



## Installing dbANYWHERE

{button See Also,AL('Upgrading your license;Configuring dbANYWHERE as a Windows NT service;Configuring database access',0,'','')}  
The requirements, dependencies, and procedures described here are applicable to both development and deployment environments. Before installing dbANYWHERE, see [System requirements](#) and [Software dependencies](#).

The installation of dbANYWHERE on any of the three Windows platforms is very similar.

### To install dbANYWHERE on Windows 95 or Windows NT 4.0:

- 1 Insert the dbANYWHERE Server CD into the CD-ROM drive.
- 2 Launch the Add/Remove Programs utility from the Windows Control Panel.
- 3 Click Install.
- 4 The Install Wizard launches.
- 5 Follow the instructions in the Install Wizard.

### To install the dbANYWHERE Server on Windows NT 3.51:

- 1 Insert the dbANYWHERE Server CD into the CD-ROM drive.
- 2 Launch setup.exe from the root directory of the CD.  
The Install Wizard launches.
- 3 Follow the instructions in the Install Wizard.

After installing dbANYWHERE, you will need to [configure database access](#).

## **System requirements**

You can run dbANYWHERE on the Windows 95, Windows NT 3.51, and Windows NT 4.0 platforms. dbANYWHERE has the following requirements for each of these:

- Pentium microprocessor
- 32 megabytes of RAM
- 20 megabytes of disk space

**Software dependencies**

You can run all three tiers, the client, the dbANYWHERE server, and the database server, on a single computer. If you choose this configuration, no network is required. However, if either (or both) the client and the database server is on a separate machine(s), they must be connected by a network.

**Note:** Even if configured for a single machine, you must still install TCP/IP to support the Java VM.



## Upgrading your license

{button See Also,AL('Installing dbANYWHERE',0,'','')}

### **You do not need to upgrade your dbANYWHERE license.**

This dbANYWHERE Server is a full version of the product. There are no license limitations.



## Welcome to dbANYWHERE

{button See Also,AL('Trademark information',0,'','')}

dbANYWHERE is a tool that manages connections between a [Java app](#) and one or more databases. It allows you to embed database access code in your Java apps which is not dependent on any particular database engine.

dbANYWHERE implements the Sun Microsystems™ JDBC™ API. A Java app written to the JDBC API transparently connects to a dbANYWHERE server, which in turn connects to the database.

This architecture provides the following benefits:

- Platform-independent and database-independent Java apps
- Single installation and maintenance location for database connectivity libraries; on the dbANYWHERE server machine instead of on each client machine

### Supported browsers

To run Java applets that access data through dbANYWHERE, your browser must be Java-enabled. This includes version 3.0 and later of Microsoft Internet Explorer and Netscape Navigator.

### Scalability

A single dbANYWHERE server machine can provide simultaneous access to multiple databases, both local and remote, on a variety of platforms.



**Java app**

In most cases, the information in this help file applies to both applets and applications written in Java. Therefore, the name "app" is used as an umbrella term to cover both applets and applications. In cases where differentiation is important, the terms applet and application are used.



## System Architecture

{button See Also,AL('Configuring database access',0,'')}}

The dbANYWHERE application supports a three-tier system architecture. The [architecture diagram](#) shows each tier on a separate machine. It is also possible to combine two or in some cases, all three tiers on a single machine. The single machine configuration can be very useful as a stand-alone development environment.

### First tier: the Java client machine

The first tier hosts the client Java app and the its supporting files. The client can reside on any platform, including UNIX, Windows, and MacOS.

Symantec's Visual Cafe is an ideal tool for creating client Java apps. You can use the Database Development Edition to harness the power of dbANYWHERE using JDBC. For information about Visual Cafe, visit Symantec's Web site at [cafe.symantec.com](http://cafe.symantec.com).

For more information on configuring the Java client machine, see [Developing Java apps with dbANYWHERE](#).

### Second tier: the dbANYWHERE server machine

The second tier hosts the dbANYWHERE server and database drivers. The components on this tier manage database connections, data buffering, heterogeneous joins, and all other database communications. The dbANYWHERE server can reside on the following platforms:

- Windows 95
- Windows NT

The dbANYWHERE server configuration includes the following dbANYWHERE components:

- Server software
- Database drivers
- Database client software

The dbANYWHERE server manages the connections between the client and the database, while the database driver provides the communications links between dbANYWHERE and the database server. The dbANYWHERE server can simultaneously manage connections to a number of heterogeneous databases.

In addition to these functions, the dbANYWHERE server also is a client to the database, therefore it can also be thought of as a database client machine.

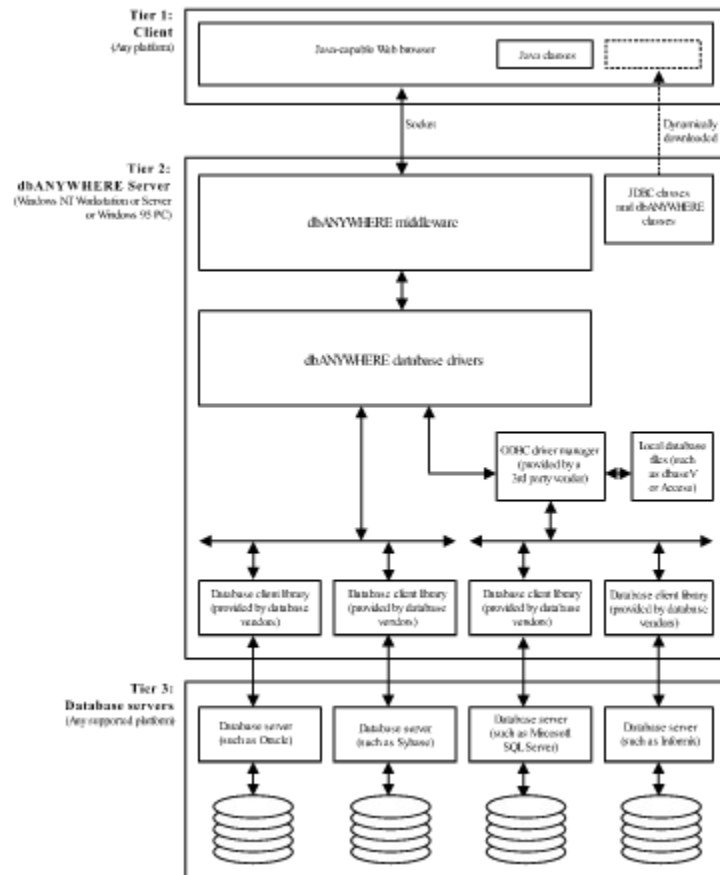
For more information on configuring the dbANYWHERE server, see [Configuring database access](#) and [Configuring dbANYWHERE as a Windows NT service](#).

### Third tier: the database server

The third tier hosts the database server and typically the database itself. Database servers store and retrieve persistent data and are typically on a remote machine. The database architecture and platforms supported by each database vary depending on the database package you're using. Consult your database vendor's documentation for details.



## System Architecture Diagram





## Java packages

{button See Also,AL('Developing Java apps',0,'','')}

dbANYWHERE includes the dbaw.zip Java package that implements the Sun Microsystems JDBC API.

For Java applets viewed through a Java-enabled browser, the classes used by the applet are downloaded automatically. For Java applets viewed using appletviewer and Java applications, these packages must be installed somewhere in the CLASSPATH on the Java client machine. For more information on configuring the Java client machine, see [Developing Java apps with dbANYWHERE](#).



## Database and ODBC driver support

{button See Also,AL('Configuring database access;Creating a driver configuration file;Native data sources;ODBC data sources',0,'','')}  
These are the databases and ODBC database drivers that are supported by dbANYWHERE.

