWeb site and login with the username (e-mail address) and password for that user. Click on the 'Shop' link to visit Openlink's online shop cart to purchase a full license, if required:

Figure 8.28. EEWinOraScreen6i.png

😻 OpenLink Product Download Wizard - Mozilla Firefox	
<u>Eile E</u> dit <u>V</u> iew <u>G</u> o <u>B</u> ookmarks <u>T</u> ools <u>H</u> elp	
🔶 - 🔿 - 🥰 🚔 🙁 😭 🗋 http://download.openlinksw.com/download/logi	n.vsp?release=6.0&lic=ee_ora_lt&wstype=W&os=
🧭 Employee Center 🧭 Openlink Knowledgeb 🧭 OpenLink Software 🛛 📋 OpenLink P	roduct Do 📋 OpenLink Product Do 📋 W
TWikiUsers < Main < TWiki	viki 📋 OpenLink Product Download Wizard
OPENLINK software	(
Universal Data Access Drivers (ODBC, JDBC, ADO) Downlo You have selected Single-Tier (Express Edition) ODBC Driv	oad ver for Oracle (Release 6.0) for use on
Try Single-Tier (Express Edition)	Buy Single-Tier (Express Edition)
To proceed you must login Email: Password: Sign-In Forgotten your password? Don't have an account? Register155	You can proceed directly to online sal this product to purchase a full license Shop
Go back to the start to <u>download more software.</u> © 2005 OpenLink Software	

Click on the 'download license' button to immediately obtain the license file and save it to your desktop. Alternatively, an auto-generated e-mail will be sent to your registered user's e-mail address with a link to your OpenLinkData Space (ODS), which contains all trial and full licenses in the Briefcase for download at a later date.

Figure 8.29. EEWinOraScreen7i.png



You will want to save the file to disk:

Figure 8.30. EEWinOraScreen8i.png

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Opening ee_ora_lt	lic	×
You have chosen to op ee_ora_lt.lic which is a: IBM DB2 Li from: http://download What should Firefox	oen cense Certificates d.openlinksw.com do with this file?	
O Open with	IBM(R) DB2(R) (default)	
Save to Disk		
Do this <u>a</u> uto	matically for files like this from now on.	

Select the license file to be used for the installation:

<mark>₌ook in: 📄</mark> Deskto	p	✓ Ē
Cases Clutter Contacts for Goldmine Debian Documents DONE DONE Downloads	email response ExpressEditionScreenShots Frank How to Installs Learning New DB versions	New Licenses Other QA Testing temp TEMP LICENSE templates Virtuoso
<		>
older name: C:\Documer	nts and Settings\Emma\Desktop\	ОК

Figure 8.31. EEWinOraScreen9i.png

Make sure that the path to where the license file is located is correct before selecting Next:

Figure 8.32. EEWinOraScreen10i.png

Product L	icense 🏹
Select t	he folder containing the product license.
	This product requires a product license for use, which the installer can automatically place in the correct location for you. If you already have a 'ee_ora_lt.lic' license file click the 'Browse' button and locate the folder it is in.
C:\Doc	uments and Settings\Emma\Desktop\ Browse
Alternat	vely, click the 'Try & Buy' button to use your Web browser
L	st a license, if you don't have one yet.
to reque	
	't want to install a license file right now.

Choose to perform a custom, typical, or complete installation of the driver:

Figure 8.33. EEWinOraScreen11i.png

🙀 OpenLink Oracle	ODBC Driver (Express Edition)Setup
Select Installation Select the desired	Type Installation type.
1 1	<u>T</u>ypical Installs the most common program features. This option is recommended for most users.
No. Compared to the second sec	Complete All program features will be installed. This option is recommended for the best performance.
100 - C	Eustom Choose which application features you want installed and where they will be installed. This option is recommended for advanced users.
	< Back Next > Cancel

With a custom installation, you can decide the directory where the installation will reside:

Figure 8.34. EEWinOraCustom1.png
OpenLink ODBC Driver (Express Edition) User Guide

🖓 OpenLink Oracle ODBC Driver (Express Edition) Setup
Destination Folder Select a folder where the application will be installed.
OpenLink Oracle ODBC Driver (Express Edition) will be installed in the following folder. To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\OpenLink Software\UDA\
Blowse
< Back Next > Cancel

Select the features to be installed:

Figure 8.35. EEWinOraCustom2.png	
🔀 OpenLink Oracle ODBC Driver (Express Edition) Setup	
Select Features Please select which features you would like to install.	Ó
Dracle Samples Description:	This feature requires 0KB on your hard drive. It has 2 of 2 subfeatures selected. The subfeatures require 2504KB on your hard drive.
Disk Cost Reset < Back Nex	t> Cancel

Click the install button to begin installation of the components:

Figure 8.36. EEWinOraCustom3.png

🥵 OpenLink Oracle ODBC Driver (Express Edition) Setup
Ready to Install The installer is ready to begin the Custom installation.
Click Install to begin the installation. If you want to review or change any of your installation settings, click Back. Click Cancel to exit the installer.
< Back Install Cancel

Installation in progress:

Figure 8.37. EEWinOraScreen13i.png

🞲 OpenLink Oracle ODBC Driver (Express Edition) Setup	
Installing OpenLink Oracle ODBC Driver (Express Edition)	
Please wait while the installer installs OpenLink Oracle ODBC Driver (Express Edition). This may take several minutes.	
Status:	
	Cancel

The software installation is complete and ready for use:

Figure 8.38. EEWinOraScreen14i.png



9.2.2 Configuration

To configure an ODBCDSN, run the ODBCAdministrator located in the Administrative Tools section of the Control Panel:

Figure 8.39. EEWinOraScreen1c.png

😼 Administrative Tools			
File Edit View Favorites T	ools Help		4
Search Polders			
Address 🦏 Administrative Tools			💌 🄁 Go
-	🔥 Name 🔺	Size Type	Date Modified
File and Folder Tasks 🙁	Component Services	2 KB Shortcut	06/14/2005 11:16 AM
Pename this file	📃 Computer Management	2 KB Shortcut	02/24/2006 10:59 AM
Maria Maria Gla	Event Viewer	2 KB Shortcut	06/14/2005 11:19 AM
Move this file	Internet Information Services	2 KB Shortcut	09/29/2005 4:32 PM
Copy this file	Local Security Policy	2 KB Shortcut	06/14/2005 11:19 AM
Publish this file to the	Microsoft .NET Framework 1	2 KB Shortcut	06/15/2005 11:57 AM
WeD	Microsoft .NET Framework 1	2 KB Shortcut	06/15/2005 11:57 AM
E-mail this file	Performance	2 KB Shortcut	06/30/2005 4:41 PM
X Delete this file	Data Sources (ODBC)	2 KB Shortcut	07/15/2005 3:52 PM
Other Places 🙁			
Control Panel	E		
A My Documents			
Shared Documents			
A Mu Computer			
My Computer			
My Network Places			
Details 🚷			
Data Sources (ODBC) Shortcut Date Modified: Friday, July 15, 2005, 3:52 PM			
Size: 1.54 KB	×		

From either the User or System DSN tab, click on the Add button:

Figure 8.40. EEWinOraScreen2c.png

ame ccess Native DSN	Microsoft Access Driver	Auu
IX 32Bit PRS91	OpenLink Generic ODB	Remove
IX32bitODBC	OpenLink Generic ODB	-
IX64bitODBC	OpenLink Generic ODB	Configure
PETERS VIRTUOSO NATI	VE OpenLink Virtuoso (4.5)	
ase Test	OpenLink Lite for Inform	
aseTest	OpenLink Lite for Postg	
B2 Lite 6.0	OpenLink Lite for DB2 [
yn226_orcl	OpenLink Lite for Oracli 🧫	
ISNY RECREATION	OpenLink Generic ODB	
<u></u>		
An ODBC System	data source stores information about he provider. A System data source is visi	ow to connectible to all use

Select the OpenLinkSQLServer ODBCDriver [Express Edition][6.0] from the list presented:

Create New Data Source	Select a driver for which you want to s	et un a data source
	Name OpenLink Lite for SQL Server (TDS) OpenLink Lite for SQL Server (TDS) OpenLink Lite for SQL Server (Unico OpenLink Lite for SQL Server [6.0] OpenLink Oracle ODBC Driver (Expre OpenLink Oracle ODBC Driver (Expre OpenLink SQLServer ODBC Driver (E OpenLink SQLServer ODBC Driver (E OpenLink Virtuoso (4.5) SOL Server	32 Bit) (32 Bit) (Unicode) de) [6.0] ess Edition) (Unico ess Edition) [6.0] Express Edition) [6 Express Edition) [6
	< Back Finish	Cancel

In the Data Source tab, select a suitable DSN name and optional description for the Data Source to be created:

Figure 8.42. EEWinOraScreen4c.png

OpenLink Single Tier I	SN Configuration
	This wizard will help you create an ODBC data source that you can use to connect to a remote Database. What name do you want to use to refer to the data source? Name: How do you want to describe the data source? Description:
	< Back Next > Cancel

The Connection tab requests the minimum parameters required to make a connection to the target database:

Figure 8.43. EEWinOraSo	reen5c.png
	Which server do you want to connect to? Host localhost Port 1521 SID ORCL Advanced Login ID Password:
	< Back Next > Cancel

- *Host* : This is the fully qualified hostname, or IP address, of the machine hosting the DBMS you wish to access, e.g., dbms-server.example.com, or 192.168.155.123. Any hostname which will be resolved by your local DNS is acceptable.
- Port : This is the port that Oracle is listening on
- *SID* (Service Name) : The Oracle System Identifier that refers to the instance of the Oracle database running on the server.
- Login : This is a valid user for the Oracle Database

• Password : This is a valid password for the Oracle Database

Click next to verify that all settings are correct or uncheck the check box to delay testing to a later stage.

The advanced button displays additional optional parameters that can be configured:

Use	Attribute	Value
	NetworkProtocol	tcp
	MaxStatements	0
	ImplicitCachingEnabled	false
	ExplicitCachingEnabled	false
<		

Table 8.2.	
NetworkProtocol	Set the network protocol for the connections. Default is 'tcp'. Can be set to all possible protocols Net8 supports. Only needed for JDBC OCI driver.
MaxStatements	Specifies the value of the maxStatements property. This will be the size of the application cache (which will be used by both implicit and explicit caching).
ImplicitCachingEnabled	Sets the value of the implicitCachingEnabled property, which enables or disables the implicit cache. Note that this is independent of the cache size, set with setMaxStatements().
ExplicitCachingEnabled	Sets the value of the explicitCachingEnabled property, which enables or disables the explicit cache. Note that this is independent of the cache size, set with setMaxStatments().

As indicated above, the parameters on the options and preferences tabs are not required for a basic connection.

Figure 8.45. EEWinOraScreen6c.png

OpenLink Single Tier D	SN Configuration
	Additional parameters: Drop Catalog name from DatabaseMetaData calls Drop Schema name from DatabaseMetaData calls Return an empty ResultSet for SQLStatistics Disable support of quoted identifier Disable support of search pattern escape Patch null size of SQLChar on: 4096
	< Back Next > Cancel

- *Drop Catalog name from DatabaseMetaData calls* Enable this option to have the catalog name not appear for tables, views, and procedures when requesting database meta-data.,
- *Drop Schema name from DatabaseMetaData calls* Enable this option to have the schema-name not appear for tables, views, and procedures when requesting database meta-data.
- *Return an empty ResultSet for SQLStatistics* Check this box to have SQLStatistics() return an empty resultset. Use this if the underlying database does not support retrieving statistics about a table (e.g., what indexes there are on it).
- *Disable support of quoted identifier* If it is set, the call SQLGetInfo for 'SQL_IDENTIFIER_QUOTE_CHAR' will return the space (" "). It can be used if DBMS does not support quoted SQL, e.g., select * from "account"
- *Disable support of search pattern escape* If it is set, the call SQLGetInfo for 'SQL_LIKE_ESCAPE_CLAUSE' will return the space (" "). It can be used if DBMS doesn't support SQL escape patterns
- *Patch of NULL size of SQL_CHAR* If set, this option overrides the size of SQL_CHAR column type returned by the database with the value set in the text box (in bytes). With the default value of 0 the driver uses the size returned by the database.

Figure 8.46. EEWinOraScreen7c.png

OpenLink ODBC Driver (Express Edition) User Guide

OpenLink Single Tier DS	iN Configuration	<
	Additional connect parameters: Read-only connection Defer fetching of long data Disable interactive login Row buffer size: 60 Max rows override: 0 Initial SQL: Dynamic cursor sensitivity: Low Enable logging to the log file:	
	< Back Next > Cancel	

- *Read-only connection* Specify whether the connection is to be "Read-only". Make sure the checkbox is unchecked to request a "Read/Write" connection.
- *Disable interactive login* Suppress the ODBC "Username" and "Password" login dialog box when interacting with your ODBC DSN from within an ODBC compliant application.
- *Row Buffer Size* This attribute specifies the number of records to be transported over the network in a single network hop. Values can range from 1 to 99.
- *Max rows Override* Allows you to define a limit on the maximum number of rows to returned from a query. The default value of 0 means no limit.
- *Initial SQL* Lets you specify a file containing SQL statements that will be automatically run against the database upon connection.
- *Dynamic cursor sensitivity* Enables or disables the row version cache used with dynamic cursors. When dynamic cursor sensitivity is set high, the Cursor Library calculates checksums for each row in the current rowset and compares these with the checksums (if any) already stored in the row version cache for the same rows when fetched previously. If the checksums differ for a row, the row has been updated since it was last fetched and the row status flag is set to SQL_ROW_UPDATED. The row version cache is then updated with the latest checksums for the rowset. From the user's point of view, the only visible difference between the two sensitivity settings is that a row status flag can never be set to SQL_ROW_UPDATED when the cursor sensitivity is low. (The row status is instead displayed as SQL_ROW_SUCCESS.) In all other respects, performance aside, the two settings are the same deleted rows do not appear in the rowset if their keys fall within the span of the rowset. If your application does not need to detect the row status SQL_ROW_UPDATED, you should leave the 'High Cursor Sensitivity' checkbox unchecked, as performance is improved. The calculation and comparison of checksums for each row fetched carries an overhead. If this option is enabled, the table oplrvc must have been created beforehand using the appropriate OpenLink script for the target database.
- *Enable logging to the log file:* Specifies the full path to a text file. If the associated checkbox is checked, and a file is passed, the driver will log auto-generate a clientside ODBC trace.

Figure 8.47. EEWinOraScreen8c.png

OpenLink ODBC Driver (Express Edition) User Guide

OpenLink Single Tier D	SN Configuration Additional connect compatibility parameters: Additional connect compatibility parameters: Disable Microsoft Jet engine options Disable Autocommit Disable rowset size limit Multiple Active Statements Emulation SQL_DBMS_NAME:
	< Back Next > Cancel

- *Disable AutoCommit* Change the default commit behaviour of the OpenLink Lite Driver. The default mode is AutoCommit mode (box unchecked).
- *Disable rowset size limit* Disable the limitation enforced by the cursor library. The limitation is enforced by default to prevent the driver claiming all available memory in the event that a resultset generated from an erroneous query is very large. The limit is normally never reached.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application, even if the underlying database does not allow this, as it is emulated in the driver.
- *SQL_DBMS Name* Manually override the SQLGetInfo(SQL_DBMS_NAME) response returned by the driver. This is required for products like Microsoft InfoPath for which the return the value must be "SQL Server".

OpenLink Single Tier I	OSN Configuration	×
(AN)	A new ODBC Datasource will be created with the following configuration:	
	DpenLink Oracle Driver (Express Edition) Version: 1.0 File: C:\Program Files\OpenLink Software\UDA\bin\ntl5eeora.dll Data Source Name: OracleEE	
	Data Source Description: URL string: {ServerName=oplushp4.usnet.private;PortNumber=1521; Login ID: scott Drop Catalog name from DatabaseMetaData calls: No Drop Schema name from DatabaseMetaData calls: No Return an empty ResultSet for SQLStatistics: No Disable support of quoted identifier: No Disable support of search pattern escape: No Patch null size of SQLChar on:: 4096	
C OPENLINK SOFTWARE	Test Data Source Test XA Connection	
	< Back Finish Cancel	

Figure 8.48. EEWinOraScreen9c.png

Click on the *Test Data Source* button to verify that a successful connection can be made to the database.