### Native driver support

The dbANYWHERE server provides native JDBC connections to the following databases servers:

- Microsoft SQL Server 4.x and 6.x
- Sybase SQL Server 4.x, 10.x, and 11.x
- Oracle 7.x
- Informix 7.x

For information on how to setup a native data source, see [Native data sources](#).

### ODBC driver support

The dbANYWHERE server can provide connections to any database server with an ODBC driver.

For information on how to setup an ODBC data source, see [ODBC data sources](#).



## **Trademark information**

dbANYWHERE, Symantec Cafe, Visual Cafe, and Visual Cafe Pro are trademarks of Symantec Corporation. Other brands and their products are trademarks of their respective holders and should be noted as such.



## **Ordering a product**

### **Pricing information**

Pricing information for dbANYWHERE and other Symantec Internet Tools products is at <http://www.symantec.com/cafe/PricingStructure.html>.

### **Ordering**

To order products via mail, write to:

Symantec Corporation  
Attn: Order Administration  
P.O. Box 10849  
Eugene, OR 97440



## Sending feedback

We'd love to hear your comments!

### Ways you can send us feedback:

- 1 Symantec Online Technical Support at <http://service.symantec.com>.  
Select the product dbANYWHERE, and choose Ask a Tech to participate in the dbANYWHERE Discussion Group.
- 2 Usenet newsgroups at <news://services.symantec.com>.

You may also post your comments in the following newsgroups:

- symantec.support.devtools.pc.dbanywhere.using
- symantec.support.devtools.pc.dbanywhere.jdbc
- symantec.support.devtools.pc.dbanywhere.install
- symantec.support.devtools.pc.dbanywhere.announce

### **IMPORTANT! For best response on technical support, please provide the following information:**

#### **Environment Information**

- 1 dbANYWHERE
  - Version number and build number?
  - dbANYWHERE Server, dbANYWHERE Workgroup Server, or dbANYWHERE Service Manager?  
(These can be found in the About box, select Help ► About Symantec dbANYWHERE)
- 2 Java Client Development Environment
  - Name and version number? (e.g. Visual Cafe Pro 1.0e, dbDE 2.0, dbDE 2.1, Cafe 1.8, etc)
  - JDBC API, JDBC Java Beans, or dbANYWHERE API?
- 3 Database Server
  - Name and version number? (e.g. Oracle 7.3, MS SQL Server 6.5, etc.)
  - Connected via dbANYWHERE native driver or ODBC driver?
  - Name and version number of database client software installed on the machine running dbANYWHERE? (e.g. Oracle SQL\*Net 2.3.3)
- 4 Platforms (for dbANYWHERE, Java client, and Database server)
  - Operating systems version number and service pack number
  - Machine types (e.g. 486, Pentium), processor speed, RAM.

#### **Application Information**

- 1 Detailed problem description.
  - 2 Step-by-step procedures to reproduce the problems.  
(Narrowed down as much as possible to a very simple scenario.)
  - 3 Entire dbANYWHERE log from first database connection to where the error occurs.  
(To turn on dbANYWHERE logging: Options menu ► Properties)
- Logging
- Log what: check both SQL Statements and Connection stats)
- 4 Java applets or applications to reproduce the problems.  
(Entire project files ready to execute, preferably simple code generated by Visual Café wizards.)
  - 5 SQL statements to create the table and indices.  
(or a sample db file in the case of a DBMS such as MS Access or SQL Anywhere. The sample db should only contain the tables needed to replicate the problem, and as little data as possible to replicate the problem.)
  - 6 Enough sample data to recreate the problem.  
(if data is needed to produce the error)



## Starting and stopping dbANYWHERE

{button See Also,AL('Configuring dbANYWHERE as a Windows NT service',0,'','')}

You can launch dbANYWHERE from the Windows Start menu or set the system to automatically launch when you boot your system. The procedure for shutting down dbANYWHERE is standard to the Windows platform.

### To launch dbANYWHERE:

- From the Start Menu, select Symantec dbANYWHERE Server > Symantec dbANYWHERE Server.

### To launch dbANYWHERE automatically when you start your Windows 95 system:

- Create a shortcut to dbANYWHERE in your Startup folder.

### To launch dbANYWHERE automatically when its services are requested (Windows NT only):

- [Install dbANYWHERE as an NT service.](#)

### To launch the Windows NT dbANYWHERE service automatically when you start your system:

- Check the Automatic start on system boot checkbox on the NT Service tab of the dbANYWHERE Properties dialog box.

### To quit dbANYWHERE:

- Click Shutdown in the dbANYWHERE Server Window.



## Configuring dbANYWHERE as a Windows NT service

{button See Also,AL('The dbANYWHERE Service Manager;NT Service Properties',0,'','')}

On Windows NT platform, you have the option of managing dbANYWHERE as a Windows NT service. To learn more about Windows NT services, see the Windows NT platform documentation.

### To install dbANYWHERE as a Windows NT Service:

- 1 Launch the dbANYWHERE Service Manager.
- 2 Choose Install As Service from the Options menu.

### To remove the dbANYWHERE Windows NT Service:

- 1 Launch the dbANYWHERE Service Manager.
- 2 Choose Remove Service from the Options menu.

### To launch the Windows NT dbANYWHERE service automatically when you start your system:

- 1 Check the Automatic start on system boot checkbox on the NT Service tab of the dbANYWHERE Properties dialog box.





## Configuring database access

{button See Also,AL('Testing connectivity;Creating a driver configuration file;Database and ODBC driver support;Native data sources;ODBC data sources',0,'','')}

Normally you will set up a data source before trying to connect to your database. A data source contains the information for creating a database connection and identifies a database to a database client application.

Before you attempt to create a data source, you must first make sure the database is installed on a database server machine and is accessible to you. For assistance, see your database administrator. Once you have access to the database, you can setup the data source.

You can access a database through dbANYWHERE by using either an ODBC driver or one of the native drivers provided by dbANYWHERE.

See [ODBC data sources](#) for information on setting up an ODBC data source.

See [Native data sources](#) to learn how to setup a native dbANYWHERE data source.

**System DSN**

Using the 32bit ODBC utility, you can create a user data source or a system data source. In most cases, it is best to create a system data source so it can be utilized by all users of the machine and not just the creator of the data source.

**Name and description**

Remember the name you give to the data source. You will use this data source to access the database through dbANYWHERE.



## ODBC data sources

{button See Also,AL('Configuring database access;Testing connectivity;Native data sources',0,'','')}

You can use the 32 bit ODBC utility in the Windows Control Panel to create ODBC data sources. Before you can do this, you must first install the ODBC driver and client software for the database you want to access.

### To setup an ODBC data source:

- 1 Install the appropriate 32bit ODBC driver for the database.
- 2 Launch the 32bit ODBC utility in the Windows Control Panel.
- 3 Click System DSN (optional).  
Using the 32bit ODBC utility, you can create a user data source or a system data source. In most cases, it is best to create a system data source so it can be utilized by all users of the machine and not just the creator of the data source.
- 4 Click Add.
- 5 Select the ODBC driver you want to use and click OK.
- 6 Enter a name and description for the data source.
- 7 Enter the information required by the driver to access the database.  
This information varies with each driver. Typically, you will at least need the name and location of the database and the engine.
- 8 Click OK to save changes to the data source.
- 9 Click Close to exit the 32bit ODBC utility.

**Launch Data Source Tool**

To launch the Data Source tool, select Configure Data Sources from the dbANYWHERE group on the Start menu.



## Native data sources

{button See Also,AL('Configuring database access;Creating a driver configuration file;Testing connectivity;ODBC data sources',0,'','')}

You can use the Symantec dbANYWHERE Data Source Tool to create data sources. Before you can do this, you must first install the client software for the database you want to access.

Currently dbANYWHERE provides drivers for the following databases:

- Sybase SQL Server (4.x, 10.x, and 11.x)
- Microsoft SQL Server (4.x and 6.x)
- Oracle 7.x
- Informix 7.x

### To setup a native data source for SQL Server (Sybase or Microsoft) or for Informix:

- 1 Launch the Data Source Tool.  
To launch the Data Source tool, select Configure Data Sources from the dbANYWHERE group on the Start menu.
- 2 Click New.
- 3 Enter a name and description for the data source.
- 4 Select the appropriate database type from the Engine drop-down list.
- 5 Enter the name of the Server and the Database.
- 6 You can optionally enter a Username and Password.
- 7 Click Save to save changes to the data source.

### To setup a native data source for Oracle:

- 1 Launch the Data Source Tool.  
To launch the Data Source tool, select Configure Data Sources from the dbANYWHERE group on the Start menu.
- 2 Click New.
- 3 Enter a name and description for the data source.
- 4 Select the appropriate database type from the Engine drop-down list.
- 5 Select the appropriate protocol from the Protocol drop-down list.
- 6 Enter the Server name and the Instance name.  
If you are using Personal Oracle, you need only enter the name of the Server--the Instance is implicitly the same.
- 7 You can optionally enter a Username and Password.
- 8 Click Save to save changes to the data source.



## Testing connectivity

{button See Also,AL('Using the Data Source Tool test window ;Using the dbANYWHERE Data Source Test Tool;Configuring database access',0,',')}}

The dbANYWHERE application provides two methods for testing your data sources:

- n [The Data Source Tool Test Window](#)
- n [The dbANYWHERE Data Source Test Tool](#)

**Modifying the dbANYWHERE URL**

You might want to replace localhost with the name of the dbANYWHERE server machine, because distributed Java apps will need the server name in the URL . Also, if you are using a different port you must replace 8889 with the appropriate port number.



- For a dbANYWHERE API test, click PRO API Test.
- For a JDBC API test, click JDBC API Test.



## Using the Data Source Tool test window

{button See Also,AL('Testing connectivity;Configuring database access;The Data Source Tool Test Window',0,'')}

You can use the Test window of the Data Source Tool to test the data sources you create with that tool. The Test window attempts to open the database, issue a query, and close the database using the data source. The Test window enables you to perform the test using either the dbANYWHERE API or the JDBC API.

### To test a data source using the Test window:

- 1 Make sure dbANYWHERE is running.
- 2 Launch the Data Source Tool.  
To launch the Data Source tool, select Configure Data Sources from the dbANYWHERE group on the Start menu.
- 3 Select the data source you want to test from the Defined Data Sources list box.
- 4 You can optionally enter a Username and Password.
- 5 You can optionally modify the dbANYWHERE Server URL.  
By default, the URL is: dbaw://localhost:8889/  
You might want to replace localhost with the name of the dbANYWHERE server machine, because distributed Java apps will need the server name in the URL . Also, if you are using a different port you must replace 8889 with the appropriate port number.
- 6 Click Test.  
The Data Source Tool displays the Test window.
- 7 Click the Test button for the [type of test](#) you want to perform.  
The Test window performs the test and displays its output.
- 8 When you are finished, click OK to close the Test window.

**Data Source drop-down list**

Displays data sources created in both the dbANYWHERE Data Source Tool and the Windows 32bit ODBC utility.



## The dbANYWHERE Data Source Test Tool

{button See Also,AL('Testing connectivity;Configuring database access;The Test dbANYWHERE Data Source dialog box',0,'','')}

You can use the dbANYWHERE Data Source Test tool to test the data sources you have created with the either the dbANYWHERE Data Source Tool or the Windows 32bit ODBC utility.

The Data Source Test Tool attempts to open and close the database using the specified data source.

### To test a data source:

- 1 Launch dbANYWHERE.
- 2 Select Test Data Sources from the Help menu.  
dbANYWHERE displays the Data Source Test Tool.
- 3 Select the data source you want to test from the [Data Source drop-down list](#).
- 4 You can optionally enter a Username and Password.
- 5 Click Test.  
The Data Source Test Tool performs the test and displays a message box indicating success or failure.
- 6 Click OK to close the message box.
- 7 When you are finished, click OK to close the Test window.



## Developing Java apps with dbANYWHERE

{button See Also,AL('Constructing URL strings;Setting the environment to find JDBC classes',0,'')}  
{/button}

Symantec's Visual Cafe is an ideal tool for creating Java apps. As you use the Visual Cafe wizards and other visual tools, Visual Cafe generates the corresponding Java and database connectivity code for you. The wizards in the Database Development Edition use dbANYWHERE to connect to your database during development time. This allows you to build and run the Java app you are generating, at intervals during coding.

You can also use dbANYWHERE with hand-written Java code or code generated by other Java development environments, provided you use either the JDBC or native dbANYWHERE API. If you are coding Java apps outside the Visual Cafe development environment, you will need to know how to construct the URL strings for the databases supported by dbANYWHERE. See [Constructing URL strings](#).



## Setting the environment to find JDBC classes

To compile and run Java apps that use dbANYWHERE, you must set your development environment so that it can find the dbANYWHERE JDBC classes. In the Visual Cafe environment you must edit the `sc.ini` file. For other Windows development environments you must set the `CLASSPATH` environment variable.

### Updating the `sc.ini` file

If you are using one of Symantec's Visual Cafe products, such as Visual Cafe Database Development Edition, to develop your Java apps, you need to change `SC.ini` to include the JDBC and dbANYWHERE classes. The `SC.ini` file sets the `CLASSPATH` for the Visual Cafe development environment.

The syntax is the same as that for setting the environment variable except that `SET` command is not necessary. For example:

```
CLASSPATH=c:\java\lib;...;c:\dbANYWHERE\lib\dbaw.zip
```

**Note:** Visual Cafe reads the `SC.ini` file only when it is launched. If you edit `SC.ini` while Visual Cafe is running, you must restart the program for the changes to take effect.

### Setting the `CLASSPATH` variable

On a Windows platform machine, the `CLASSPATH` variable is typically set by a statement in the `autoexec.bat` file. The following example shows a `CLASSPATH` variable being set:

```
SET CLASSPATH=c:\java\lib;d:\other\jclasses\lib
```

To use the dbANYWHERE classes, you need to add the directory that holds these classes to the pathway used by the `CLASSPATH` variable, as shown in the example:

```
SET CLASSPATH=c:\java\lib;...;c:\dbANYWHERE\lib\dbaw.zip
```



## Using the dbANYWHERE driver name

{button See Also,AL('Constructing URL strings',0,';')}

The dbANYWHERE driver name, which adheres to the JDBC specification for driver names, is:

```
symantec.itools.db.jdbc.Driver
```

**Note:** When coding, you must enter the dbANYWHERE driver name exactly as it appears above. It is case sensitive.



## Constructing URL strings

{button See Also,AL('Using the dbANYWHERE driver name;Native Driver URLs;ODBC Driver URLs',0,'')}  
{/button}

The following is the standard URL syntax to use for accessing databases through dbANYWHERE:

`<protocol>:<secondary-protocol>://<host>:<port>/<db-engine>/<server-name>/<database>`

The following lines further define the parts of the syntax:

In all cases, when using dbANYWHERE with JDBC, the values of `<protocol>:<secondary-protocol>` are `jdbc:dbaw`.

**Note:** If you are using the dbANYWHERE API instead of the JDBC API, remove “jdbc:” from the beginning of the URL, for example: “dbaw://localhost:8889/...”.

The value of `<host>` is the name or IP address of the machine on which dbANYWHERE is running. The value of `<port>` is the number of the port which is dedicated to dbANYWHERE. The default value for `<port>` is 8889. Other appropriate sample values could be: `//srvr01:8888` or `//123.45.67.89:8889`

If dbANYWHERE is running on the same machine as its client Java app, you can use `localhost` as the value for `<host>`, for example: `//localhost:8889`.