Figure 8.49. EEWinOraSc	reen10c.png	
OpenLink Single Tier D	SN Configuration	×
Cart -	A new ODBC Datasource will be created with the following configuration:	
	OpenLink Oracle Driver (Express Edition) Version: 1.0 File: C:\Program Files\OpenLink Software\UDA\bin\ntl5eeora.dll Running connectivity tests Attempting connection Connection established Verifying option settings Actual database is (Oracle) Disconnecting from server	×
OPENLINK SOFTWARE	Test Data Source	
	< Back Finish Cance	3

When you click finish, you will go back to the ODBCData Source Administrator, and you should see the new DSN in the list of available DSN's:



Name		Add
Native SQLServer NETRISTA ST	OpenLink Lite for SQL (Remove
NETRISTA TEST NSAK DB2 ODBC LA	OpenLink Generic ODB OpenLink Lite for DB2 [OpenLink Lite for ODB(Configure
OPTERON PGR7 OPTERON SQL	OpenLink Generic ODB OpenLink Generic ODB	
ORA10 L A OracleEE	OpenLink Lite for Oracl OpenLink Oracle ODBC	
PatrickMuSOI	OpenLink Lite for MuSC	
An ODBC System	data source stores information about provider. A System data source is vi	how to connect to isible to all users

10 Chapter 9. OpenLink ODBC Driver for PostgreSQL (Express Edition)

Table of Contents

- OpenLink ODBC Driver for PostgreSQL (Express Edition) for Mac OS X
 - ♦ Installation Guide
 - ♦ Configuration
- OpenLink ODBC Driver for PostgreSQL (Express Edition) for Windows
 - ♦ Installation
 - ♦ Configuration

10.1 OpenLink ODBC Driver for PostgreSQL (Express Edition) for Mac OS X

10.1.1 Installation Guide

The OpenLink ODBC Driver for PostgreSQL (Express Edition) is distributed as a Disk image (DMG) file. Simply double click on the disk image 'mul6epgr.dmg' to extract the installer mpkg file:

Figure 9.1. ee-pgr-00.png



Double-click on the mpkg file to run the installer. Follow the on-screen instructions as indicated below to complete the installation:

Figure 9.2. ee-pgr-01.png

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When prompted, permit the verification script to run. This simply checks to see that you are running a version of Mac OS X later than 10.3.0:

Figure 9.3. ee-pgr-02.png



Review the Welcome message to confirm you're installing the right driver:

Figure 9.4. ee-pgr-03.png



Review the *ReadMe* for installation requirements and any known issues:

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Please read and agree to the Software License Agreement before continuing your installation:

10.1.1 Installation Guide

Figure 9.5. ee-pgr-04.png

	Software License Agreement	
Introduction	English	
🖲 Read Me	OpenLink Software License Agreement	×
License	License for Express Edition for PostgreSQL	r
Select Destination		1
Installation Type	Quantity One or more copies of this product limited to 2 concurrent connections	
Install	enforced by the Express Edition for PostgreSQL License Manager.	I
Finish Up	Additional license options shall be reflected in your <i>Express Edition for</i> <i>PostgreSQL</i> License file.	
	<u>Use</u> You (an entity or a person) can make use of the software identified above (the "Software") in the quantity stated above if you meet the following conditions:	
	OpenLink Client Components (Express Edition for PostgreSQL) You must acquire one copy of the software for each client on which	1 1 1
	Print) Save) Go Back) Continu	e

Select the destination volume for driver installation:

Figure 9.8. ee-pgr-07.png

	Select a Destination	
Introduction	Select a destination volume to install the OpenLink Express Edition driver for PostgreSQL software.	
🖯 Read Me		
License		
• Select Destination		
Installation Type	Macintosh HD	
Install	93.0GB (8.3GB Free)	
Finish Up	Installing this software requires 10.0MB of space.	
	You have chosen to install this software on the volume "Macintosh HD."	

Accept the default installation of the driver, or click *Customize* to select specific components for installation:

Figure 9.9. ee-pgr-08.png

E	asy Install on "Macintosh HD"
 Introduction Read Me License 	Click Install to perform a basic installation of this software package on the volume "Macintosh HD."
Select Destination	
Installation Type	
Install	
Finish Up	

Select the components to be installed, or click *Easy Install* to return to the default:



The Software must be installed as a user with Administrative privileges on the machine. When prompted, provide a relevant username and password:

Figure 9.11. ee-pgr	-10.png	
	A	uthenticate
In In	staller requi	res that you type your password.
	Name: Op	enLink
Pa	ssword: •••	
Details		
?		Cancel OK

Installation will proceed.

Figure 9.12. ee-pgr-11.png

	Installing OpenLink Express Edition driver for PostgreSQI		
⊖ Introduction ⊖ Read Me			
License			
 Select Destination Installation Type Install Finish Up 	Preparing OpenLink Express Edition driver for		
	PostgreSQL		
	Preparing Target Volume		

During installation, you will be prompted to select a license file for the driver. If such a license file already exists on the machine, then select the 'use existing file' option.

Figure 9.13. ee-pgr-15.png

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	Dic-disabled	;	Q search
Natural	Name	Date Modified	1
Network	🖳 ee_mys_lt.lic	7/17/06	
Macintosh HD	🗓 ee_pgr_lt.lic	7/17/06	
	mys3_lt.lic	5/18/06	
OpenLink 🔺	mys4_lt.lic	5/18/06	
	mys5_lt.lic	5/18/06	
Desktop root Applications Documents			

If you accidentally clicked this option, you can cancel out of the selection dialog. As the following alert will explain, you can manually apply the license file at any point in the future:

Figure 9.14. ee-pgr-16.png



A trial or permanent license may be obtained by selecting the *Try and Buy* option which loads our online try and buy web page:

Figure 9.15. ee-pgr-12.png

	The installation convices a license file (on new It lie) for
1	operation.
-	Press the 'Try or Buy' button to request a license using your
	browser. You will receive a license as an email attachement
	Press the 'Use existing License' button if you have already
	recived a license.
	On the next dialog, press the 'Choose' button to select the
	license file for use or 'Cancel' to continue without one.
	Try or Buy License Use existing Licen

A permanent license may be obtained by clicking on the 'Shop' link to visit our online store, or you may obtain a trial license by registering with and logging in to the OpenLink Web site:

Figure 9.16. ee-pgr-13.png



Click on the 'Download License' button to immediately obtain an evaluation license file; it will be saved to your Browser's download folder (which typically defaults to your desktop). A message will also be sent to your email address with a link to your OpenLink Data Space (ODS) Briefcase, where all non-expired trial and full license files will be stored for download at your convenience.

Figure 9.17. ee-pgr-14.png

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Close the browser, and proceed as if you had selected the option to *use existing file*. Select the license file to be used for the installation:

Figure 9.18. ee-pgr-15.png

			6	
	lic-disabled		Qsearch	
Natural	Name	Date Modified		
Network	👊 ee_mys_lt.lic	7/17/06		
Macintosh HD	ne_pgr_lt.lic	7/17/06		
	mys3_lt.lic	5/18/06		
OpenLink 🔺	mys4_lt.lic	5/18/06		
	mys5_lt.lic	5/18/06		
OpenLink 🔺	pgr7_lt.lic	5/18/06		
Desktop				
root				
Applications				
Documents				

Installation is now complete, and you can exit the Installer and proceed to configure a DSN:



10.1.2 Configuration

To configure an ODBC DSN, double-click the *OpenLink ODBC Administrator.app* located in /Applications/Utilities/, or the *iODBC Administrator.app* located in /Applications/iODBC/:

Figure 9.20. ee-pgr-18.png



Figure 9.21. ee-pgr-19.png

OpenLink ODBC Driver (Express Edition) User Guide



Click on the Add button, to create a new DSN (Data Source Name):

User DSN System DSN	File DSN ODBC Drivers Connect	ion Pooling Tracing Abo
tem Data Sources		
Name	Description	Driver Add
FMPro – TestMusic	A CONTRACTOR	Oper 🔺
Local Virtuoso	Virtuoso database	Oper CRemov
Local Virtuoso Demo	Virtuoso Demo database	Oper Configu
MISUK	171	Oper
MISUS	2 ¹² 4	Oper
mul60emy3ansi	-	Oper Test
mul60emy3unicode	1 - 1	Oper
mul60epg7ansi	8 <u>14</u> 3	Oper
mul60epg7unicode	0.00	Oper 🗸
+ () 4 1
An ODBC System data provider. A machine.	n data source stores information about h System data source is visible to all users	ow to connect to the indicated s and processes on this

Choose the *OpenLink PostgreSQL Driver (Express Edition) v6.0* from the list of available drivers. Choose the *OpenLink PostgreSQL Driver (Express Edition)(Unicode) v6.0 if and only if* you are working with multi-byte character sets, as

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unnecessary translations can significantly ODBC performance:

Figure 9.23. ee-pgr-21.png

1.11			A CONTRACTOR OF A CONTRACTOR O	
$^{\circ}$	hooro	2.02	ODDC	Driver
	nouse	dfl	UDDL.	Driver

	Name	17
	OpenLink Oracle 8 Lite Driver v6.0	1
	OpenLink Oracle 9 Lite Driver (Unicode) v6.0	
10101001001	OpenLink Oracle 9 Lite Driver v6.0	- 1
	OpenLink Oracle Driver (Express Edition) v6.0	- 1
	OpenLink Oracle Driver (Express Edition)(Unicode) v6.0	
	OpenLink PostgreSQL Driver (Express Edition) v6.0	
	OpenLink PostgreSQL Driver (Express Edition)(Unicode) v	6.0
AN MARCH	OpenLink PostgreSQL Lite Driver (Unicode) v6.0	4
N/A	OpenLink PostgreSQL Lite Driver v6.0	
	OpenLink SQL Server Lite Driver (Unicode) v6.0	+
		•

In the Data Source tab, enter a suitable name and optional description for the DSN being created:

Figure 9.24. ee-pgr-22.png

	Data Source	Connection	Options	Preferences	Test
. 88	What nam	e do you want	to use to re	fer to this data	source ?
	DSN	mul	60epg7an	isi	
<u>ju</u>	How do w	ou want to desc	ribe this da	ta source 2	
00100	Descrip	tion	tibe this da		
uto t					
	4				
K	1				
	(Finil)			(C. Deal	Contin

The Connection tab requests the minimum parameters required to make a connection to the target database:

- Host the name of the server on which the target PostgreSQL instance is running
- Port the port at which the target PostgreSQL instance is listening (default 5432)
- Database the name of a valid database in the target PostgreSQL instance
- Username a valid PostgreSQL username

Figure 9.25. ee-pgr-23.png

Data	Source	Connection	Options	Preferences	Test
and V	Vhich ser	wer do you war	nt connect to	o?	
		Host	oplussol3	l	
		Port	5432		
		Database	odbc		
010					
		User name	openlink		
				0	Advanced

If desired, click the *Advanced* button to set additional parameters relevant to the PostgreSQL connection. None of these need be changed for a basic connection:

PrepareThreshold Sets the default threshold for enabling server-side prepare. Default 0

Use	Attribute	Value	
	PrepareThreshold	0	
۲C		********)) 4 Þ

As suggested above, the parameters of the Options and Preferences tabs need not be changed for a basic connection:

Figure 9.27. ee-pgr-25.png

OpenLink ODBC Driver (Express Edition) User Guide

(Data Source Connection Options Preferences Test
-111	Row buffer size 60
	Jet options
1010100 Loca	 Drop catalog from meta calls Drop schema from meta calls No support of quoted identifier SQL statistic disabled
	No support of search string escape
N.K	Patch of NULL size of SQL_CHAR 0
44	Patch of NULL size of SQL_CHAR 0 SQL DBMS name

- *Row Buffer Size* This attribute specifies the number of records to be transported over the network in a single network hop. Values can range from 1 to 99.
- *Hide Login Dialog* Suppress the ODBC "Username" and "Password" login dialog box when interacting with your ODBC DSN from within an ODBC-compliant application.
- *Read Only connection* Specify whether the connection is to be read-only. Make sure the checkbox is unchecked to request a read/write connection.
- Drop Catalog from Meta calls Enable this option to have the catalog name not appear for tables, views and procedures when requesting database metadata.
- Drop Schema from Meta calls Enable this option to have the schema-name not appear for tables, views and procedures when requesting database meta-data.
- *SQLStatistics disabled* Check this box to have SQLStatistics() return an empty resultset. Use this if the underlying database does not support retrieving statistics about a table (e.g. what indexes there are on it).
- *No support of quoted identifier* If it is set, the call SQLGetInfo for 'SQL_IDENTIFIER_QUOTE_CHAR' will return the space (" "). It can be used if DBMS doesn't support quoted SQL such as select * from "account"
- *No support of search string escape* If it is set, the call SQLGetInfo for 'SQL_LIKE_ESCAPE_CLAUSE' will return the space (" "). It can be used if DBMS doesn't support SQL escape patterns
- *Patch of NULL size of SQL_CHAR* If set this option overrides the size of SQL_CHAR column type returned by the database with the value set in the text box (in bytes). With the default value of 0 the driver uses the size returned by the database.
- *SQL_DBMS Name* Manually override the SQLGetInfo (SQL_DBMS_NAME) response returned by the driver. This is known to be required for products like Microsoft InfoPath for which the return the value should be "SQL Server".

Figure 9.28. ee-pgr-26.png

(Data Source Connection Op	tions Preferences Test
	Initialization SQL	Browse
	Cursor sensitivity Low	•
01010100100	Max rows override 0	
1010000	Disable autocommit	
VIUI.	Disable rowset size limit	
	Defer fetching of long data	L
	Multiple Active Statements	Emulation
Cancel	Finish	Go Back Continue

- *Initialization SQL* Lets you specify a file containing SQL statements that will be run against the database upon connection, automatically.
- *Cursor Sensitivity* Enables or disables the row version cache used with dynamic cursors. When dynamic cursor sensitivity is set high, the Cursor Library calculates checksums for each row in the current rowset and compares these with the checksums (if any) already stored in the row version cache for the same rows when fetched previously. If the checksums differ for a row, the row has been updated since it was last fetched and the row status flag is set to SQL_ROW_UPDATED. The row version cache is then updated with the latest checksums for the rowset. From the user's point of view, the only visible difference between the two sensitivity settings is that a row status flag can never be set to SQL_ROW_UPDATED when the cursor sensitivity is low. (The row status is instead displayed as SQL_ROW_SUCCESS.) In all other respects, performance aside, the two settings are the same deleted rows don't appear in the rowset if their keys fall within the span of the rowset. If your application does not need to detect the row status SQL_ROW_UPDATED, you should leave the 'High Cursor Sensitivity' checkbox unchecked, as performance is improved. The calculation and comparison of checksums for each row fetched carries an overhead. If this option is enabled, the table oplrvc must have been created beforehand using the appropriate script for the target database.
- *MaxRows Override* Allows you to define a limit on the maximum number of rows to returned from a query. The default value of 0 means no limit.
- *Disable AutoCommit* Change the default commit behaviour of the OpenLink Lite Driver. The default mode is AutoCommit mode (box unchecked).
- *Disable Rowset Size Limit* Disable the limitation enforced by the cursor library. The limitation is enforced by default to prevent the Driver claiming all available memory in the event that a resultset is generated from an erroneous query is very large. The limit is normally never reached.
- *Defer fetching of long data* Defer fetching of LONG (BINARY, BLOB etc.) data unless explicitly requested in query. This provides significant performance increase when fields in query does not include LONG data fields.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.

Click on the Test Data Source button to make a connection to the database to verify connectivity:

Figure 9.29. ee-pgr-27.png

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new ODBC	Datasource will I	be created with	the following	ng configuration	1:	
UserName	ce Name: mul606	epg/ansi				
URLString:	{ServerName=0	olussol3:PortNu	mber=543	2:DatabaseNam	e=odbc:}	1
FetchBuffe	rSize: 60				,	
NoLoginBo	x: No					ĩ
MaxRows:	0					
NoAutoCo	mmit: No					
NoRowset	SizeLimit: No					
< > C)) + +
		(T. 1 D.				