The values of the `<db-engine>/<server-name>/<database>` fields are dependent on the database and driver you are using.

**For specifics, see:**

[Native Driver URLs](#)

[ODBC Driver URLs](#)





## ODBC Driver URLs

{button See Also,AL('Constructing URL strings;Using the dbANYWHERE driver name;Native Driver URLs',0,'','')}

In mosts cases with ODBC drivers, the `<db-engine>` part of the URL reflects the vendor and the `<server-name>` and `<database>` have the data source name as their value.

The following are some examples of ODBC driver URLs:

» **Watcom 4.x**

```
jdbc:dbaw://server01:8889/Watcom/mySampleDB/mySampleDB
```

» **MS Access 2.0 and 7.0**

```
jdbc:dbaw://server01:8889/MS_Access/mySampleDB/mySampleDB
```

» **Sybase SQLAnywhere 5.x**

```
jdbc:dbaw://server01:8889/Sybase_SQLANY/mySampleDB/mySampleDB
```



## Native Driver URLs

{button See Also,AL('Constructing URL strings;Using the dbANYWHERE driver name;ODBC Driver URLs',0,'')}

With native drivers, <db-engine> reflects the vendor, but <server-name> and <database> have different values. The following are some examples.

- n MS SQL Server (4.x and 6.x)  
jdbc:dbaw://server01:8889/SQL\_Server/myServer/SampleDB
- n Sybase SQL Server for Windows 95 (4.x, 10.x, and 11.x)  
jdbc:dbaw://server01:8889/Sybase\_Win95/myServer/SampleDB
- n Sybase SQL Server (Windows NT)  
jdbc:dbaw://server01:8889/Sybase\_NT/myServer/SampleDB
- n Informix 7.x  
jdbc:dbaw://server01:8889/Informix/myServer/SampleDB
- n Oracle 7.x

The URLs for Oracle databases have an extra field in the <server-name> parameter to identify the database protocol. The following are some SQLNET V1 examples, listed by database protocol.

- n TCP/IP  
jdbc:dbaw://server01:8889/Oracle\_7/**T**:oraServer.com/ORCL
- n Named Pipes  
jdbc:dbaw://server01:8889/Oracle\_7/**P**:oraServer.com/ORCL
- n SPX/IPX  
jdbc:dbaw://server01:8889/Oracle\_7/**X**:oraServer.com/ORCL
- n NetBIOS  
jdbc:dbaw://server01:8889/Oracle\_7/**B**:oraServer.com/ORCL

This is an SQLNET V2 example.

```
jdbc:dbaw://server01:8889/Oracle_7/TNS:ORASERV.WORLD/ ORCL
```

This is a Personal Oracle example.

```
jdbc:dbaw://server01:8889/Oracle_7/2:ORCL/ORCL
```



## Creating a driver configuration file

{button See Also,AL('Configuration file parameters;Driver configuration file naming conventions',0,'','')}

A driver configuration file enables you to specify data source driver values, such as the maximum number of database processes, that dbANYWHERE uses for a particular driver. Without a driver configuration file, dbANYWHERE uses a set of predefined defaults.

Sample files are provided to make it easy to create driver configuration file.

### To setup a driver configuration file:

- 1 Copy the appropriate sample file to the dbANYWHERE directory.
- 2 Change the extension of the file from .smp to .ini.
- 3 Edit the file to set the desired values for each parameter.
- 4 Restart dbANYWHERE.

See [Configuration file parameters](#) for a description of the parameters.

**Note:** The driver configuration file sets processing properties for all data sources of a given type. For example, if you create a Sybase SQL Server configuration file, dbANYWHERE uses the specified values for all Sybase SQL Server data sources.



## Configuration file parameters

{button See Also,AL('Creating a driver configuration file;Driver configuration file naming conventions',0,';')}}

The driver configuration file is a text file that sets driver processing parameters. Each line has a parameter name, an equal (=) sign, and a value as shown here:

```
PARAM_NAME=<value>
```

The following table shows the name of each parameter in the driver configuration file, along with its default value and range.

Parameter	Default Value	Value Range
<a href="#"><u>MINDBPROCESSES</u></a>	1	1 - 99
<a href="#"><u>MAXDBPROCESSES</u></a>	3	1 - 99
<a href="#"><u>SELECT_TIMEOUT</u></a>	180	1 - 999
<a href="#"><u>UPDATE_TIMEOUT</u></a>	60	1 - 999
<a href="#"><u>READ_TIMEOUT</u></a>	15	1 - 999

### Example

```
MINDBPROCESSES=3  
MAXDBPROCESSES=14  
SELECT_TIMEOUT=150  
UPDATE_TIMEOUT=50  
READ_TIMEOUT=15
```

**MINDBPROCESSES**

The minimum number of open processes maintained at any given time between dbANYWHERE and the SQL Server database.

**MAXDBPROCESSES**

The maximum number of open processes maintained at any given time between dbANYWHERE and the SQL Server database.

**DODBCANCEL**

Determines whether or not to perform a cancel operation on pending results on a database process. If this is turned off (by using the N value), dbANYWHERE reads and discards all pending results for a process, before continuing with the next request. This option should be off when accessing an SQL Server database using TCP/IP.

**SELECT\_TIMEOUT**

The number of seconds dbANYWHERE waits for a "select" SQL statement to return with results from the server. If the time-out expires before the results are obtained, the user is notified via a time-out message.



**UPDATE\_TIMEOUT**

The number of seconds dbANYWHERE waits for an "update" SQL statement to process. If the time-out expires before results are obtained, the user is notified via a time-out message.

**READ\_TIMEOUT**

The number of seconds dbANYWHERE waits for a data definition language statement to process. If the time-out expires before results are obtained, the user is notified via a time-out message.



## Driver configuration file naming conventions

{button See Also,AL('Creating a driver configuration file',0,'','')}

Driver configuration files have the same base name as the driver DLL, but with a .ini extension. For example, for the Microsoft SQL Server driver (ddmssql.dll), the configuration file is ddmssql.ini.

The following table shows the appropriate file names.

Data Source	Driver	Config file	Sample file
Microsoft SQL Server	ddmssql.dll	ddmssql.ini	ddmssql.smp
Sybase SQL Server	ddsybase.dll	ddsybase.ini	ddsybase.smp
Informix	ddinfmtx.dll	ddinfmtx.dll	ddinfmtx.smp



## Deploying Java Apps with dbANYWHERE

{button See Also,AL('Running Java applets;Running Java applications;Setting the environment to find JDBC classes;Testing connectivity',0,',')} }

Java applications and applets that use dbANYWHERE need to access the dbANYWHERE classes at run-time. The dbANYWHERE data-access classes are contained in dbaw.zip. The visual components of dbANYWHERE classes (generated by Visual Cafe) are contained in dbaw\_awt.zip. Make sure these packages are in your [CLASSPATH](#).

### Downloading Java packages

You can dynamically download Java packages to the client or install the packages on the client manually. To avoid the administration problems of installing the packages on each client, you should dynamically download the packages. For Java applets, your Web browser handles this automatically, it downloads classes as they are needed.

**For details on running Java apps, see:**

[Running Java applets](#)

[Running Java applications](#)



## Running Java applets

{button See Also,AL('Setting the environment to find JDBC classes;Running Java applications;Deploying Java Apps with dbANYWHERE',0,'','')}

There are two tools you can use to execute a Java applet: the appletviewer and your web browser.

### To run a Java applet in the appletviewer:

- 1 Insert your applet into an HTML document using the APPLET tag.
- 2 Issue the following command:

```
appletviewer <html-file>
```

where <html-file> is the name of the HTML document.

### To run a Java applet in a web browser:

- 1 Insert your applet into an HTML document using the APPLET tag.
- 2 Open the HTML document in your web browser.



## Running Java applications

{button See Also,AL(`Setting the environment to find JDBC classes;Running Java applets;Deploying Java Apps with dbANYWHERE',0,'')}

### To run a Java application:

1 Make sure your [CLASSPATH](#) environment variable points to the appropriate class file directories.

2 Issue the command:

```
java <application>
```

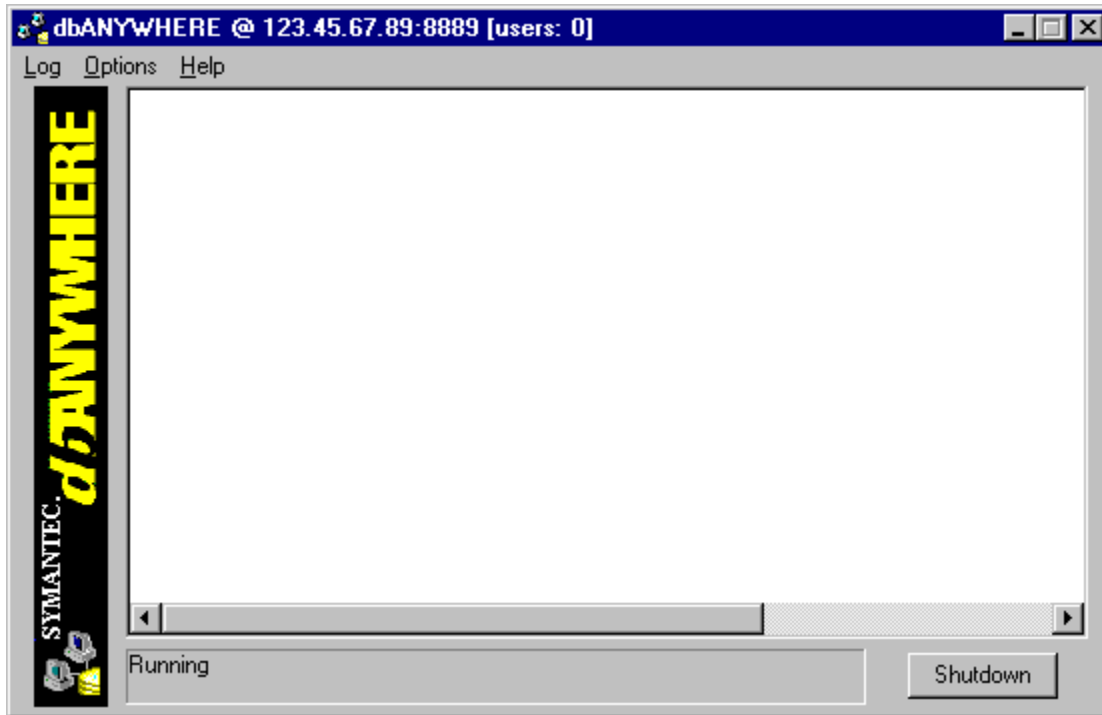
where <application> is the name of the class file that contains the MAIN routine.



## The dbANYWHERE Server Window

{button See Also,AL('The dbANYWHERE Service Manager',0,';')}}

The dbANYWHERE server window is your dbANYWHERE control center.



The following are descriptions of the various interface elements of the dbANYWHERE server window.

### Title Bar

The dbANYWHERE title bar displays the IP address of the dbANYWHERE server machine, the port number, and the number of users currently connected to the dbANYWHERE server.

### Log Window

The log window is the large text area that occupies most of the Server window. It displays specified log messages. Use the Logging tab of the Properties dialog box to specify what dbANYWHERE logs.

### Status Bar

The status bar at the bottom of the window displays the current state of dbANYWHERE.

### Shutdown Button

The Shutdown button in the bottom right corner of the window enables you to shut down dbANYWHERE.



## Log Menu

{button See Also,AL('Logging Properties;The dbANYWHERE Server Window',0,'','')}

The commands in the Log menu enable you to manipulate the contents of the log window.

### Clear

This menu item clears the contents of the log window.

### Copy

This menu item copies the currently selected contents of the log window to the clipboard.

### Select All

This menu item selects the entire contents of the log window, which you can then copy and paste.

### Save As

This menu item enables you to save the current contents of the log window to a file.





## Options Menu

{button See Also,AL('The Properties dialog box;The dbANYWHERE Server Window',0,'','')}

The commands in the Options menu enable you to set runtime options for dbANYWHERE.

### Minimize on Startup

This checkable menu item allows you to specify whether or not to minimize the dbANYWHERE server window on startup. When checked, the dbANYWHERE server window launches as an icon.

### Properties

This menu item displays the dbANYWHERE [Properties dialog box](#). Its multiple tabs enable you to specify run-time behavior for dbANYWHERE. The tabs, whose properties are explained in detail on the indicated pages, include:





## Help Menu

{button See Also,AL('The Test dbANYWHERE Data Source dialog box;The dbANYWHERE Server Window',0,'','')}

The commands in the Help menu provide access to dbANYWHERE online help and other useful facilities.

### Topics

This menu item displays the Help Topics dialog box, which provides access to dbANYWHERE online help.

### How to Order

This menu item displays information about how to order dbANYWHERE and other Symantec products.

### Sending Feedback

This menu item displays information about sending feedback to the dbANYWHERE team at Symantec.

### Test Data Sources

This menu item opens the [Test dbANYWHERE Data Source dialog box](#), which allows you to test data sources.

### About Symantec dbANYWHERE

This menu item displays the About box, which contains version, copyright, and other information for dbANYWHERE.

### LiveUpdate

This menu item launches the LiveUpdate tool, which provides access to the latest updates available for dbANYWHERE.



## The Test dbANYWHERE Data Source dialog box

{button See Also,AL(' Testing connectivity;Configuring database access;Creating a driver configuration file;The Data Source tool;The Data Source Tool Test Window;','0','')}  
The Test dbANYWHERE Data Source dialog box enables you to run a test on available data sources.

### Data Source

The Data Source drop-down list enables you to select a data source to test.

### Username and Password

These fields enable you to optionally supply a username and password to connect to the database. If you do not provide a username and password, these values are taken from the data source.

### Test

The Test button initiates a test on the selected data source. When the test has completed, a message box appears indicating whether or not the test was successful.

### Done

The Done button closes the Test dbANYWHERE Data Source dialog box.



## The Properties dialog box

{button See Also,AL('Network Properties;Logging Properties;Errors Properties;Resources Properties;Tuning Properties;NT Service Properties',0,'','')}

When you select Properties from the Options menu, dbANYWHERE displays the Properties dialog box. This dialog box contains tabs which provide access to a variety of run-time properties for dbANYWHERE.

- n [Network Properties](#)
- n [Logging Properties](#)
- n [Errors Properties](#)
- n [Resources Properties](#)
- n [Tuning Properties](#)
- n [NT Service Properties](#)



## Network Properties

{button See Also,AL('Logging Properties;Errors Properties;Resources Properties;Tuning Properties;NT Service Properties',0,'','')}  
The Network tab of the Properties dialog box enables you to specify network-related properties for dbANYWHERE.

The screenshot shows the 'dbANYWHERE Server Properties' dialog box with the 'Network' tab selected. The dialog has a title bar with a close button. Below the title bar are five tabs: 'Network', 'Logging', 'Errors', 'Resources', and 'Tuning'. The 'Network' tab is active. Inside the tab, there is a section titled 'Listen for clients at' which contains a 'Port number' field with the value '8889' and an 'IP Address' field. To the right of the 'IP Address' field is a checkbox labeled 'Use default'. Below this section is another checkbox labeled 'Allow remote Administration (dbawAdmin)'. At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Help'.

### Port number

The Port number field enables you to specify the number of the port for dbANYWHERE to use. By default, dbANYWHERE uses port 8889.