Enter a valid username and password for the target database:

DSN : (File DSN) Username openlink
Username openlink
Password ••••

A successful connection to the database has been made:



10.2 OpenLink ODBC Driver for PostgreSQL (Express Edition) for Windows

10.2.1 Installation

The OpenLink ODBCDriver for PostgreSQL(Express Edition) is distributed as a Windows MSI installer. Simply double click on the installer 'ntl6epgr.msi' to commence the installation:

Figure 9.32. EEWinpgrinst01.png



Installer Welcome Dialog for the OpenLink ODBCDriver for PostgreSQL(Express Edition):

Figure 9.33. EEWinpgrinst02.png



Please read the software license agreement and accept before continuing your installation:

Figure 9.34. EEWinpgrinst03.png

	agreement below to proceed.	
OPENLINK SOFTWAR	E LICENSE AGREEMEN	IT 🔺
TYPE		
License for OpenLink Universal	Data Access Driver Suite.	
QUANTITY		
One or more copies of this produ connections, maintained by the s license options shall be reflected	ict limited to 2 concurrent users, and server based OpenLink License Ma I in your registration key.	d 4 concurrent mager. Additional
USE		
You (an entity or a person) can r "Software") in the quantity state	nake use of the software identified a d above if you meet the following co	above (the onditions:
OnenLink Server Components (f	InenLink Request Broker & OnenLi	ink Database 🛛 🗷
-	22	

Before installation you will be prompted for a license file. If a license file already exists on the machine, then select the 'use exisiting file' option. A trial (try) or full (buy) license can be obtained by selecting the 'try and buy' option, which loads OpenLink's online try and buy web page:

Figure	9.35.	EEWin	pgrinst04.	.png
	/		P SI III O CO II	· · · · · ·

OpenLink F	Postgres ODBC Driver (I	Express Edition) Set	up	_ 🗆 🗙
Product L Select ti	icense he folder containing the pro	duct license.		ø
[22] Install th	This product requires a automatically place in th 'ee_pgr_lt.lic' license file in. he license file from this folde	product license for use, le correct location for yo click the 'Browse' butto r:	which the installer ca u. If you already have on and locate the fold	n ea eritis
C:\			Brow	se
Alternati to reque	ively, click the 'Try & Buy' b st a license, if you don't ha n't want to install a license f	utton to use your Web b ve one yet. ile right now.	orowser Try & B	uy
				1

To obtain the trial license, you must be a registered user on the OpenLinkWeb site and login with your username (e-mail address) and password. Click on the 'Shop' link to visit OpenLink's online shop cart to purchase a full license, if required:

Click on the 'download license' button to immediately obtain the license file and save it to your desktop. Alternatively, an auto-generated e-mail will be sent to your registered e-mail address. This email will contain a link to your OpenLinkData Space (ODS). The OpenLinkData Space (ODS) contains copies of all trial and full license files in a Briefcase for download at a later date.



Select the license file to be used for the installation:

ook in: 🛛 🗐 Local D	isk (C:)		-
CA_LIC	KPCMS	🚞 Perl	
DB2	🚞 My Documents	🚞 Program Files	
DB2LOG	🧰 My Titles	🚞 Progress	
Documents and Settings	🧰 Netrista	🧰 temp	
📄 Geistkraft	🚞 NSR	🧰 tmp	
IFMXDATA	🚞 OpenEdge	VBNET	
ISM 📃	🚞 OpenLink	🚞 WINDOWS	
•[
older name:			пк

Choose to perform a custom, typical or complete installation of the driver:



Select the features to be installed:

Figure 9.39. EEWinpgrinst08.png

enLink Postgres	ODBC Driver (E	xpress Edition) S	etup	
elect Features Please select whic	ch features you wo	ould like to install.		I CONTRACTOR
	penLink Express E ■	dition Drivers	This fea 192KB o drive. It subfeatu The sub 1400KB drive.	ture frees up on your hard has 2 of 2 ires selected. features require on your hard
Description:				

Click the install button to begin the installation of components:

Figure 9.40. EEWinpgrinst09.png

OpenLink Postgres ODBC Driver (Ex	press Edition) S	etup	
Ready to Install The installer is ready to begin the Cus	tom installation.		<u>و</u>
Click Install to begin the installation. If settings, click Back. Click Cancel to e	you want to review wit the installer.	v or change any of y	our installation
	< Back	Install	Cancel

Installation in progress:

Figure 9.41. EEWinpgrinst10.png

🙀 OpenLink Postgres ODBC Driver (Express Edition) Setup	
Installing OpenLink Postgres ODBC Driver (Express Edition)	Q
Please wait while the installer installs OpenLink Postgres ODBC Driver (Express Edition). This may take several minutes.	
Status: Validating install	
	Cancel

The Software installation is complete and ready for use:

Figure 9.42. EEWinpgrinst11.png
OpenLink ODBC Driver (Express Edition) User Guide



10.2.2 Configuration

To configure an ODBCDSN, run the ODBCAdministrator located in the Administrative Tools section of the Control Panel:

Figure 9.43. EEWinpgrconf01.png



Click on the Drivers tab to confirm the OpenLink PostgreSQL ODBCDriver [Express Edition][6.0] has been successfully installed:

Figure 9.44. EEWinpgrconf02.png

💞 ODBC Data Source Administrator		? 🗙
User DSN System DSN File DSN Drivers Tracing Connection ODBC Drivers that are installed on your system:	Pooling Abo	ut
Name	Version	~
OpenLink MySQL ODBC Driver (Express Edition) [6.0] OpenLink Oracle ODBC Driver (Express Edition) (Unicode) [6.0] OpenLink Oracle ODBC Driver (Express Edition) [6.0] OpenLink Postgres ODBC Driver (Express Edition) (Unicode) [6.0] OpenLink Postgres ODBC Driver (Express Edition) (6.0] OpenLink SQLServer ODBC Driver (Express Edition) (Unicode) [6.0] OpenLink SQLServer ODBC Driver (Express Edition) (6.0] OpenLink SQLServer ODBC Driver (Express Edition) [6.0] Oracle in OraClient10g Progress OpenEdge 10.1A driver SQL Server	1.00.00.00 1.00.00.00 1.00.00.00 1.00.00.00 1.00.00.00 1.00.00.00 1.00.00.00 10.02.00.01 5.10.00.37 2000.81.771	
	>	
An ODBC driver allows ODBC-enabled programs to get inf ODBC data sources. To install new drivers, use the driver program.	ormation from 's setup	
OK Cancel Apply	Hel	p

From either the User or System DSN tabs, click on the Add button and select the OpenLink PostgreSQL ODBCDriver [Express Edition][6.0] from the list :

Figure 9.45. EEWinpgrconf03.png



In the Data Source tab, select a suitable DSN name and optional description for the Data Source to be created:

Figure 9.46. EEWinpgrconf04.png

OpenLink Single Tier D	SN Configuration This wizard will help you create an ODBC data source that you can use to connect to a remote Database. What name do you want to use to refer to the data source? Name: PostgreSQL Express Demo How do you want to describe the data source?
COPENLINK SOFTWARE	<pre></pre>

The Connection tab requests the minimum parameters required to make a connection to the target database:

Figure 9.47. EEWinpgrcor	f05.png		
OpenLink Single Tier D	N Configuration		×
(m)	Which server do you Host	u want to connect to? oplussol3	
- CARANA	Port	5432	
	Database	testsuite	
	Connect now to Login ID Password	verify that all settings are correct. openlink	Advanced
S O F T W A R E	Fasswolu.		
		<back next=""></back>	Cancel

- *Host* : This is the fully qualified hostname or IP address of the machine hosting the DBMS you wish to access, e.g., dbms-server.example.com, or 192.168.155.123. Any hostname which will be resolved by your local DNS is acceptable.
- Port : This is the port on which PostgreSQL is listening
- Database : This is the name of the PostgreSQL database to which you want to connect
- Login ID : This is a valid user name for the PostgreSQL database

• Password : This is a valid password for the PostgreSQL database

Click next to verify that all settings are correct or uncheck the check box to delay testing to a later stage.

The advanced button displays additional, optional parameters that can be configured:

Figure 9.48. EEWinpgrconf06.png

ed connection prop	erties 🛛 🔀
Attribute	Value
PrepareThreshold	0
20	
it	OK Cancel
	Attribute PrepareThreshold

Table 9.1.

Figure 9.49. EEWinpgrconf17.png

PrepareThreshold Sets the default threshold for enabling server-side prepare.

As indicated above, the parameters on the options and preferences tabs are not required for a basic connection.

OpenLink Single Tier D	SN Configuration	X
	Additional parameters: Drop Catalog name from DatabaseMetaData calls Drop Schema name from DatabaseMetaData calls Return an empty ResultSet for SQLStatistics Disable support of quoted identifier Disable support of search pattern escape Patch null size of SQLChar on: 4096	
	<back next=""> Ca</back>	ncel

- *Drop Catalog name from DatabaseMetaData calls* Enable this option to have the catalog name not appear for tables, views, and procedures when requesting database meta-data.
- Drop Schema name from DatabaseMetaData calls Enable this option to have the schema-name not appear for tables, views, and procedures when requesting database meta-data.
- *Return an empty ResultSet for SQLStatistics* Check this box to have SQLStatistics() return an empty resultset. Use this if the underlying database does not support retrieving statistics about a table, e.g., what indexes there are on it.
- *Disable support of quoted identifier* If it is set, the call SQLGetInfo for 'SQL_IDENTIFIER_QUOTE_CHAR' will return the space (" "). It can be used if the DBMS does not support quoted SQL, e.g., select * from "account."
- *Disable support of search pattern escape* If it is set, the call SQLGetInfo for 'SQL_LIKE_ESCAPE_CLAUSE' will return the space (" "). It can be used if the DBMS does not support SQL escape patterns.
- *Patch of NULL size of SQL_CHAR* If set, this option overrides the size of SQL_CHAR column type returned by the database with the value set in the text box (in bytes). With the default value of 0, the driver uses the size returned by the database.

OpenLink Single Tier D	SN Configuration
	Additional connect parameters: Pead-only connection Defer fetching of long data Disable interactive login Row buffer size: 60 Max rows override: 0 Initial SQL: Dynamic cursor sensitivity: Low Enable logging to the log file:
	< Back Next > Cancel

Figure 9.50. EEWinpgrconf08.png

- *Disable Interactive Login* Suppress the ODBC "Username" and "Password" login dialog box when interacting with your ODBC DSN from within an ODBC compliant application.
- *Row Buffer Size* This attribute specifies the number of records to be transported over the network in a single network hop. Values can range from 1 to 99.
- *Max rows override* Allows you to define a limit on the maximum number of rows to be returned from a query. The default value of 0 means no limit.
- *Initial SQL* Lets you specify a file containing SQL statements that will be automatically run against the database upon connection.
- *Dynamic Cursor Sensitivity* Enables or disables the row version cache used with dynamic cursors. When dynamic cursor sensitivity is set high, the Cursor Library calculates checksums for each row in the current rowset and compares these with the checksums (if any) already stored in the row version cache for the same

rows when fetched previously. If the checksums differ for a row, the row has been updated since it was last fetched, and the row status flag is set to SQL_ROW_UPDATED. The row version cache is then updated with the latest checksums for the rowset. From the user's point of view, the only visible difference between the two sensitivity settings is that a row status flag can never be set to SQL_ROW_UPDATED, when the cursor sensitivity is low. (The row status is instead displayed as SQL_ROW_SUCCESS.) In all other respects, performance aside, the two settings are the same - deleted rows do not appear in the rowset, updates to the row since the row was last fetched are reflected in the row data, and inserted rows appear in the rowset if their keys fall within the span of the rowset. If your application does not need to detect the row status SQL_ROW_UPDATED, you should leave the 'High Cursor Sensitivity' checkbox unchecked, as performance is improved. The calculation and comparison of checksums for each row fetched carries an overhead. If this option is enabled, the table oplrvc must have been created beforehand using the appropriate OpenLink script for the target database.

• *Enable logging to the log file:* - Specifies the full path to a text file. If the associated checkbox is checked, and a file is passed, the driver will log auto-generate a clientside ODBC trace.

Figure 9.51. EEWinpgrconf09.png

OpenLink Single Tier D	SN Configuration	
	Additional connect compatibility parameters: Enable Microsoft Jet engine options Disable Autocommit Disable rowset size limit Multiple Active Statements Emulation SQL_DBMS_NAME:	
	< Back Next > Can	cel

- *Disable AutoCommit* Change the default commit behaviour of the OpenLink Driver. The default mode is AutoCommit (box unchecked).
- *Disable Rowset Size Limit* Disable the limitation enforced by the cursor library. The limitation is enforced by default to prevent the Driver claiming all available memory in the event that a resultset generated from an erroneous query is very large. The limit is normally never reached.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.
- *SQL_DBMS Name* Manually override the SQLGetInfo(SQL_DBMS_NAME) response returned by the driver. This is required for products like Microsoft InfoPath for which the return value must be "SQL Server".

Click on the Test Data Sourcebutton to verify that a successful connection can be made to the database.

Figure 9.52. EEWinpgrconf10.png



11 Chapter 10. OpenLink ODBC Driver for SQL Server (Express Editon)

Table of Contents

- OpenLink ODBC Driver for SQL Server (Express Editon) for Mac OS X
 - ♦ Installation Guide
 - ♦ Configuration
- OpenLink ODBC Driver for SQL Server (Express Editon) for Windows
 - ♦ Installation
 - ♦ Configuration

11.1 OpenLink ODBC Driver for SQL Server (Express Editon) for Mac OS X

11.1.1 Installation Guide

The OpenLink ODBC Driver for SQL Server (Express Edition is a distributed as a Disk Image (DMG) file. Simply double click on the disk image 'mul6esql.dmg' to extract the installer mpkg file:



Double-click on the mpkg file to run the installer and following the on screen instriuction as indicated below to complete the installation:

Figure 10.2. SQLpackage.png

OpenLink-SQLServer-EE-UDA6.0-MacOSX-10.4-Universal $\Theta \Theta \Theta$ 88 🗏 🖽 - #-Q Network Macintosh HD OpenLink-SQLServer-EE-UDA6.0-MacOSX-10.4-Universal OpenLink-SQLServer-Desktop ExpressEdition.mpkg 1 emmaroth Applications Documents Movies Music 6 Pictures 1 item, 35.4 MB available ★田

Installer Welcome Dialog for the OpenLink ODBC Driver for SQL Server (Express Edition):

Figure 10.3. SQLinstall1.png $\Theta \Theta \Theta$ 🥪 Install OpenLink Express Edition driver for SQLServer Welcome to the OpenLink Express Edition driver for SQLServer Installer Introduction Read Me OPENLINK License Select Destination Installation Type Universal Install Data Access Driver Suite Finish Up Single-Tier Edition © 2002 OpenLink Sotware This installation program will guide you through the process of installing the OpenLink Express Edition for SQLServer driver. Go Back Continue C

Please review the readme file for installation requirements and known issues:

Figure 10.4. SQLinstall3.png

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	Important Information
Introduction	Release 6.0, April 2006
🖯 Read Me	This installation program will install the following Universal Binary
License	Format components:
Select Destination	OpenLink Express Edition for SQLServer
Installation Type	OpenLink iODBC Driver Manager OpenLink iODBC Administrator
 Install 	OpenLink iODBC Sample Program
Finish Up	
	Minimum System Requirements
	• Mac OS X 10.3.9 or above
	Known ODBC-Compliant Application Issues
	REALbasic variants through Version 4.0 were not fully ODBC-

Please read the software license agreement before continuing your installation:





Figure 10.6. SQLinstall6.png

Select destination volume for driver installation:

Figure 10.7. SQLinstall7.png

	Select a Destination
Introduction	Select a destination volume to install the OpenLink Express Edition driver for SQLServer software.
🖯 Read Me	
⊖ License	
Select Destination	
Installation Type	Macintosh HD
Install	74.4GB (59.9GB Free)
Finish Up	Installing this software requires 9.8MB of space.
	You have chosen to install this software on the volume "Macintosh HD."
2	Go Back Continu

Choose to perform a custom or default installation of the driver:

Figure 10.8. SQLinstall8.png

E	asy Install on "Macintosh HD"
Introduction	
⊖ Read Me	Click Install to perform a basic installation of this
⊖ License	software package on the volume Macintosh HD.
⊖ Select Destination	
O Installation Type	
Install	
Finish Up	

If you chose the custom option select which of the components below are to be installed:

```
Figure 10.9. SQLinstall10.png
```

Introduction	▼ ✓ iODBC Driver Manager and SDK		4 0140
 Introduction Read Me License Select Destination Installation Type 	 iODBC Frameworks (runtime) iODBC Software Development Kit OpenLink iODBC Administrator iODBC Samples and Sources License Manager Express Edition driver for SQLServer 	Install Install Install Install Install	4.8MB 1.1MB 208KB 2.9MB 652KB 180KB 4.8MB
 Finish Up 	Space Required: 9.8MB Remai	ning: 59.9GB	0.000

The Software must be installed as a user with Administrative privileges on the machine:

Figure 10.10. SQLinstall12.	ong
	Authenticate
Installer re	equires that you type your password.
Name:	OpenLink
Password:	•••••
Details	
?	Cancel OK

After the driver has been installed you will be prompted for a license file. If a license file already exists on the machine then select the 'use exisiting file' option. A trial (try) or full (buy) license can be obtain by selecting the 'try and buy' option which loads our online try-and-buy web page:

Figure 10.11. SQLinstall14.png

0	Select license file
Q	The installation requires a license file (ee_sql_lt.lic) for operation.
	Press the 'Try or Buy' button to request a license using your browser. You will receive a license as an email attachement.
	Press the 'Use existing License' button if you have already recived a license.
	On the next dialog, press the 'Choose' button to select the license file for use or 'Cancel' to continue without one.
	Try or Buy License

To obtain the trial license you must be a registered user on the OpenLink Web site and login with the username (e-mail address) and password for that user. Click on the 'Shop' link to visit our online shop cart to purchases a full license if required:

Figure 10.12. SQLinstall15.png

OpenLink ODBC Driver (Express Edition) User Guide



Universal Data Access Drivers Download

You have selected Single-Tier (Express Edition) ODBC Drivers for Microsoft SQL Server (Release 6.0) fo 10.4.x (32 Bit) (PowerPC)

Try Single-Tier (Express Edition)	Buy Single-Tier (Express Edition)
Welcome back Ms Emma Roth Check my Details Next > Change Login	You can proceed directly to online sales with this product to purchase a full license.
15	

Go back to the start to download more software.

© 2005 OpenLink Software

Click on the 'download license' button to obtain the license file immediately and save to your desktop. Alternatively an auto e-mail will be sent to the registered users e-mail address with a link to their OpenLink Data Space (ODS) where all trial and full license files will be stored in the Briefcase for download at a later date.

Figure 10.13. SQLinstall16.png



Select the license file to be used for the installation:

Figure 10.14. SQLinstall18.png

OpenLink ODBC Driver (Express Edition) User Guide

		Deskton		O search
Network	4	bench_user.log	DbVisualizer ee_sql_lt.lic	
Macintosh HD		□ Desktop □ Documents	mul6esql.dmg	
OpenLink 🔺		install s captures ► installation images ►	 OSXvnc Picture 1 	
Desktop	^	☐ Library ► ☐ License ►	Picture 2 Picture 3	
root		☐ Log Files ► ☐ Magazines ►	Picture 4	Name ee_sql_lt.lic
Applications		📁 Movies 🔹 🕨	🍸 🖹 Picture 6	▲ Size 4 KB
Documents	1	a mul6esql.dmg Ø Music ►	Picture 7	Created Today at 11 11:07 AM

Installation is complete:



11.1.2 Configuration

To configure an ODBC DSN, run the OpenLink iODBC Administrator located in the /Applications/iODBC folder:

Figure 10.16. ODBCadmin.png

11.1.2 Configuration

OpenLink ODBC Driver (Express Edition) User Guide



Click on the add button to Choose the ODBC Driver the DSN should be created for:

Figure 10.17. SQLconfig1.png

lame	Description	Driver	Add
ocal Virtuoso	Virtuoso database	OpenLink Virtuc	
ocal Virtuoso Demo	Virtuoso Demo database	OpenLink Virtuc	Remove
/lySQLdsnMacOSX	-	OpenLink MySQ	Configura
)racleExpress	-	OpenLink Oracle	Configure
ostgreSQLdsnMacOS	x –	OpenLink Postg	
QLexpress	-	OpenLink SQLSe	Test
QLserverMacOSX	-	OpenLink SQL S	<u>Crest</u>
ybaseEE	-	OpenLink SQLSe	
/irtUDA	7	OpenLink Virtuc	
)))	
An ODBC Sys data provide machine.	stem data source stores informatior r. A System data source is visible to	n about how to connect all users and processe	to the indicated s on this

Choose the OpenLink SQL Server Driver (Express Edition) v6.0 from the list of available drivers:

230

Figure 10.18. SQLconfig2.png

Choose an ODBC Driver

Oper Oper	Link PostgreSQL Lite Driver v6.0 Link SQL Server Lite Driver (Unicode) v6.0 Link SQL Server Lite Driver v6.0
Oper	Link SQLServer Driver (Express Edition) v6.0
Oper Oper	Link SQLServer Driver (Express Edition)(Unicode) v6.0 Link Virtuoso (4.0)
)+

In the Data Source tab, select a suitable DSN name and optional description for the Data Source to be created:

Figure 10.19. SQLconfig3.png

Data Source	Connection	Options	Preferences	Test
What nam	ne do you war	it to use to re	fer to this data	source ?
DSN	sc	LserverExp	ressEdition	
50				

The Connection Tab request the minimum paramters required to make a connection to the target database: Figure 10.20. SQLconfig4.png

{	Data Source	Connection	Options	Preferences	Test	
-	Which ser	ver do you war	nt connect to	0?		
		Host	sqlserver	.example.con	n	•
15		Port	1433]
C		Database	Northwin	d]
14		User name	sa)
ODEC				(Advanced)

Host: This is the fully qualified hostname, or IP address, of the machine hosting the DBMS you wish to access, e.g., dbms-server.example.com, or 192.168.155.123. Any hostname which will be resolved by your local DNS is acceptable.

Port: This is the port on which SQL Server is listening

Figure 10.21. SQLconfig5.png

Database: This is the SQL Server database that you want to connect to

User Name: This is a valid user for the SQL Server Database

The advanced button displays additional optional parameters that can be configured

Tds 8.0 Cachemetadata false Charset Language Domain Instance	Use	Attribute	Value	
Instance >>>		Tds Cachemetadata Charset Language Domain	8.0 false	Ċ
	•	Instance)+

Table 10.1.	
Tds	The version of TDS to be used.(default - '8.0')
Cache metadata	When used with prepareSQL=3, setting this property to true will cause the driver to cache column metadata for SELECT statements. Use with care.(default - false)
Charset	Very important setting; this determines the byte value to character mapping for CHAR/VARCHAR/TEXT values. Applies for characters from the extended set (codes 128-255). For NCHAR/NVARCHAR/NTEXT values doesn't have any effect since these are stored using Unicode. (Default - the character set the server was

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	installed with.)
Language	Applies for characters from the extended set (codes 128-255). For NCHAR/NVARCHAR/NTEXT values doesn't have any effect since these are stored using Unicode.(default - the character set the server was installed with)
Domain	Specifies the Windows domain in which to authenticate. If present and the username and password are provided, it uses Windows (NTLM) authentication instead of the usual SQL Server authentication (i.e. the user and password provided are the domain user and password). This allows non-Windows clients to log in to servers which are only configured to accept Windoes authentication.
Instance	Named instance to connect to. SQL Server can run multiple so-called 'named instances' (i.e. different server instances, running on different TCP ports) on the same machine. When using Microsoft tools, selecting one of these instances is made by using '[host_name]\[instance_name]' instead of the usual '[host_name]'. You will have to split the two and use the instance name as a property.
AppName	Application name. Of no practical use, it is displayed by Enterprise Manager or Profiler associated with the connection.
ProgName	Client library name. Of no practical use, it is displayed by Enterprise Manager or Profiler associated with the connection.
Wsid	Workstation ID. Of no practical use, it is displayed by Enterprise Manager or Profiler associated with the connection.(default - the client host name)
MacAddress	Network interface card MAC address.(default - '00000000000')
SendStringParametersAsUnicode	Determines whether string parameters are sent to the SQL Server database in Unicode or in the default character encoding of the database.(default - true)
LastUpdateCount	If true only the last update count will be returned by executeUpdate(). This is useful in case you are updating or inserting into tables that have triggers (such as replicated tables); there's no way to make the difference between an update count returned by a trigger and the actual update count but the actual update count is always the last as the triggers execute first. If false all update counts are returned; use getMoreResults() to loop through them. (default - true)
PrepareSQL	This parameter specifies the mechanism used for Prepared Statements.(default - 3 for SQL Server)
PacketSize	The network packet size (a multiple of 512).(default - 4096 for TDS 7.0/8.0; 512 for TDS 4.2/5.0)
TcpNoDelay	true to enable TCP_NODELAY on the socket; false to disable it.(default - true)
LobBuffer	The amount of LOB data to buffer in memory before caching to disk. The value is in bytes for Blob data and chars for Clob data.(default - 32768)
MaxStatements	The number of statement prepares each connection should cache. A value of 0 will disable statement caching.(default - 500)
LoginTimeout	The amount of time to wait (in seconds) for a successful connection before timing out. If namedPipe is true and loginTimeout is non-zero, the value of loginTimeout is used for the retry timeout when 'All pipe instances are busy' error messages are received while attempting to connect to the server. If namedPipe is true and loginTimeout is zero (the default), a value of 20 seconds is used for the named pipe retry timeout. (default - 0)
SocketTimeout	The amount of time to wait (in seconds) for network activity before timing out.Use with care! If a non zero value is supplied this must be greater than the maximum time that the server will take to answer any query. Once the timeout value is exceeded the network connection will be closed. This parameter may be useful for detecting dead network connections in a pooled environment.(default - 0)
NamedPipe	When set to true, named pipe communication is used to connect to the database instead of TCP/IP sockets. When the os.name system property starts with 'windows' (case-insensitive), named pipes (both local and remote) are accessed through the Windows filesystem by opening a RandomAccessFile to the path. When the SQL Server and the client are on the same machine, a named pipe will usually have better performance than TCP/IP sockets since the network layer is eliminated.
Ssl	Specifies if and how to use SSL for secure communication.(default - off)

	OpenLink ODBC Driver (Express Edition) User Guide	234
BatchSize	Controls how many statements are sent to the server in a batch. The actual batch is broken up into pieces this large that are sent separately.(default - 0[unlimited] for SQL Server)	S
UseCursors	Instructs the driver to use server side cursors instead of direct selects (AKA fireho cursors) for forward-only read-only result sets (with other types of result sets serv or client-side cursors are always used).(default - false)	ose er-
BufferMaxMemory	Controls the global buffer memory limit for all connections (in kilobytes). When t amount of buffered server response packets reaches this limit additional packets a buffered to disk; there is however one exception: each Statement gets to buffer at least '[bufferMinPackets]' to memory before this limit is enforced. This means that this limit can and will usually be exceeded.(default - 1024)	the re
BufferMinPackets	Controls the minimum number of packets per statement to buffer to memory. Each Statement will buffer at least this many packets before being forced to use a temporary file if the [bufferMaxMemory] is reached, to ensure good performance even when one Statement caches a very large amount of data.(default - 8)	h
UseLOBs	Controls whether large types (IMAGE and TEXT/NTEXT) should be mapped by default (when using getObject()) to LOBs. The default type constant returned is a controlled by this property: BLOB for IMAGE and CLOB for TEXT/NTEXT whetrue, LONGVARBINARY for IMAGE and LONGVARCHAR for TEXT/NTEXT, when false.(default - true)	ılso en Γ

As indicated above the paramters of the options and preferences tabs are not required for a basic connection:

Figure 10.22. SQLconfig6.png

ccxxxiv

-	Source Connection Options Preferences Test	
3	Row buffer size 60 GR Read only connect	tior
	Jet options	
	🗌 Drop catalog from meta calls 🛛 Drop schema from meta ca	alls
	□ No support of quoted identifier □ SQL statistic disabled	
	No support of search string escape	
	Patch of NULL size of SQL_CHAR 0	
20	Patch of NULL size of SQL_CHAR 0	

- *Row Buffer Size* This attribute specifies the number of records to be transported over the network in a single network hop. Values can range from 1 to 99.
- *Hide Login Dialog* Suppress the ODBC "Username" and "Password" login dialog box when interacting with your ODBC DSN from within an ODBC-compliant application.
- *Read Only connection* Specify whether the connection is to be read-only. Make sure the checkbox is unchecked to request a read/write connection.
- *Drop Catalog from Meta calls* Enable this option to have the catalog name not appear for tables, views and procedures when requesting database metadata.
- *Drop Schema from Meta calls* Enable this option to have the schema-name not appear for tables, views and procedures when requesting database metadata.
- *SQLStatistics disabled* Check this box to have SQLStatistics() return an empty resultset. Use this if the underlying database does not support retrieving statistics about a table (e.g. what indexes there are on it).
- *No support of quoted identifier* If it is set, the call SQLGetInfo for 'SQL_IDENTIFIER_QUOTE_CHAR' will return the space (" "). It can be used if DBMS doesn't support quoted SQL such as select * from "account"

- *No support of search string escape* If it is set, the call SQLGetInfo for 'SQL_LIKE_ESCAPE_CLAUSE' will return the space (" "). It can be used if DBMS doesn't support SQL escape patterns.
- *Patch of NULL size of SQL_CHAR* If set this option overrides the size of SQL_CHAR column type returned by the database with the value set in the text box (in bytes). With the default value of 0 the driver uses the size returned by the database.
- *SQL_DBMS Name* Manually override the SQLGetInfo (SQL_DBMS_NAME) response returned by the driver. This is known to be required for products like Microsoft InfoPath for which the return the value should be "SQL Server".

Figure 10	0.23. SQ	Lconfig7.png
-----------	----------	--------------

Initialization SQL Browse Cursor sensitivity Low Max rows override 0 Disable autocommit Disable rowset size limit Defer fetching of long data Multiple Active Statements Emulation	Data Source	e Connection	Options	Preferences	Test
Cursor sensitivity Low Max rows override 0 Disable autocommit Disable rowset size limit Defer fetching of long data Multiple Active Statements Emulation	Initializ	zation SQL			Browse
Max rows override 0 Max rows override 0 Disable autocommit Disable rowset size limit Defer fetching of long data Multiple Active Statements Emulation	Cursor	sensitivity	ow	•	
 Disable autocommit Disable rowset size limit Defer fetching of long data Multiple Active Statements Emulation 	Max ro	ws override 0			
 Disable autocommit Disable rowset size limit Defer fetching of long data Multiple Active Statements Emulation 					
Defer fetching of long data Multiple Active Statements Emulation		able autocommit	imit		
Multiple Active Statements Emulation		fer fetching of lon	a data		
		Itinle Active State	ig data		

- *Initialization SQL* Lets you specify a file containing SQL statements that will be run against the database upon connection, automatically.
- *Cursor Sensitivity* Enables or disables the row version cache used with dynamic cursors. When dynamic cursor sensitivity is set high, the Cursor Library calculates checksums for each row in the current rowset and compares these with the checksums (if any) already stored in the row version cache for the same rows when fetched previously. If the checksums differ for a row, the row has been updated since it was last fetched and the row status flag is set to SQL_ROW_UPDATED. The row version cache is then updated with the latest checksums for the rowset. From the user's point of view, the only visible difference between the two sensitivity settings is that a row status flag can never be set to SQL_ROW_UPDATED when the cursor sensitivity is low. (The row status is instead displayed as SQL_ROW_SUCCESS.) In all other respects, performance aside, the two settings are the same deleted rows don't appear in the rowset if their keys fall within the span of the rowset. If your application does not need to detect the row status SQL_ROW_UPDATED, you should leave the 'High Cursor Sensitivity' checkbox unchecked, as performance is improved. The calculation and comparison of checksums for each row fetched carries an overhead. If this option is enabled, the table oplrvc must have been created beforehand using the appropriate script for the target database.
- *MaxRows Override* Allows you to define a limit on the maximum number of rows to returned from a query. The default value of 0 means no limit.
- *Disable AutoCommit* Change the default commit behaviour of the OpenLink Lite Driver. The default mode is AutoCommit mode (box unchecked).
- *Disable Rowset Size Limit* Disable the limitation enforced by the cursor library. The limitation is enforced by default to prevent the Driver claiming all available memory in the event that a resultset is generated from an erroneous query is very large. The limit is normally never reached.
- *Defer fetching of long data* Defer fetching of LONG (BINARY, BLOB etc.) data unless explicitly requested in query. This provides significant performance increase when fields in query does not include LONG data fields.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.