### IP Address

The IP Address field enables you to specify the IP address for dbANYWHERE to use. You must uncheck the Use default checkbox to specify an alternative IP address.

### Use default

This checkbox enables you to specify whether or not dbANYWHERE uses the default IP address.

### Allow remote Administration (dbawAdmin)

This checkbox enables you to specify whether or not the dbANYWHERE server can be manipulated remotely.



## Logging Properties

{button See Also,AL('The Timestamp Format dialog box;Network Properties;Errors Properties;Resources Properties;Tuning Properties;NT Service Properties',0,"","")}

The Logging tab of the Properties dialog box enables you to specify the contents and location of the dbANYWHERE log.

The screenshot shows the 'dbANYWHERE Server Properties' dialog box with the 'Logging' tab selected. The dialog has five tabs: Network, Logging, Errors, Resources, and Tuning. The 'Logging' tab contains three main sections: 'Log what', 'Log where', and 'Log to File'. In the 'Log what' section, there are two checkboxes: 'SQL statements' and 'Connection stats', both of which are unchecked. To the right of these checkboxes is a button labeled 'Timestamp format...'. In the 'Log where' section, there is a checkbox for 'Log to NT Event Log' which is unchecked. Below this is a sub-section 'Log to screen' containing two checkboxes: 'only when visible' and 'always', both unchecked. Below these is a text field labeled 'Keep most recent' with the value '4096' and the text 'messages.' to its right. In the 'Log to File' section, there is a checkbox which is unchecked, followed by the text 'Let file grow to' and a text field with the value '10' and the text 'megabytes.' to its right. Below this is a text field labeled 'Logfile path'. At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Help'.

### SQL statements

This checkbox enables you to specify whether or not to display SQL statements in the dbANYWHERE log.

### Connection stats

This checkbox enables you to specify whether or not to display connection statistics in the dbANYWHERE log.

### Timestamp format

This button displays the [Timestamp Format dialog box](#), which enables you to specify a format for timestamp values.

### Log to NT event log

This checkbox enables you to specify whether or not to write dbANYWHERE logging information to the Window NT event log. This feature is available only on Windows NT.

### Only when visible

This checkbox enables you to specify whether or not to log messages to the log window when the dbANYWHERE server window is minimized. If this box is not checked, dbANYWHERE will not log messages when the dbANYWHERE server window is minimized.

### Always

This checkbox enables you to specify whether or not dbANYWHERE always logs messages, regardless of the state of the dbANYWHERE server window (normal or minimized).

### Keep most recent

This field enables you to specify the size of the dbANYWHERE log buffer.

### Log to file

This checkbox enables you to specify whether or not to log messages to a file.

**Let file grow to**

This field enables you to specify the maximum size of the log file.

**Logfile path**

This field enables you to specify a path for the log file.





## Errors Properties

{button See Also,AL('Network Properties;Logging Properties;Resources Properties;Tuning Properties;NT Service Properties',0,',')} }

The Errors tab of the Properties dialog box enables you to specify the types of error messages reported by dbANYWHERE.

The screenshot shows the 'dbANYWHERE Server Properties' dialog box with the 'Errors' tab selected. The dialog has five tabs: Network, Logging, Errors, Resources, and Tuning. The 'Errors' tab contains two sections: 'Server Messages' and 'Client Messages'. Each section has six checkboxes: 'Product, Type', 'Message', 'DBMS SQL State', 'Error Code', 'Suggestion', and 'DBMS Error Code'. Below these sections is a 'Generate Error File' button. At the bottom of the dialog are 'OK', 'Cancel', and 'Help' buttons.

### Server Messages and Client Messages

These groups enable you to specify which elements of error messages to report to the server and client.

- |                         |   |
|-------------------------|---|
| <b>Product Type:</b>    | the name of the product that generated the error  |
| <b>Error Code:</b>      | the alphanumeric code that identifies the error   |
| <b>Message:</b>         | a brief description of the error  |
| <b>Suggestion:</b>      | provides a brief description of the steps to take to correct the error.                       |
| <b>DBMS SQL State:</b>  | the SQL state associated with a database error. The SQL states are based on X/OPEN standards. |
| <b>DBMS Error Code:</b> | the alphanumeric code that identifies the database error                                      |
| <b>DBMS Message:</b>    | a brief description of the database error   |

**Note:** Not all error messages have all the elements listed here. If the respective box is checked and the error message has that element, it will be reported.

### Generate Error File

This button generates a text file that contains all the errors you might encounter through dbANYWHERE. The file is called dbawerr.txt and is generated in the dbANYWHERE bin directory.



## Resources Properties

{button See Also,AL('Network Properties;Logging Properties;Errors Properties;Tuning Properties;NT Service Properties',0,'','')}

The Resources tab of the Properties dialog box enables you to specify resource usage properties for dbANYWHERE.

The screenshot shows the 'dbANYWHERE Server Properties' dialog box with the 'Resources' tab selected. The dialog has five tabs: Network, Logging, Errors, Resources, and Tuning. The Resources tab contains four sections: 'Limit connect time' with checkboxes for 'Disconnect client after' and 'or if idle for', each with a text box set to '0' and the unit 'minutes'; 'Limit simultaneous sessions' with a checkbox for 'User defined limit' and a text box set to '0'; 'Limit system resource usage' with a label 'Deny connections if available memory drops below', a text box set to '5' and the unit 'mbytes', and a status line 'Current available memory: 1529.151mb (96%)'; and 'Limit database connection resource usage' with a checked checkbox for 'Share connections for same user logins'. At the bottom are 'OK', 'Cancel', and 'Help' buttons.

### Limit connect time

This group enables you to specify whether or not dbANYWHERE automatically breaks connections based on time criteria you enter in:

- Disconnect client after  
Disconnect client after indicates that dbANYWHERE disconnects clients the specified number of minutes after connecting.
- If idle for  
If idle for indicates that dbANYWHERE disconnects clients that make no data requests for the specified number of minutes.

### Limit simultaneous sessions

This group enables you to limit the number of sessions dbANYWHERE allows.

- User-defined limit  
The user-defined limit indicates the maximum number of simultaneous dbANYWHERE sessions.

### Limit system resource usage

This group displays currently available system resources and enables you to specify the minimum level of available system resources required for dbANYWHERE to allow additional connections.

- Deny connections if available memory drops below  
The memory setting indicates the minimum level of available system resources required for additional connections. When system resources fall below this level, dbANYWHERE denies additional connections.

### Limit database connection resource usage

This group enables you to specify whether or not dbANYWHERE opens new database connections for multiple clients that use the same username and password.

- Share connections for same user logins  
This indicates that multiple clients using the same username and password also use the same database connection. If this

box is not checked, dbANYWHERE forces the database driver to open a new database connection instead of sharing an existing one.



## Tuning Properties

{button See Also,AL('The Large Datatype Memory Settings dialog box;Network Properties;Logging Properties;Errors Properties;Resources Properties;NT Service Properties',0,', ')} }

The Tuning tab of the Properties dialog box enables you to specify how dbANYWHERE handles large datatypes.



### Use files only

This radio button indicates that dbANYWHERE uses only files for buffers to hold large datatypes.

### Use files and memory

This radio button indicates that dbANYWHERE uses both files and memory for buffers to hold large datatypes.

### Settings

The Settings button displays the [Large Datatype Memory Settings dialog box](#), which enables you to specify the way dbANYWHERE uses memory in large datatype buffering.



## NT Service Properties

{button See Also,AL('The dbANYWHERE Service Manager;Network Properties;Logging Properties;Errors Properties;Resources Properties;Tuning Properties',0,"","")}

The NT Service tab of the Properties dialog box enables you to specify how dbANYWHERE operates in NT service mode. This tab is available only when dbANYWHERE has been [installed as an NT service](#).