Click on the 'Test Data Source' button to make a connection to the database to verify connectivity:

Figure 10.24. SQLconfig8.png

new ODBC Datasource will	be created with	the followin	ng configuration	n:
UserName: sa	verexpresseurc	UII .		
URLString: {ServerName=s	qlserver.examp	le.com;Porti	Number=1433;	DatabaseName=N
FetchBufferSize: 60				
NoLoginBox: No				
MaxRows: 0				
NoAutoCommit: No				
NoRowsetSizeLimit: No				
()			
	Test Dat	ta Source		
	Test Dat	ta Source	\supset	

Enter a vaild username and pasword for the database:

Figure 10.25. SQLconfig9.png

Identity	Connection	Options	Preferences	About
	DSN :	(File DSN	0	
Usernan	ne sa	1		
Passwor	d 💽	•		

A successful connection to the database has been made:

Figure 10.26. SQLsuccess.png



11.2 OpenLink ODBC Driver for SQL Server (Express Editon) for Windows

11.2.1 Installation

The OpenLink ODBCDriver for Microsoft SQLServer (Express Edition) is distributed as a Windows MSI installer. Simply double click on the installer 'ntl6esql.msi' to commence the installation.

Installer Welcome Dialog for the OpenLink ODBCDriver for Microsoft SQLServer(Express Edition):



Please read the software license agreement and accept before continuing your installation:

Figure 10.28. EEWinSQLServerScreen3i.png

You r	nust agree with the license agreement below to proceed.
0P	ENLINK SOFTWARE LICENSE AGREEMENT
TYP	E
Licer	ise for OpenLink Universal Data Access Driver Suite.
QUA	NTITY
One conn licen	or more copies of this product limited to 2 concurrent users, and 4 concurrent ections, maintained by the server based OpenLink License Manager. Additional se options shall be reflected in your registration key.
USE	
You ''Soft	an entity or a person) can make use of the software identified above (the ware'') in the quantity stated above if you meet the following conditions:
Oner	il ink Server Components (OpenLink Bequest Broker & OpenLink Database 💦 👱
	ccept the license agreement

Before installation, you will be prompted for a license file. If a license file already exists on the machine, then select the 'use exisiting file' option. A trial (try) or full (buy) license can be obtained by selecting the 'try and buy' option which loads OpenLink's online try and buy web page:

Figure 10.29. EEWinSQLServerScreen4i.png

🞲 OpenLink SQLServer ODBC Driver (Express Edition) Setup
Product License Select the folder containing the product license.
This product requires a product license for use, which the installer can automatically place in the correct location for you. If you already have a 'ee_sql_It.lic' license file click the 'Browse' button and locate the folder it is in.
C:\ Browse
Alternatively, click the 'Try & Buy' button to use your Web browser to request a license, if you don't have one yet.
I don't want to install a license file right now.
<pre></pre>

If you are using Nortons Anti-Virus Software, you may encouter this warning message. Choose the Allow the Entire Script once option:

Figure 10.30. EEWinSQLServerScreen5i.png

₿ 0	- Norton A	ntiVirus	XX
Р	Alert :	Malicious script detected	
		Object Windows Script Host Shell Object Activity Run	
		Your computer is halted and needs to do something about this script:	
	File	MsiExec.exe	
		What do you want to do?	
	Action	Allow the entire script once	
		ОК	

To obtain the trial license, you must be a registered user on the OpenLinkWeb site and login with your username (e-mail address) and password for that user. Click on the 'Shop' link to visit Openlink's online shop cart to purchase a full license, if required:

Figure 10.31. EEWinSQLServerScreen6i.png

🐸 OpenLink Product Download Wizard - Mozilla Firefox	
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>G</u> o <u>B</u> ookmarks <u>I</u> ools <u>H</u> elp	
🔶 - 🛶 - 🥰 🚔 💿 🏫 🗋 http://download.openlinksw.com/download/log	gin.vsp?release=6.0&lic=ee_sql_lt&wstype=W&os=i686-gener
🕼 Employee Center 🕼 Openlink Knowledgeb 🕼 OpenLink Software	Product Do 📋 OpenLink Product Do 📋 WebHome <
TWikiUsers < Main < TWiki UdaWinEeInstallConfigFireBird < Main < T	Wiki 📄 OpenLink Product Download Wizard
OPENLINK SOFTWARE	OpenLink
Universal Data Access Drivers (ODBC, JDBC, ADO) Down You have selected Single-Tier (Express Edition) ODBC Dri (32 Bit) (x86)	load ivers for Microsoft SQL Server (Release 6.0) fo
Try Single-Tier (Express Edition)	Buy Single-Tier (Express Edition)
To proceed you must login Email: Password: Sign-In Forgotten your password? Don't have an account? Register155	You can proceed directly to online sales with this product to purchase a full license. Shop
Go back to the start to <u>download more software.</u>	
© 2005 OpenLink Software	
Dope	

Click on the 'download license' button to immediatly obtain the license file and save it to your desktop. Alternatively, an auto-generated e-mail will be sent to your registered user's e-mail address with a link to your OpenLinkData Space (ODS), which contains all trial and full licenses in a Briefcase for download at a later date.

Figure 10.32. EEWinSQLServerScreen7i.png

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You will want to save the file to disk:

Figure 10.33. EEWinSQLServerScreen8i.png

Opening ee_sql_lt.	lic	×
You have chosen to op ee_sql_lt.lic which is a: IBM DB2 Lic from: http://download What should Firefox	en :ense Certificates I.openlinksw.com do with this file?	
Ogpen with Save to Disk	IBM(R) DB2(R) (default)	

Select the license file to be used for the installation:

.ook in: 📄 Desktop)	¥ 🗄
Cases Clutter Contacts for Goldmine Debian Documents DONE	email response ExpressEditionScreenShots Frank How to Installs Learning	New Licenses Other QA Testing temp TEMP LICENSE templates
Downloads	New DB versions	Virtuoso

Make sure that the path to where the license file is located is correct before selecting Next:

Figure 10.35. EEWinSQLServerScreen10i.png

OpenLink	SQLServer ODBC Driver (Express Edition) Setup
Product Lie Select the	e folder containing the product license.
[22] Install the	This product requires a product license for use, which the installer can automatically place in the correct location for you. If you already have a 'ee_sql_lt.lic' license file click the 'Browse' button and locate the folder it is in. license file from this folder:
C:\Docu	ments and Settings\Emma\Desktop\ Browse
Alternativ to reques	ely, click the 'Try & Buy' button to use your Web browser Try & Buy t a license, if you don't have one yet.
🗌 l don't	want to install a license file right now.
	< Back Next > Cancel

Choose to perform a custom, typical, or complete installation of the driver:

Figure 10.36. EEWinSQLServerScreen11i.png

🥵 OpenLink SQLSer	ver ODBC Driver (Express Edition) Setup
Select Installation Select the desired	Type installation type.
P	Typical Installs the most common program features. This option is recommended for most users.
	Complete All program features will be installed. This option is recommended for the best performance.
	Custom Choose which application features you want installed and where they will be installed. This option is recommended for advanced users.
	< Back Next > Cancel

With a custom installation, you can decide the directory where the installation will reside:

Figure 10.37. EEWinSQLSErverCustom1.png

Select the features to be installed:

Figure 10.38. EEWinSQLSErverCustom2.png

Click the install button to begin installation of the components:

Figure 10.39. EEWinSQLSErverCustom3.png

Installation in progress:

Figure 10.40. EEWinSQLServerScreen13i.png
🕼 OpenLink SQLServer ODBC Driver (Express Edition) Setup
Installing OpenLink SQLServer ODBC Driver (Express Edition)
Please wait while the installer installs OpenLink SQLServer ODBC Driver (Express Edition). This may take several minutes.
Status:
Cancel

The software installation is complete and ready for use:

Figure 10.41. EEWinSQLServerScreen14i.png



11.2.2 Configuration

To configure an ODBCDSN, run the ODBCAdministrator located in the Administrative Tools section of the Control Panel:

Figure 10.42. EEWinSQLServerScreen1c.png



From either the User or System DSN tab, click on the Add button:

Figure 10.43. EEWinSQLServerScreen2c.png

🗿 ODBC Dat	ta Source Administ	rator	? 🛛
User DSN	System DSN File DSN	Drivers Tracing Con	nnection Pooling About
Name	a Sources:	Driver	Add
Access N AIX 32Bit I AIX32bit0	ative DSN PRS91 DBC	Microsoft Access Driver OpenLink Generic ODB OpenLink Generic ODB	B Remove
AIX64bitO BPETERS	DBC VIRTUOSO NATIVE	OpenLink Generic ODB OpenLink Virtuoso (4.5)	B Configure
Case Test CaseTest DB2Lite F	0	OpenLink Lite for Inform OpenLink Lite for Postg OpenLink Lite for DB21	n g f
dyn226_oi	ICREATION	OpenLink Lite for Oracle OpenLink Generic ODB	ι ₽ <mark>₩</mark>
<u> </u>			
	An ODBC System data s the indicated data provid	source stores information a der. A System data sourc	about how to connect to ce is visible to all users
	on this machine, includir	ng NT services.	
	ОК	Cancel	Apply Help

Select the OpenLinkSQLServer ODBCDriver [Express Edition][6.0] from the list presented:

Figure 10.44. EEWinSQLServerScreen3c.png

Create New Data Source		×
	Select a driver for which you want to set up a data source Name OpenLink Lite for Progress 9.1d [6.0] OpenLink Lite for SQL Server (TDS) (32 Bit) OpenLink Lite for SQL Server (TDS) (32 Bit) (Unicode) OpenLink Lite for SQL Server (Unicode) [6.0] OpenLink Lite for SQL Server (6.0] OpenLink SQLServer ODBC Driver (Express Edition) (U OpenLink SQLServer ODBC Driver (Express Edition) (E OpenLink Virtuoso (4.5) SQL Server	

In the Data Source tab, select a suitable DSN name and optional description for the Data Source to be created:

Figure 10.45. EEWinSQLServerScreen4c.png

OpenLink Single Tier D	SN Configuration	×
	This wizard will help you create an ODBC data source that you can use connect to a remote Database. What name do you want to use to refer to the data source? Name: How do you want to describe the data source? Description:	to

The Connection tab requests the minimum parameters required to make a connection to the target database:

Figure 10.46. EEWinSQL	ServerScreen5c.pr	ng	
OpenLink Single Tier D	SN Configuration	ח	
	Which server do yo ServerType Host Port	u want to connect to? MSSQL localhost 1433 Northwind	· · · · · · · · · · · · · · · · · · ·
	Connect now to Login ID Password:	o verify that all settings are correct.	Advanced
		< Back Next >	Cancel

- Server Type : This parameter should be set to MSSQL, which can be selected from the drop down list box.
- *Host* : This is the fully qualified hostname, or IP address, of the machine hosting the DBMS you wish to access, e.g., dbms-server.example.com, or 192.168.155.123. Any hostname which will be resolved by your local DNS is acceptable.
- Port : This is the port that SQL Server is listening on
- Database : This is the SQL Server database to which you want to connect

- Login ID : This is a valid user on for the SQL Server Database
- Password : This is a valid password on for the SQL Server Database

Click next to verify that all settings are correct or uncheck the check box to delay testing to a later stage.

The advanced button displays additional, optional parameters that can be configured:

Figure 10.47. EEWinSQLSErverAdvanced.png

Table 10.2.	
Tds	The version of TDS to be used.(default - '8.0')
Cachemetadata	When used with prepareSQL=3, setting this property to true will cause the driver to cache column meta data for SELECT statements. Use with care.(default - false)
Charset	Very important setting, determines the byte value to character mapping for CHAR/VARCHAR/TEXT values. Applies for characters from the extended set (codes 128-255). For NCHAR/NVARCHAR/NTEXT values, does not have any effect, since these are stored using Unicode. (default - the character set the server was installed with)
Language	Applies for characters from the extended set (codes 128-255). For NCHAR/NVARCHAR/NTEXT values, does not have any effect since these are stored using Unicode. (default - the character set the server was installed with)
Domain	Specifies the Windows domain to authenticate in. If present and the user name and password are provided, it uses Windows (NTLM) authentication instead of the usual SQL Server authentication (i.e., the user and password provided are the domain user and password). This allows non-Windows clients to log in to servers, which are only configured to accept Windows authentication.
Instance	Named instance to connect to. SQL Server can run multiple so-called 'named instances' (i.e., different server instances, running on different TCP ports) on the same machine. When using Microsoft tools, selecting one of these instances is made by using '[host_name]\[instance_name]' instead of the usual '[host_name]'. You will have to split the two and use the instance name as a property.
AppName	Application name. No practical use; it's displayed by Enterprise Manager or Profiler associated with the connection.
ProgName	Client library name. No practical use; it's displayed by Enterprise Manager or Profiler associated with the connection.
Wsid	Workstation ID. No practical use; it's displayed by Enterprise Manager or Profiler associated with the connection. (default - the client host name)
MacAddress	Network interface card MAC address. (default - '00000000000')
SendStringParametersAsUnicode	Determines whether string parameters are sent to the SQL Server database in Unicode or in the default character encoding of the database. (default - true)
LastUpdateCount	If true, only the last update count will be returned by executeUpdate(). This is useful in case you are updating or inserting into tables that have triggers (such as replicated tables); there's no way to make the difference between an update count returned by a trigger and the actual update count, but the actual update count is always the last, as the triggers execute first. If false, all update counts are returned; use getMoreResults() to loop through them. (default - true)
PrepareSQL	This parameter specifies the mechanism used for Prepared Statements. (default - 3 for SQL Server)
PacketSize	The network packet size (a multiple of 512). (default - 4096 for TDS 7.0/8.0; 512 for TDS 4.2/5.0)
TcpNoDelay	True to enable TCP_NODELAY on the socket; false to disable it. (default - true)
LobBuffer	The amount of LOB data to buffer in memory before caching to disk. The value is in bytes for Blob data and chars for Clob data. (default - 32768)
MaxStatements	The number of statement prepares each connection should cache. A value of 0 will disable statement caching.(default - 500)

ccxlviii
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LoginTimeout	The amount of time to wait (in seconds) for a successful connection before timing out. If namedPipe is true and loginTimeout is non-zero, the value of loginTimeout is used for the retry timeout when 'All pipe instances are busy' error messages are received while attempting to connect to the server. If namedPipe is true and loginTimeout is zero (the default), a value of 20 seconds is used for the named pipe retry timeout. (default - 0)
SocketTimeout	The amount of time to wait (in seconds) for network activity before timing out. Use with care! If a non zero value is supplied, this must be greater than the maximum time that the server will take to answer any query. Once the timeout value is exceeded, the network connection will be closed. This parameter may be useful for detecting dead network connections in a pooled environment. (default - 0)
NamedPipe	 When set to true, named pipe communication is used to connect to the database instead of TCP/IP sockets. When the os.name system property starts with 'windows' (case-insensitive), named pipes (both local and remote) are accessed through the Windows filesystem by opening a RandomAccessFile to the path. When the SQL Server and the client are on the same machine, a named pipe will usually have better performance than TCP/IP sockets since the network layer is eliminated.
Ssl	Specifies if and how to use SSL for secure communication. (default - off)
BatchSize	Controls how many statements are sent to the server in a batch. The actual batch is broken up into pieces this large that are sent separately.(default - 0[unlimited] for SQL Server)
UseCursors	Instructs the driver to use server side cursors instead of direct selects (AKA firehose cursors) for forward-only read-only result sets (with other types of result sets server- or client-side cursors are always used). (default - false)
BufferMaxMemory	Controls the global buffer memory limit for all connections (in kilobytes). When the amount of buffered server response packets reaches this limit, additional packets are buffered to disk; there is however one exception: each Statement gets to buffer at least '[bufferMinPackets]' to memory before this limit is enforced. This means that this limit can and will usually be exceeded. (default - 1024)
BufferMinPackets	Controls the minimum number of packets per statement to buffer to memory. Each Statement will buffer at least this many packets before being forced to use a temporary file if the [bufferMaxMemory] is reached, to ensure good performance even when one Statement caches a very large amount of data. (default - 8)
UseLOBs	Controls whether large types (IMAGE and TEXT/NTEXT) should be mapped by default (when using getObject()) to LOBs. The default type constant returned is also controlled by this property: BLOB for IMAGE and CLOB for TEXT/NTEXT when true, LONGVARBINARY for IMAGE and LONGVARCHAR for TEXT/NTEXT when false. (default - true)

As indicated above, the parameters on the options and preferences tabs are not required for a basic connection.