The screenshot shows the 'dbANYWHERE Server Properties' dialog box with the 'NT Service' tab selected. The dialog has a title bar with a close button. Below the title bar are tabs for 'Network', 'Logging', 'Errors', 'Resources', 'Tuning', and 'NT Service'. The 'NT Service' tab contains a checkbox for 'Automatic start on system boot'. Below this is a 'Log On As' section with two radio buttons: 'System Account' (selected) and 'This Account:'. The 'This Account' section has three text input fields for 'User Name', 'Password', and 'Confirm Password'. At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Help'.

### Automatic start on system boot

Indicates whether or not to automatically start the dbANYWHERE Windows NT Service when you start or restart the system.

### System account

Indicates whether or not to use the system account. This is the default account.

### This account

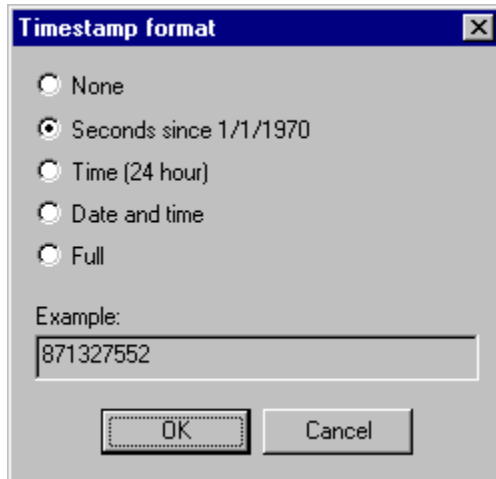
Indicates whether or not to use the account specified by the User Name and Password values. This account must have access to the database which means the database client software must be installed under the specified account.



## The Timestamp Format dialog box

{button See Also,AL('Logging Properties',0,';')}}

Each entry in the dbANYWHERE log has a timestamp value that indicates when the message was received. This dialog box enables you to specify a format for timestamp values by selecting one of the radio buttons.



The timestamp settings supported by dbANYWHERE include:

- |                                |   |
|--------------------------------|---|
| <b>None:</b>                   | indicates no timestamp for log entries                    |
| <b>Seconds since 1/1/1970:</b> | produces a value like, 871327552                          |
| <b>Time (24 hour):</b>         | formats as shown in the example: 15:24:29                 |
| <b>Date and time:</b>          | formats as shown in the example: Aug 11 15:24:29          |
| <b>Full:</b>                   | formats as shown in the example: Mon Aug 11 15:24:29 1997 |



## The Large Datatype Memory Settings dialog box

{button See Also,AL('Tuning Properties;JDBC data type mapping',0,';')}}

This dialog box enables you to specify the way dbANYWHERE uses memory in large datatype buffering.

The screenshot shows a standard Windows-style dialog box titled "Large Datatype Memory Settings". It features a close button (X) in the top right corner. The main area contains three rows of settings, each with a text label, an input field, and a unit label. The first row is "Initial memory size" with a unit of "megabytes.". The second row is "Maximum memory size" with a unit of "megabytes.". The third row is "Use file if data is larger than" with a unit of "kilobytes.". At the bottom of the dialog are two buttons: "OK" and "Cancel".

- Initial memory size  
This field specifies the size (in megabytes) of the initial memory allocation for buffering large datatypes.
- Maximum memory size  
This field specifies the maximum amount (in megabytes) of memory that dbANYWHERE can use for buffering large datatypes.
- Use file if data is larger than ...  
This field specifies the maximum size (in kilobytes) of the value of a large datatype that dbANYWHERE can buffer using memory. Values that exceed this size are buffered in files.



## The Data Source tool

{button See Also,AL('The Data Source Tool Test Window;Testing connectivity;Configuring database access',0,'')}  
{button See Also,AL('The Data Source Tool Test Window;Testing connectivity;Configuring database access',0,'')}

The dbANYWHERE Data Source Tool, shown below, enables you to setup data sources for use by dbANYWHERE.

**Note:** The data sources you create using this tool are available only to dbANYWHERE. To create standard ODBC data sources, use the Windows 32bit ODBC utility.

### To launch the Data Source tool:

Select Configure Data Sources from the dbANYWHERE group on the Start menu.

### Defined Data Sources

This text area lists data sources you have created using the Data Source Tool. It does not list ODBC data sources created using the Windows 32bit ODBC utility. Select a data source from this list to see its properties in the Selected Data Source fields.

### Selected Data Source

When you select a data source from the Defined Data Sources, the properties of the selected data source are displayed in the fields below.

#### Name

This field enables you to view and modify the name of the data source.

#### Description

This field enables you to provide a description of the data source.

#### Engine

This drop-down list enables you to select an Engine for the data source.

### Database Information Fields

The database information field(s) appear in the outlined region above and change dynamically, based on the currently selected engine, as described following:

- For predefined ODBC data sources only the Data Source field displayed; enabling you to provide the name of the ODBC data



source.

- For an SQL Server (Sybase and Microsoft) native data source, two fields are displayed, enabling you to provide the name of the Server and the Database.
- For an Oracle native data source, the Data Source Tool displays a second drop-down list, from which you can select the Protocol, and a text field, which enables you to enter the Server name. If you select one of the SQLNET V1 protocols, the Data Source Tool also displays a text field that enables you to provide its Instance.

### **Username and Password**

These fields enable you to optionally provide the username a password to be used to access the database. You should consider attaching a name and password so that you can restrict access to the database tables and to protect the contents of any tables in the database which you want to remain private.

### **dbANYWHERE Server URL**

This field displays the URL which is used by the Test window to test the connectivity of a data source. It is not saved with the rest of the data source information when you click the Save button.

### **New**

The New button clears all the data source fields to allow you to provide information for a new data source.

### **Save**

The Save button saves any changes you have made to the currently selected data source. If you are entering information for a new one, clicking the Save button creates the new data source.

### **Delete**

The Delete button permanently removes the currently selected data source.

### **Test**

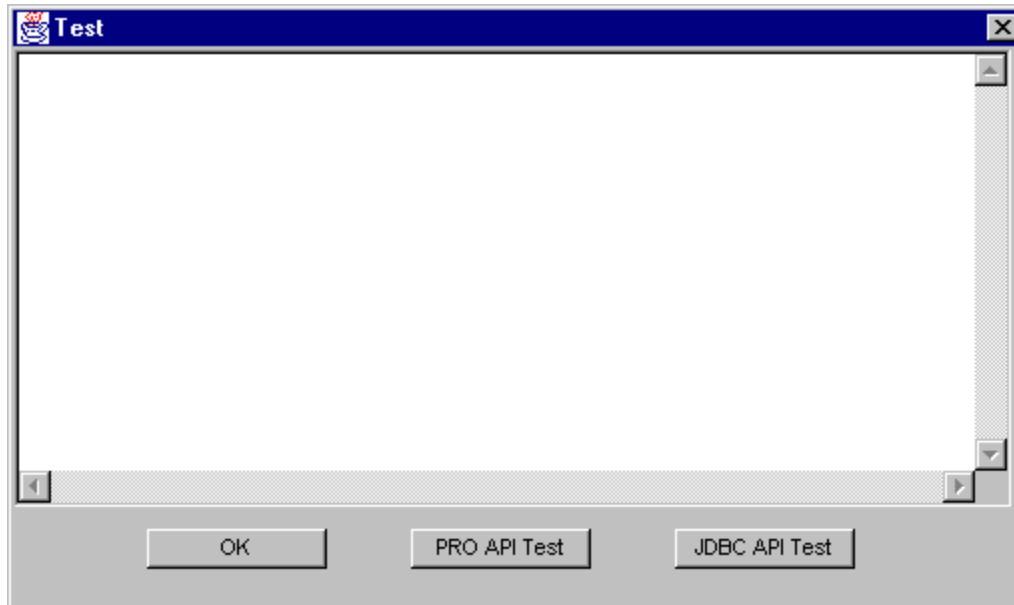
The Test button launches the [Test window](#), which enables you to perform connectivity tests on data sources you have created with the Data Source Tool.