Figure 10.48. EEWinSQLServerScreen6c.png

OpenLink Single Tier D	SN Configuration Additional parameters: Drop Catalog name from DatabaseMetaData calls Drop Schema name from DatabaseMetaData calls Return an empty ResultSet for SQLStatistics Disable support of quoted identifier Disable support of search pattern escape
OPENLINK SOFTWARE	< Back Next > Cancel

- *Drop Catalog name from DatabaseMetaData calls* Enable this option to have the catalog name not appear for tables, views, and procedures when requesting database meta-data.
- *Drop Schema name from DatabaseMetaData calls* Enable this option to have the schema-name not appear for tables, views, and procedures when requesting database meta-data.
- *Return an empty ResultSet for SQLStatistics* Check this box to have SQLStatistics() return an empty resultset. Use this if the underlying database does not support retrieving statistics about a table (e.g., what indexes there are on it).
- *Disable support of quoted identifier* If it is set, the call SQLGetInfo for 'SQL_IDENTIFIER_QUOTE_CHAR' will return the space (" "). It can be used if DBMS does not support quoted SQL, e.g., select * from "account."
- *Disable support of search pattern escape* If it is set, the call SQLGetInfo for 'SQL_LIKE_ESCAPE_CLAUSE' will return the space (" "). It can be used if DBMS does not support SQL escape patterns
- *Patch of NULL size of SQL_CHAR* If set, this option overrides the size of SQL_CHAR column type returned by the database with the value set in the text box (in bytes). With the default value of 0, the driver uses the size returned by the database.

Figure 10.49. EEWinSQLServerScreen7c.png

OpenLink Single Tier D	SN Configuration	×
	Additional connect parameters: Read-only connection Defer fetching of long data Disable interactive login Row buffer size: 60 Max rows override: 0 Initial SQL: Dynamic cursor sensitivity: Low Enable logging to the log file:	
	< Back Next > Cancel	

- *Read Only connection* Specify whether the connection is to be "Read-only". Make sure the checkbox is unchecked to request a "Read/Write" connection.
- *Disable interactive login* Suppress the ODBC "Username" and "Password" login dialog box when interacting with your ODBC DSN from within an ODBC compliant application.
- *Row Buffer Size* This attribute specifies the number of records to be transported over the network in a single network hop. Values can range from 1 to 99.
- *Max Rows Override* Allows you to define a limit on the maximum number of rows to be returned from a query. The default value of 0 means no limit.
- *Initial SQL* Lets you specify a file containing SQL statements that will be automatically run against the database upon connection.
- Dynamic Cursor Sensitivity Enables or disables the row version cache used with dynamic cursors. When dynamic cursor sensitivity is set high, the Cursor Library calculates checksums for each row in the current rowset and compares these with the checksums (if any) already stored in the row version cache for the same rows when fetched previously. If the checksums differ for a row, the row has been updated since it was last fetched, and the row status flag is set to SQL_ROW_UPDATED. The row version cache is then updated with the latest checksums for the rowset. From the user's point of view, the only visible difference between the two sensitivity settings is that a row status flag can never be set to SQL_ROW_UPDATED, when the cursor sensitivity is low. (The row status is instead displayed as SQL_ROW_SUCCESS.) In all other respects, performance aside, the two settings are the same deleted rows do not appear in the rowset, if their keys fall within the span of the rowset. If your application does not need to detect the row status SQL_ROW_UPDATED, you should leave the 'High Cursor Sensitivity' checkbox unchecked, as performance is improved. The calculation and comparison of checksums for each row fetched carries an overhead. If this option is enabled, the table oplrvc must have been created beforehand using the appropriate OpenLink script for the target database.
- *Enable logging to the log file:* Specifies the full path to a text file. If the associated checkbox is checked, and a file is passed, the driver will log auto-generate a clientside ODBC trace.

Figure 10.50. EEWinSQLServerScreen8c.png

)penLink Single Tier [DSN Configuration
E AN AL	Enable Microsoft Jet engine options
A 40 00	Disable Autocommit
1 9 9 9 0 9 m	🗖 Disable rowset size limit
Charles Cas	Multiple Active Statements Emulation
	SQL_DBMS_NAME:
OPENLINK SOFTWARE	
	< Back Next > Cancel

- *Disable AutoCommit* Change the default commit behaviour of the OpenLink Lite Driver. The default mode is AutoCommit mode (box unchecked).
- *Disable Rowset Size Limit* Disable the limitation enforced by the cursor library. The limitation is enforced by default to prevent the driver claiming all available memory in the event that a resultset is generated from an erroneous query is very large. The limit is normally never reached.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.
- *SQL_DBMS Name* Manually override the SQLGetInfo(SQL_DBMS_NAME) response returned by the driver. This is required for products like Microsoft InfoPath for which the return the value must be "SQL Server".

(AN)	A new ODBC Datasource will be created with the following configuration:	
	DpenLink SQLServer Driver (Express Edition) Version: 1.0 File: C:\Program Files\OpenLink Software\UDA\bin\ntl5eesql.dll Data Source Name: SQLee Data Source Description: URL string: (ServerType=1;ServerName=oplusbench1;PortNumber=1 Login ID: sa Drop Catalog name from DatabaseMetaData calls: No Drop Schema name from DatabaseMetaData calls: No Return an empty ResultSet for SQLStatistics: No Disable support of quoted identifier: No Disable support of search pattern escape: No Patch null size of SQLChar on:: 4096	< III III III III III III IIII IIII II
S OFT WARE	Test Data Source Test XA Connection	

Figure 10.51. EEWinSQLServerScreen9c.png

Click on the Test Data Sourcebutton to verify that a successful connection can be made to the database.

Figure 10.52. EEWinSQLServerScreen10c.png

OpenLink Single Tier D	SN Configuration	×
Cart -	A new ODBC Datasource will be created with the following configuration:	
	OpenLink SQLServer Driver (Express Edition) Version: 1.0 File: C:\Program Files\OpenLink Software\UDA\bin\ntl5eesql.dll	~
	Running connectivity tests Attempting connection Connection established Verifying option settings Actual database is (Microsoft SQL Server) Disconnecting from server TESTS COMPLETED SUCCESSFULLY!	
OPENLINK SOFTWARE	Test Data Source Test XA Connection	
	< Back Finish Cance	el

When you click finish, you will go back to the ODBCData Source Administrator, and you should see the new DSN in the list of available DSN's:



Name	Driver	Canadia ODP	Add
SOL8-32bitODBC	OpenLink C	aeneric ODB	Remove
SOLamd32bitODBC	OpenLink 0 OpenLink 0	ieneric ODB	Configure
SQLee	OpenLink 9	QLServer 0	
sglserver lite	OpenLink L	ite for SQL (
SQLSERVER NATIVE	SQL Server	r 🚽	
SYB12LA	OpenLink L	ite for SQL 🗧	
Tamer	OpenLink 6	aeneric ODB 🥃	
TamerError	OpenLink 6	Seneric ODB	
)		
An ODBC Syste	m data source stores i	nformation about	t how to connect to
the indicated da	ta provider. A System	n data source is	visible to all users

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Table of Contents

- OpenLink ODBC Driver for Sybase (Express Editon) for Mac OS X
 - ♦ Installation Guide
 - ♦ Configuration
- OpenLink ODBC Driver for Sybase (Express Editon) for Windows
 - ♦ Installation
 - Configuration

12.1 OpenLink ODBC Driver for Sybase (Express Editon) for Mac OS X

12.1.1 Installation Guide

The OpenLink ODBC Driver for Sybase (Express Edition is a distributed as a Disk Image (DMG) file. Simply double click on the disk image 'mul6esql.dmg' to extract the installer mpkg file:



Double-click on the mpkg file to run the installer and following the on-screen instruction as indicated below to complete the installation:

Figure 11.2. SybaseInstall2.png

Installer Welcome Dialog for the OpenLink ODBC Driver for SQL Server (Express Edition):

Figure 11.3. SybaseInstall4.png



Please review the readme file for installation requirements and known issues:

	Important Information	
Introduction	Release 6.0, April 2006	
Read Me	This installation program will install the following Universal Binary	
License	Format components:	
Select Destination	OpenLink Express Edition for SQLServer OpenLink iODBC Driver Manager	
Installation Type	OpenLink iODBC Administrator	
Install	OpenLink iODBC Sample Program	
Finish Up	Minimum System Requirements Mac OS X 10.3.9 or above 	
	Known ODBC-Compliant Application Issues	
	REALbasic variants through Version 4.0 were not fully ODBC-	

Please read the software license agreement before continuing your installation:

Figure 11.5. SybaseInstall6.png



Figure 11.6. SybaseInstall7.png

Figure 11.4. SybaseInstall5.png

Click Agree to continue or click Disagree to cancel the installation.

Select destination volume for driver installation:

	Select a Destination
Introduction	Select a destination volume to install the OpenLink Express Edition driver for SQLServer software.
🖲 Read Me	
🖯 License	
Select Destination	
Installation Type	Macintosh HD
Install	74.4GB (59.9GB Free)
Finish Up	Installing this software requires 9.6MB of space.
	You have chosen to install this software on the volume "Macintosh HD."
	Go Back Continu

Choose to perform a custom or default installation of the driver:

Figure 11.8. SybaseInstall9.png

E	asy Install on "Macintosh HD"
Introduction	
🖯 Read Me	Click Upgrade to perform a basic installation of
⊖ License	this software package on the volume "Macintosh HD."
⊖ Select Destination	
O Installation Type	
Install	
Finish Up	

If you chose the custom option select which of the components below are to be installed:

Introduction IODBC Driver Manager and SDK 4.81 Read Me IoDBC Frameworks (runtime) Install 1.11 IoDBC Software Development Kit Install 2.08 Select Destination IoDBC Samples and Sources Install 2.91 Installation Type Install 180 Install Express Edition driver for SQLServer Install 4.81 Install Online Documentation (Single Tier) Install 8.01		Package Name	Action	Size
Finish Up	 Introduction Read Me License Select Destination Installation Type Install 	 iODBC Driver Manager and SDK iODBC Frameworks (runtime) iODBC Software Development Kit OpenLink iODBC Administrator iODBC Samples and Sources License Manager Express Edition driver for SQLServer Online Documentation (Single Tier) 	Install Install Install Install Install Install Install	4.8MB 1.1MB 208KB 2.9MB 652KB 180KB 4.8MB 8.0KB
Space Required: 9.8MB Remaining: 59.9GB	Finish Up	Space Required: 9.8MB Remai	ning: 59.9GB	

The software must be installed as a user with Administrative privileges on the machine:

Figure 11.9. SybaseInstallExtra.png

Figure 11.10. SybaseInstall1	0.png
*	Authenticate
Installer re	equires that you type your password.
Name:	OpenLink
Password:	
Details	
(?)	Cancel OK

After the driver has been installed you will be prompted for a license file. If a license file already exists on the machine then select the 'use exisiting file' option. A trial (try) or full (buy) license can be obtain by selecting the 'try and buy' option which loads our online try-and-buy web page:

Figure 11.11. SybaseInstall11.png

1	Select license file
Y	The installation requires a license file (ee_sql_lt.lic) for operation.
	Press the 'Try or Buy' button to request a license using your browser. You will receive a license as an email attachement.
	Press the 'Use existing License' button if you have already recived a license.
	On the next dialog, press the 'Choose' button to select the license file for use or 'Cancel' to continue without one.
	Try or Buy License

To obtain the trial license you must be a registered user on the OpenLink Web site and login with the username (e-mail address) and password for that user. Click on the 'Shop' link to visit our online shop cart to purchases a full license if required:

Figure 11.12. SybaseInstall12.png



Universal Data Access Drivers Download

You have selected Single-Tier (Express Edition) ODBC Drivers for Microsoft SQL Server (Release 6.0 Bit) (PowerPC)

Try Single-Tier (Express Edition)	Buy Single-Tier (Express Edition)
Welcome back Ms Emma Roth Check my Details Next > Change Login	You can proceed directly to online sale this product to purchase a full license.
158 158	

Go back to the start to download more software.

© 2005 OpenLink Software

Click on the 'download license' button to obtain the license file immediately and save to your desktop. Alternatively an auto e-mail will be sent to the registered users e-mail address with a link to their OpenLink Data Space (ODS) where all trial and full license files will be stored in the Briefcase for download at a later date.

Figure 11.13. SybaseInstall13.png



Select the license file to be used for the installation:

Figure 11.14. SybaseInstall14.png

		Desktop	•	Q search
Network		bench_user.log	DbVisualizer ee_sql_lt.lic	
OpenLink 🔺		Documents ee_ora_lt.lic ee sgl lt.lic	OSXvnc Picture 1 Picture 2	
Desktop	^	install s captures ► installation images ►	Picture 3	
root root		 □ Library □ License 	Picture 5 Picture 6	Name ee_sql_lt.lic
Applications		☐ Log Files ► ☐ Magazines ►	Picture 7	Kind Document
Documents	I	🛛 📁 Movies 🔹 🕨	II 💽 Picture 9	1 1:11 PM

Installation is complete:

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12.1.2 Configuration

To configure an ODBC DSN, run the OpenLink iODBC Administrator located in the /Applications/iODBC folder:

Figure 11.16. ODBCadmin.png



Click on the add button to Choose the ODBC Driver the DSN should be created for:

Figure 11.17. SybaseConfig1.png

lame	Description	Driver	Add
ocal Virtuoso	Virtuoso database	OpenLink Virtuc	
ocal Virtuoso Demo	Virtuoso Demo database	OpenLink Virtuc	Remove
1ySQLdsnMacOSX	-	OpenLink MySQ	Configura
DracleExpress	-	OpenLink Oracle	Configure
ostgreSQLdsnMacOSX	<u>~</u>	OpenLink Postg	
QLexpress	.	OpenLink SQLSe	Test
QLserverMacOSX	-	OpenLink SQL S	
/irtUDA	-	OpenLink Virtuc	
)+	1
An ODBC Syste	m data source stores information	about how to connect	to the indicated
machine.	A system data source is visible to	an users and processe	is on this

Choose the OpenLink Sybase Driver (Express Edition) v6.0 from the list of available drivers:

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Choose an ODBC Driver

	OpenLink MySQL Lite Driver OpenLink Oracle Driver (Express Edition) v6.0 OpenLink Oracle Driver (Express Edition)(Unicode) v6.0 OpenLink PostgreSQL Lite Driver (Unicode) v6.0 OpenLink PostgreSQL Lite Driver v6.0 OpenLink SQL Server Lite Driver (Unicode) v6.0	
A A	OpenLink SQL Server Lite Driver V6.0	
	OpenLink SQLServer Driver (Express Edition)(Unicode) v6.0 OpenLink Virtuoso (4.0)	Ļ
	· () +	

In the Data Source tab, select a suitable DSN name and optional description for the Data Source to be created:

Figure 11.19.	SybaseConfig3.png	
	OpenLink ODBC for SQLServer (Express	Edition) Setup Wizard

	Data Source	Connection	Options	Preferences	Test
	What nam DSN How do y Descrip	e do you want Syb ou want to deso tion	to use to re aseEE cribe this da	fer to this data ta source ?	source ?
Cancel	Finish			Go Bac	Continue

The Connection Tab request the minimum paramters required to make a connection to the target database: Figure 11.20. SybaseConfig4.png

(Data Source	Connection	Options	Preferences	Test	
	Which ser	ver do you war	nt connect to	o?		
		Host	sybaseho	st.usnet.priva	ate 🤇	•
12		Port	4200			
TC		Database	pubs			
ODEC		User name				
				(Advanced	

Host: This is the fully qualified hostname, or IP address, of the machine hosting the DBMS you wish to access, e.g., dbms-server.example.com, or 192.168.155.123. Any hostname which will be resolved by your local DNS is acceptable.

Port: This is the port on which Sybase is listening.

Database: This is the Sybase database to which you want to connect.

User Name: This is a valid user for the Sybase database.

The advanced button displays additional optional parameters that can be configured:

	Advanced connection	properties		
Use	Attribute	Value	-	
☑	Tds	5.0		Å
	Cachemetadata Charset Language Domain	false		
	Instance		1	Ŧ
ne vers	sion of TDS to be used.(default – '8.0')			
		Cancel Ol	k)

Figure	11.21.	Syba	seCor	fig5.	nng
inguio	11.41.	D,00	100001	mgo.	ping

Table 11.1.	
Tds	The version of TDS to be used.(default - '8.0')
Cachemetadata	When used with prepareSQL=3, setting this property to true will cause the driver to cache column meta data for SELECT statements. Use with care.(default - false)
Charset	A very important setting; this determines the byte value to character mapping for CHAR/VARCHAR/TEXT values. Applies for characters from the extended set (codes 128-255). For NCHAR/NVARCHAR/NTEXT values doesn't have any effect since these are stored using Unicode. (By default set to the character set with which

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	the server was installed.)
Language	Applies for characters from the extended set (codes 128-255). For NCHAR/NVARCHAR/NTEXT values doesn't have any effect since these are stored using Unicode. (By default set to the character set with which the server was installed.)
Domain	Specifies the Windows domain in which to authenticate. If present and the user name and password are provided, it uses Windows (NTLM) authentication instead of the usual SQL Server authentication (i.e. the user and password provided are the domain user and password). This allows non-Windows clients to log in to servers which are only configured to accept Windoes authentication.
Instance	Named instance to connect to. Sybase can run multiple so-called 'named instances' (i.e. different server instances, running on different TCP ports) on the same machine. When using Microsoft tools, selecting one of these instances is made by using '[host_name]\[instance_name]' instead of the usual '[host_name]'. You will have to split the two and use the instance name as a property.
AppName	Application name. Of little practical use, it is displayed by Enterprise Manager or Profiler associated with the connection.
ProgName	Client library name. Of little practical use, it is displayed by Enterprise Manager or Profiler associated with the connection.
Wsid	Workstation ID. Of little practical use, it is displayed by Enterprise Manager or Profiler associated with the connection.(default - the client host name)
MacAddress	Network interface card MAC address.(default - '00000000000')
SendStringParametersAsUnicode	Determines whether string parameters are sent to the SQL Server database in Unicode or in the default character encoding of the database.(default - true)
LastUpdateCount	If true only the last update count will be returned by executeUpdate(). This is useful in case you are updating or inserting into tables that have triggers (such as replicated tables); there's no way to make the difference between an update count returned by a trigger and the actual update count but the actual update count is always the last as the triggers execute first. If false all update counts are returned; use getMoreResults() to loop through them. (default - true)
PrepareSQL	This parameter specifies the mechanism used for Prepared Statements.(default - 3 for SQL Server)
PacketSize	The network packet size (a multiple of 512).(default - 4096 for TDS 7.0/8.0; 512 for TDS 4.2/5.0)
TcpNoDelay	true to enable TCP_NODELAY on the socket; false to disable it.(default - true)
LobBuffer	The amount of LOB data to buffer in memory before caching to disk. The value is in bytes for Blob data and chars for Clob data. (By default, 32768)
MaxStatements	The number of statement prepares each connection should cache. A value of 0 will disable statement caching.(default - 500)
LoginTimeout	The amount of time to wait (in seconds) for a successful connection before timing out. If namedPipe is true and loginTimeout is non-zero, the value of loginTimeout is used for the retry timeout when 'All pipe instances are busy' error messages are received while attempting to connect to the server. If namedPipe is true and loginTimeout is zero (the default), a value of 20 seconds is used for the named pipe retry timeout. (default - 0)
SocketTimeout	The amount of time to wait (in seconds) for network activity before timing out. Use with care! If a non-zero value is supplied this must be greater than the maximum time that the server will take to answer any query. Once the timeout value is exceeded the network connection will be closed. This parameter may be useful for detecting dead network connections in a pooled environment. (By default, 0.)
NamedPipe	When set to true, named pipe communication is used to connect to the database instead of TCP/IP sockets. When the os.name system property starts with 'windows' (case-insensitive), named pipes (both local and remote) are accessed through the Windows filesystem by opening a RandomAccessFile to the path. When the SQL Server and the client are on the same machine, a named pipe will usually have better performance than TCP/IP sockets since the network layer is eliminated.

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Specifies if and how to use SSL for secure communication.(default - off)	
Controls how many statements are sent to the server in a batch. The actual batch is broken up into pieces this large that are sent separately. (By default, 0 (unlimited) SQL Server)	is) for
Instructs the driver to use server-side cursors instead of direct selects (AKA fireho cursors) for forward-only read-only result sets (with other types of result sets serve or client-side cursors are always used). (By default, false.)	ose /er-
Controls the global buffer memory limit for all connections (in kilobytes). When amount of buffered server response packets reaches this limit additional packets a buffered to disk; there is however one exception: each Statement gets to buffer at least '[bufferMinPackets]' to memory before this limit is enforced. This means that this limit can and will usually be exceeded. (By default, 1024.)	the tre
Controls the minimum number of packets per statement to buffer to memory. Eac Statement will buffer at least this many packets before being forced to use a temporary file if the [bufferMaxMemory] is reached, to ensure good performance even when one Statement caches a very large amount of data. (By default, 8.)	:h
Controls whether large types (IMAGE and TEXT/NTEXT) should be mapped by default (when using getObject()) to LOBs. The default type constant returned is a controlled by this property: BLOB for IMAGE and CLOB for TEXT/NTEXT wh true, LONGVARBINARY for IMAGE and LONGVARCHAR for TEXT/NTEXT when false. (By default, true.)	llso ien T
	OpenLink ODBC Driver (Express Edition) User Guide Specifies if and how to use SSL for secure communication.(default - off) Controls how many statements are sent to the server in a batch. The actual batch is broken up into pieces this large that are sent separately. (By default, 0 (unlimited) SQL Server) Instructs the driver to use server-side cursors instead of direct selects (AKA firefactursors) for forward-only read-only result sets (with other types of result sets server) Controls the global buffer memory limit for all connections (in kilobytes). When amount of buffered server response packets reaches this limit additional packets a buffered to disk; there is however one exception: each Statement gets to buffer at least '[bufferMinPackets]' to memory before this limit is enforced. This means that this limit can and will usually be exceeded. (By default, 1024.) Controls the minimum number of packets per statement to buffer to memory. Each Statement will buffer at least this many packets before being forced to use a temporary file if the [bufferMaxMemory] is reached, to ensure good performance even when one Statement caches a very large amount of data. (By default, 8.) Controls whether large types (IMAGE and TEXT/NTEXT) should be mapped by default (when using getObject()) to LOBs. The default type constant returned is a controlled by this property: BLOB for IMAGE and CLOB for TEXT/NTEXT wf true, LONGVARBINARY for IMAGE and LONGVARCHAR for TEXT/NTEXT when false. (By default, true.)

As indicated above the paramters of the options and preferences tabs are not required for a basic connection:

Figure 11.22. SybaseConfig6.png

(Data Source Connection Options Preferences Test
	Row buffer size 60 Evador Row buffer size 60 Read only connection
17.6	Jet options
	 Drop catalog from meta calls Drop schema from meta calls No support of quoted identifier SQL statistic disabled
L	No support of search string escape
ODEC	Patch of NULL SIZE OF SQL_CHAR 0
S. P. P.	SQL DBMS name

- *Row Buffer Size* This attribute specifies the number of records to be transported over the network in a single network hop. Values can range from 1 to 99.
- *Hide Login Dialog* Suppress the ODBC "Username" and "Password" login dialog box when interacting with your ODBC DSN from within an ODBC compliant application.
- *Read Only connection* Specify whether the connection is to be read-only. Make sure the checkbox is unchecked to request a read/write connection.
- *Drop Catalog from Meta calls* Enable this option to have the catalog name not appear for tables, views and procedures when requesting database metadata.
- Drop Schema from Meta calls Enable this option to have the schema-name not appear for tables, views and procedures when requesting database metadata.
- *SQLStatistics disabled* Check this box to have SQLStatistics() return an empty resultset. Use this if the underlying database does not support retrieving statistics about a table (e.g. what indexes there are on it).

- *No support of quoted identifier* If it is set, the call SQLGetInfo for 'SQL_IDENTIFIER_QUOTE_CHAR' will return the space (" "). It can be used if DBMS doesn't support quoted SQL such as select * from "account"
- *No support of search string escape* If it is set, the call SQLGetInfo for 'SQL_LIKE_ESCAPE_CLAUSE' will return the space (" "). It can be used if DBMS doesn't support SQL escape patterns
- *Patch of NULL size of SQL_CHAR* If set this option overrides the size of SQL_CHAR column type returned by the database with the value set in the text box (in bytes). With the default value of 0 the driver uses the size returned by the database.
- *SQL_DBMS Name* Manually override the SQLGetInfo (SQL_DBMS_NAME) response returned by the driver. This is known to be required for products like Microsoft InfoPath for which the return the value should be "SQL Server".

Figure 11.23. SybaseConfig7.png

	Data Source	Connection	Options	Preferences	Test	
	Initializat	on SQL				Browse
2	Cursor se	nsitivity	.ow	•		
	Max rows	override 0				
TC	Disabl	e autocommit				
	🗌 Disabl	e rowset size	limit			
	🗹 Defer	fetching of lor	ig data			
DDEC	📃 Multip	le Active State	ments Emula	ation		

- *Initialization SQL* Lets you specify a file containing SQL statements that will be run against the database upon connection, automatically.
- *Cursor Sensitivity* Enables or disables the row version cache used with dynamic cursors. When dynamic cursor sensitivity is set high, the Cursor Library calculates checksums for each row in the current rowset and compares these with the checksums (if any) already stored in the row version cache for the same rows when fetched previously. If the checksums differ for a row, the row has been updated since it was last fetched and the row status flag is set to SQL_ROW_UPDATED. The row version cache is then updated with the latest checksums for the rowset. From the user's point of view, the only visible difference between the two sensitivity settings is that a row status flag can never be set to SQL_ROW_UPDATED when the cursor sensitivity is low. (The row status is instead displayed as SQL_ROW_SUCCESS.) In all other respects, performance aside, the two settings are the same deleted rows don't appear in the rowset if their keys fall within the span of the rowset. If your application does not need to detect the row status SQL_ROW_UPDATED, you should leave the 'High Cursor Sensitivity' checkbox unchecked, as performance is improved. The calculation and comparison of checksums for each row fetched carries an overhead. If this option is enabled, the table oplrvc must have been created beforehand using the appropriate script for the target database.
- *MaxRows Override* Allows you to define a limit on the maximum number of rows to returned from a query. The default value of 0 means no limit.
- *Disable AutoCommit* Change the default commit behaviour of the OpenLink Lite Driver. The default mode is AutoCommit mode (box unchecked).
- *Disable Rowset Size Limit* Disable the limitation enforced by the cursor library. The limitation is enforced by default to prevent the Driver claiming all available memory in the event that a resultset is generated from an erroneous query is very large. The limit is normally never reached.
- *Defer fetching of long data* Defer fetching of LONG (BINARY, BLOB etc.) data unless explicitly requested in query. This provides significant performance increase when fields in query does not include LONG data fields.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.

Click on the 'Test Data Source' button to make a connection to the database to verify connectivity:

Figure 11.24. SybaseConfig8.png

UserName: sa URLString: {ServerNa FetchBufferSize: 60	ne=oplussol3.usnet	.private;PortNum	ber=4200;Databa	
FetchBufferSize: 60	<i>.</i>	SV 10		asename=pub
				1
NoLoginBox: No				
MaxRows: 0				
NoAutoCommit: No				
NoRowsetSizeLimit:	lo			
<u> </u>))•

Enter a vaild username and pasword for the database:

Figure 11.25. SybaseConfig9.png OpenLink ODBC for SQLServer (Express Edition) Lite Login Identity Connection Options Preferences About DSN : (File DSN) Username sa Password Cancel Connect

A successful connection to the database has been made:

12.2 OpenLink ODBC Driver for Sybase (Express Editon) for Windows

12.2.1 Installation

The OpenLink ODBCDriver for Sybase (Express Edition is a distributed as a Windows MSI installer. Simply double click on the installer 'ntl6esql.msi' to commence the installation:



cclxx

Installer Welcome Dialog for the OpenLink ODBCDriver for SQLServer (Express Edition):



Figure 11.27. EEWinsybinst02.png

Please read the software license agreement and accept before continuing your installation:

Figure 11.28. EEWinsybinst03.png

)be	enLink SQLServer ODBC Driver (Express Edition)Setup
Lic	ense Agreement You must agree with the license agreement below to proceed.
1	OPENLINK SOFTWARE LICENSE AGREEMENT
	ТҮРЕ
	License for OpenLink Universal Data Access Driver Suite.
	QUANTITY
	One or more copies of this product limited to 2 concurrent users, and 4 concurrent connections, maintained by the server based OpenLink License Manager. Additional license options shall be reflected in your registration key.
	USE
	You (an entity or a person) can make use of the software identified above (the "Software") in the quantity stated above if you meet the following conditions:
	OpenLink Server Components (OpenLink Bequest Broker & OpenLink Database 🛛 🐸
1	I accept the license agreement

Before installation you will be prompted for a license file. If a license file already exists on the machine then select the 'use exisiting file' option. A trial (try) or full (buy) license can be obtain by selecting the 'try and buy' option which loads our online try and buy web page:

Product Li e Select the	c ense e folder containing the product license.
\square	This product requires a product license for use, which the installer can automatically place in the correct location for you. If you already have a 'ee, sol. It lic' license file click the 'Browse' button and locate the folder it
Install the	in
Install the	in

To obtain the trial license you must be a registered user on the OpenLinkWeb site and login with the username (e-mail address) and password for that user. Click on the 'Shop' link to visit our online shop cart to purchases a full license if required:

Click on the 'download license' button to obtain the license file immediately and save to your desktop. Alternatively an auto e-mail will be sent to the registered users e-mail address with a link to their OpenLinkData Space (ODS) where all trial and full license files will be stored in the Briefcase for download at a later date.

Figure 11.30. EEWinsybinst05.png

🥹 Openl	ink Produ	ct Download	Wizard	- Moz	zilla Firefo	ж												
<u>E</u> ile <u>E</u> dit	<u>V</u> iew <u>G</u> o	<u>B</u> ookmarks	<u>T</u> ools	Help														
•••	 - S 	🛞 🏠	http:	//down	iload.openlinl	ksw.com/	/down	load/lo	gin.vsp	?relea	ase=(5.08dic	=ee_sc	*	0	50	G,	
🥐 Getting	g Started 🔯	Latest Headlin	es															
Google	•					~ .	G	Searc	י ד 🧭	AB	^P Che	eck 🕶	👯 Aut	oLink	< 🔊	Subs	cribe	- 1
🚳 FastSto	one Screen Ca	apture - The Be	st Free		OpenLink P	roduct	Down	nload	Wizard	I								

Universal Data A	ccess Drivers (ODBC, JDBC,	ADO) Download
------------------	-----------------	-------------	---------------

You have selected Single-Tier (Express Edition) ODBC Drivers for Microsoft SQL Server (Release 6.0) for use or Windows 98/NT/2000/XP/2003 (32 Bit) (x86)

Try Single-Tier (Express Edition) - Please Login	Buy Single-Tier (Express Edition)
To proceed you must login. You will receive a temporary license so that you can evaluate this product.	You can proceed directly to online sales with this product to purchase a full license.
Password:	
Sign-In Forgotten your password? Dop't have an account? Register	

Done

273

Select the license file to be used for the installation:

Figure 11.31. EEWinsybinst06.png

🞼 OpenLink SQLServer (DBC Driver (Express Edition) S	Setup 🛛
Look in: Documents and Settings Program Files uda virtuoso40 WINDOWS	<u>k (C.)</u>	
Eolder name: C:V		OK Cancel

Choose to perform a custom, typical or complete installation of the driver:

Figure 11.32. EEWinsybinst07.png



Select the features to be installed:

Figure 11.33. EEWinsybinst09.png

tup 📃 🗖 🔀
Ĩ
This feature requires 1696KB on your hard drive. It has 2 of 2 subfeatures selected. The subfeatures require 1280KB on your hard drive.

Click the install button to begin the installation of components:

Figure 11.34. EEWinsybinst10.png

记 OpenLink SQLServer ODBC Driver (Express Edition) Setup	
Ready to Install The installer is ready to begin the Custom installation.	Ĩ
Click Install to begin the installation. If you want to review or change any of your settings, click Back. Click Cancel to exit the installer.	r installation
< Back Install	Cancel

Installation in progress:

Figure 11.35. EEWinsybinst11.png
记 🕞 🕞 🕞 🕞 🕞
Installing OpenLink SQLServer ODBC Driver (Express Edition)
Please wait while the installer installs OpenLink SQLServer ODBC Driver (Express Edition). This may take several minutes.
Status:
Cancel

The Software installation is complete and ready for use:

Figure 11.36. EEWinsybinst12.png



12.2.2 Configuration

To configure an ODBCDSN, run the ODBCAdministrator located in the Administrative Tools section of the Control Panel:

Figure 11.37. EEWinsybconf01.png



Click on the drivers Tab to confirm the OpenLinkSQLServer ODBCDriver [Express Edition][6.0] has been successfully installed

Figure 11.38. EEWinsybconf02.png

💞 ODBC Data Source Administrator	?		
User DSN System DSN File DSN Drivers Tracing Connection	Pooling Abou	it]	
ODBC Drivers that are installed on your system:			
Name Microsoft Visual FoxPro-Treiber	Version 1.00.02.00	-	
OpenLink Generic ODBC Driver (Unicode) [6.0] 6.00 OpenLink Generic ODBC Driver (6.0) 6.00			
OpenLink Lite for SQL Server (Unicode) [6.0] Not marked OpenLink Lite for SQL Server [6.0] 1 40.00.00			
OpenLink SQLServer ODBC Driver (Express Edition) (Unicode) [6.0 OpenLink SQLServer ODBC Driver (Express Edition) [6.0]	1.00.00.00		
OpenLink Virtuoso (4.5) SQL Native Client	4.50.29.17 2005.90.139		
SQL Server	2000.85.111	<u>×</u>	
	<u> </u>		
An ODBC driver allows ODBC-enabled programs to get information from ODBC data sources. To install new drivers, use the driver's setup program.			
OK Cancel Apply	Help		

From either the User or System DSN tabs click on the Add button and select the OpenLinkSQLServer ODBCDriver [Express Edition][6.0] from the list presented to create an ODBCDSN :



Create New Data Source	Select a driver for which you want to set up a data source.
	Name A
	Microsoft Visual FoxPro Driver
	OpenLink Generic ODBC Driver (Unicode) [6.0]
357	OpenLink Generic ODBC Driver [6.0]
E SAN	OpenLink Lite for SQL Server [6.0]
	OpenLink SQLServer ODBC Driver (Express Edition) (C OpenLink SQLServer ODBC Driver (Express Edition) (6
	Coord ink) (it uses (4.5)
	< Back Finish Cancel

In the Data Source tab, select a suitable DSN name and optional description for the Data Source to be created:

Figure 11.40. EEWinsybconf04.png

OpenLink Single Tier D	SN Configuration
	This wizard will help you create an ODBC data source that you can use to connect to a remote Database. What name do you want to use to refer to the data source? Name: How do you want to describe the data source? Description:
	< Back Next > Cancel

The Connection Tab request the minimum paramters required to make a connection to the target database:

Figure 11.41. EEWinsybo	conf05.png		
OpenLink Single Tier I	SN Configuration	n	
1 Alexandre	Which server do yo	u want to connect to?	
	ServerType	Sybase	•
The areas	Host	localhost	
	Port	4100	
No.	Database	pubs2	
212 7	F		Advanced
	I Connect now to	verify that all settings are correct.	
	Login ID	sa	
OPENLINK SOFTWARE	Password:		
		< Back Next >	Cancel

- Server Type : This paramter should be set to Sybase which can be selected from th drop down list box
- *Host* : This is the fully qualified hostname, or IP address, of the machine hosting the DBMS you wish to access, e.g., dbms-server.example.com, or 192.168.155.123. Any hostname which will be resolved by your local DNS is acceptable.
- Port : This is the port that SQL Server is listening on
- Database : This is the SQL Server database that you want to connect to

- Login ID : This is a valid user on for the SQL Server Database
- Password : Enter valid password and click next to verify that all settings are correct or uncheck check box to delay this to a later stage.

The advanced button displays additional optional parameters that can be configured:

000	Attribute	Value	^
	Tds	8.0	
	Cachemetadata	false	
	Charset		
	Language		
	Domain		
	Instance		
	AppName	jTDS	
	ProgName	jTDS	~
<			>

Table 11.2.	
Tds	The version of TDS to be used.(default - '8.0')
Cachemetadata	When used with prepareSQL=3, setting this property to true will cause the driver to cache column meta data for SELECT statements. Use with care.(default - false)
Charset	Very important setting, determines the byte value to character mapping for CHAR/VARCHAR/TEXT values. Applies for characters from the extended set (codes 128-255). For NCHAR/NVARCHAR/NTEXT values doesn't have any effect since these are stored using Unicode.(default - the character set the server was installed with)
Language	Applies for characters from the extended set (codes 128-255). For NCHAR/NVARCHAR/NTEXT values doesn't have any effect since these are stored using Unicode.(default - the character set the server was installed with)
Domain	Specifies the Windows domain to authenticate in. If present and the user name and password are provided, it uses Windows (NTLM) authentication instead of the usual SQL Server authentication (i.e. the user and password provided are the domain user and password). This allows non-Windows clients to log in to servers which are only configured to accept Windoes authentication.
Instance	Named instance to connect to. SQL Server can run multiple so-called 'named instances' (i.e. different server instances, running on different TCP ports) on the same machine. When using Microsoft tools, selecting one of these instances is made by using '[host_name]\[instance_name]' instead of the usual '[host_name]'. You will have to split the two and use the instance name as a property.
AppName	Application name. No practical use, it's displayed by Enterprise Manager or Profiler associated with the connection.
ProgName	Client library name. No practical use, it's displayed by Enterprise Manager or Profiler associated with the connection.
Wsid	Workstation ID. No practical use, it's displayed by Enterprise Manager or Profiler associated with the connection.(default - the client host name)
MacAddress	Network interface card MAC address.(default - '000000000000')
12.2.2 Configuration	cclxxix

SendStringParametersAsUnicode	Determines whether string parameters are sent to the SQL Server database in Unicode or in the default character encoding of the database.(default - true)
LastUpdateCount	If true only the last update count will be returned by executeUpdate(). This is useful in case you are updating or inserting into tables that have triggers (such as replicated tables); there's no way to make the difference between an update count returned by a trigger and the actual update count but the actual update count is always the last as the triggers execute first. If false all update counts are returned; use getMoreResults() to loop through them. (default - true)
PrepareSQL	This parameter specifies the mechanism used for Prepared Statements.(default - 3 for SQL Server)
PacketSize	The network packet size (a multiple of 512).(default - 4096 for TDS 7.0/8.0; 512 for TDS 4.2/5.0)
TcpNoDelay	true to enable TCP_NODELAY on the socket; false to disable it.(default - true)
LobBuffer	The amount of LOB data to buffer in memory before caching to disk. The value is in bytes for Blob data and chars for Clob data.(default - 32768)
MaxStatements	The number of statement prepares each connection should cache. A value of 0 will disable statement caching.(default - 500)
LoginTimeout	The amount of time to wait (in seconds) for a successful connection before timing out. If namedPipe is true and loginTimeout is non-zero, the value of loginTimeout is used for the retry timeout when 'All pipe instances are busy' error messages are received while attempting to connect to the server. If namedPipe is true and loginTimeout is zero (the default), a value of 20 seconds is used for the named pipe retry timeout. (default - 0)
SocketTimeout	The amount of time to wait (in seconds) for network activity before timing out.Use with care! If a non zero value is supplied this must be greater than the maximum time that the server will take to answer any query. Once the timeout value is exceeded the network connection will be closed. This parameter may be useful for detecting dead network connections in a pooled environment.(default - 0)
NamedPipe	When set to true, named pipe communication is used to connect to the database instead of TCP/IP sockets. When the os.name system property starts with 'windows' (case-insensitive), named pipes (both local and remote) are accessed through the Windows filesystem by opening a RandomAccessFile to the path. When the SQL Server and the client are on the same machine, a named pipe will usually have better performance than TCP/IP sockets since the network layer is eliminated.
Ssl	Specifies if and how to use SSL for secure communication.(default - off)
BatchSize	Controls how many statements are sent to the server in a batch. The actual batch is broken up into pieces this large that are sent separately.(default - 0[unlimited] for SQL Server)
UseCursors	Instructs the driver to use server side cursors instead of direct selects (AKA firehose cursors) for forward-only read-only result sets (with other types of result sets server- or client-side cursors are always used).(default - false)
BufferMaxMemory	Controls the global buffer memory limit for all connections (in kilobytes). When the amount of buffered server response packets reaches this limit additional packets are buffered to disk; there is however one exception: each Statement gets to buffer at least '[bufferMinPackets]' to memory before this limit is enforced. This means that this limit can and will usually be exceeded.(default - 1024)
BufferMinPackets	Controls the minimum number of packets per statement to buffer to memory. Each Statement will buffer at least this many packets before being forced to use a temporary file if the [bufferMaxMemory] is reached, to ensure good performance even when one Statement caches a very large amount of data.(default - 8)
UseLOBs	Controls whether large types (IMAGE and TEXT/NTEXT) should be mapped by default (when using getObject()) to LOBs . The default type constant returned is also controlled by this property: BLOB for IMAGE and CLOB for TEXT/NTEXT when true, LONGVARBINARY for IMAGE and LONGVARCHAR for TEXT/NTEXT when false.(default - true)

As indiacted above the paramters of the options and preferences tabs are not required for a basic connection.

penLink Single Tier I	SontO7.png SSN Configuration	X
	Additional parameters: Drop Catalog name from DatabaseMetaData calls Drop Schema name from DatabaseMetaData calls Return an empty ResultSet for SQLStatistics Disable support of quoted identifier Disable support of search pattern escape Patch null size of SQLChar on: 4096	
	< Back Next > Canc	el

- *Row Buffer Size* This attribute specifies the number of records to be transported over the network in a single network hop. Values can range from 1 to 99.
- *Hide Login Dialog* Suppress the ODBC "Username" and "Password" login dialog box when interacting with your ODBC DSN from within an ODBC compliant application.
- *Read Only connection* Specify whether the connection is to be "Read-only". Make sure the checkbox is unchecked to request a "Read/Write" connection.
- *Drop Catalog from Meta calls* Enable this option to have the catalog name not appear for tables, views and procedures when requesting database meta-data.
- *Drop Schema from Meta calls* Enable this option to have the schema-name not appear for tables, views and procedures when requesting database meta-data.
- SQLStatistics disabled Check this box to have SQLStatistics() return an empty resultset. Use this if the underlying database does not support retrieving statistics about a table (e.g. what indexes there are on it).
- *No support of quoted identifier* If it is set, the call SQLGetInfo for 'SQL_IDENTIFIER_QUOTE_CHAR' will return the space (" "). It can be used if DBMS doesn't support quoted SQL like select * from "account"
- *No support of search string escape* If it is set, the call SQLGetInfo for 'SQL_LIKE_ESCAPE_CLAUSE' will return the space (" "). It can be used if DBMS doesn't support SQL escape patterns
- *Patch of NULL size of SQL_CHAR* If set this option overrides the size of SQL_CHAR column type returned by the database with the value set in the text box (in bytes). With the default value of 0 the driver uses the size returned by the database.
- *SQL_DBMS Name* Manually override the SQLGetInfo(SQL_DBMS_NAME) response returned by the driver. This is know to be required for products like Microsoft InfoPath for which the return the value should be "SQL Server".

Figure 11.44. EEWinsybconf08.png

OpenLink Single Tier D	SN Configuration
	Additional connect parameters: Read-only connection Defer fetching of long data Disable interactive login Row buffer size: 60 Max rows override: 0 Initial SQL: Dynamic cursor sensitivity: Low Enable logging to the log file:
	< Back Next > Cancel

- *Initialization SQL* Lets you specify a file containing SQL statements that will be run against the database upon connection, automatically.
- *Cursor Sensitivity* Enables or disables the row version cache used with dynamic cursors. When dynamic cursor sensitivity is set high, the Cursor Library calculates checksums for each row in the current rowset and compares these with the checksums (if any) already stored in the row version cache for the same rows when fetched previously. If the checksums differ for a row, the row has been updated since it was last fetched and the row status flag is set to SQL_ROW_UPDATED. The row version cache is then updated with the latest checksums for the rowset. From the user's point of view, the only visible difference between the two sensitivity settings is that a row status flag can never be set to SQL_ROW_UPDATED when the cursor sensitivity is low. (The row status is instead displayed as SQL_ROW_SUCCESS.) In all other respects, performance aside, the two settings are the same deleted rows don't appear in the rowset if their keys fall within the span of the rowset. If your application does not need to detect the row status SQL_ROW_UPDATED, you should leave the 'High Cursor Sensitivity' checkbox unchecked, as performance is improved. The calculation and comparison of checksums for each row fetched carries an overhead. If this option is enabled, the table oplrvc must have been created beforehand using the appropriate script for the target database.
- *MaxRows Override* Allows you to define a limit on the maximum number of rows to returned from a query. The default value of 0 means no limit.
- *Defer fetching of long data* Defer fetching of LONG (BINARY, BLOB etc.) data unless explicitly requested in query. This provides significant performance increase when fields in query does not include LONG data fields.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.

Figure 11.45. EEWinsybconf09.png

12.2.2 Configuration

OpenLink Single Tier D	SN Configuration
	Additional connect compatibility parameters: Enable Microsoft Jet engine options Disable Autocommit Disable rowset size limit Multiple Active Statements Emulation SQL_DBMS_NAME:
	< Back Next > Cancel

- *Disable AutoCommit* Change the default commit behaviour of the OpenLink Lite Driver. The default mode is AutoCommit mode (box unchecked).
- *Disable Rowset Size Limit* Disable the limitation enforced by the cursor library. The limitation is enforced by default to prevent the Driver claiming all available memory in the event that a resultset is generated from an erroneous query is very large. The limit is normally never reached.
- *Multiple Active Statements Emulation* Enables use of Multiple Active statements in an ODBC application even if the underlying database does not allow this, as it is emulated in the driver.

Click on the Test Data Sourcebutton to verfiy successful connection can be made to the database.

OpenLink Single Tier D	SN Configuration	×
(AN)	A new ODBC Datasource will be created with the following configuration:	
	DpenLink SQLServer Driver (Express Edition) Version: 1.0 File: C:\Program Files\OpenLink Software\UDA\bin\ntl5eesql.dll Data Source Name: syb12ea Data Source Description: URL string: (ServerType=2;ServerName=localhost;PortNumber=4100) Drop Catalog name from DatabaseMetaData calls: No Drop Schema name from DatabaseMetaData calls: No Disable support of quoted identifier: No Disable support of search pattern escape: No Patch null size of SQLChar on:: 4096 Read-only connection: No	
COPENLINK SOFTWARE	Test Data Source Test XA Connection	
	< Back Finish Cancel	

Figure 11.46. EEWinsybconf10.png