## The Data Source Tool Test Window

{button See Also,AL('The Data Source tool;Testing connectivity;Configuring database access;The Test dbANYWHERE Data Source dialog box',0,'','')}

The Data Source Tool Test Window enables you to perform connectivity tests on data sources you have created with the Data Source Tool.



### JDBC API Test

The JDBC API Test button initiates the test using the JDBC API.

### PRO API Test

The PRO API Test button initiates the test using the dbANYWHERE API.

### OK

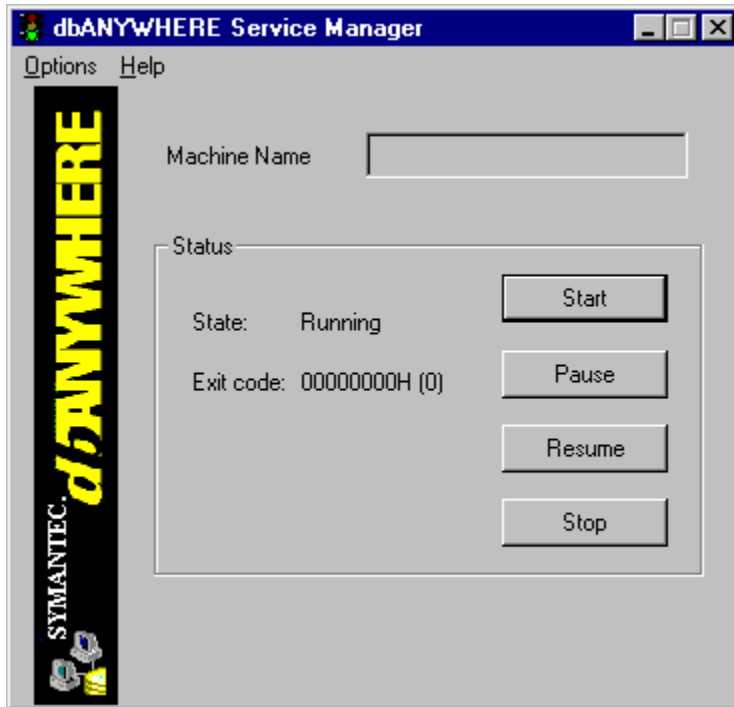
The OK button closes the Test window.



## The dbANYWHERE Service Manager

{button See Also,AL('NT Service Properties;Configuring dbANYWHERE as a Windows NT service;The dbANYWHERE Server Window',0,',')}  
{button See Also,AL('NT Service Properties;Configuring dbANYWHERE as a Windows NT service;The dbANYWHERE Server Window',0,',')}  
{button See Also,AL('NT Service Properties;Configuring dbANYWHERE as a Windows NT service;The dbANYWHERE Server Window',0,',')}

The dbANYWHERE Service Manager allows you to manage dbANYWHERE as a Windows NT Service. The following are descriptions of the various interface elements of the dbANYWHERE Service Manager.



### Machine Name

The Machine Name field shows the name of the machine that hosts the dbANYWHERE service.

### State

The State field shows the current state of the dbANYWHERE service.

### Exit Code

The Exit code field shows exit codes.

### Start

The Start button turns on the dbANYWHERE service.

### Pause

The Pause button temporarily pauses the dbANYWHERE service.

### Resume

The Resume button turns the dbANYWHERE service back on after it has been paused.

### Stop

The Stop button turns of the dbANYWHERE service.



## Options Menu

{button See Also,AL('The dbANYWHERE Service Manager;The Properties dialog box',0,'')} }

The commands in the Options menu enable you to set run-time options for dbANYWHERE and launch other useful tools.

### Launch Event Viewer

This menu item launches the Windows NT Event Viewer.

### Launch Performance Monitor

This menu item launches the Windows NT Performance Monitor.

### Install as Service

This menu item installs dbANYWHERE as a Windows NT service.

### Remove Service

This menu item removes dbANYWHERE as a Windows NT service.

### Properties

This menu item displays the dbANYWHERE [Properties dialog box](#), which enables you to specify run-time properties for dbANYWHERE.

### Exit

This menu item closes the dbANYWHERE Service Manager.





## Help Menu

{button See Also,AL('The dbANYWHERE Service Manager',0,';','')}

The commands in the Help menu provide access to dbANYWHERE online help and other useful facilities.

### Topics

This menu item displays the Help Topics dialog box, which provides access to dbANYWHERE online help.

### Sending Feedback

This menu item displays information about sending feedback to the dbANYWHERE team at Symantec.

### How to Order

This menu item displays information about how to order dbANYWHERE and other Symantec products.

### About Symantec dbANYWHERE Service Manager

This menu item displays the About box, which contains version, copyright, and other information for dbANYWHERE Service Manager.

### LiveUpdate

This menu item launches the LiveUpdate tool, which provides access to the latest updates available for dbANYWHERE products.

**Using\_dbANYWHERE\_Admin**

The dbANYWHERE Admin Tool is not supported in this release.



## Menu Commands

### dbANYWHERE Menus

[Log Menu](#)

[Options Menu](#)

[Help Menu](#)

### dbANYWHERE Service Manager Menus

[Options Menu](#)

[Help Menu](#)





## Support and Service Overview

{button See Also,AL(' Technical support;Electronic support;Customer service;Service and support headquarters;Worldwide service and support',0,'')}  
{button See Also,AL(' Technical support;Electronic support;Customer service;Service and support headquarters;Worldwide service and support',0,'')}

### Symantec service and support solutions

Symantec is committed to excellent service worldwide. Our goal is to provide you with professional assistance in the use of our software, wherever you are located.

Technical Support and Customer Service solutions vary by country. If you are outside the United States or Canada, please refer to [Worldwide Service and Support](#).

### Registering your Symantec product

If you ordered dbANYWHERE over the Web, you have already registered. If you did not order dbANYWHERE over the Web, you can use one of the following methods to register:

- n Use the toll-free fax number: 800-800-1438.
- n Register over the Web via the Customer Service Home Page at [www.symantec.com/custserv/cust1.html](http://www.symantec.com/custserv/cust1.html).

### Change of address

If your address changes, you can use one of the following methods to notify Symantec:

- n Use the toll-free fax number: 800-800-1438.
- n Change your address over the Web via the Customer Service Home Page at:  
[www.symantec.com/custserv/cust1.html](http://www.symantec.com/custserv/cust1.html)
- n Mail your new address to Customer Service:

Symantec Corporation  
Attn: Registration Dept.  
175 W. Broadway  
Eugene, OR 97401

### Product updates

Check the Symantec Web site ([cafe.symantec.com](http://cafe.symantec.com)) for updates to dbANYWHERE. After you have registered your copy of dbANYWHERE, you can use your login name and password to download patches and minor updates to your current version. If you bought your product in a box, the user ID and password are included with your package. If you bought your product online, the user ID and password are displayed to you on the screen.

### Old version support

When a new version of this software is released, registered users may receive upgrade information through electronic mail or the postal service. After the release of the new version, telephone support will be provided for the previous version for 6 months. Technical information for the older versions may still be available on the electronic services and automated fax retrieval system.

### Discontinued product support

When Symantec announces that a product will no longer be marketed or sold, telephone support will be discontinued 60 days later. Support will only be available for discontinued products through services such as our automated fax retrieval system or through documentation posted on electronic services such as the World Wide Web, Symantec BBS, CompuServe or America Online.



## Technical support

{button See Also,AL('StandardCare support;PriorityCare support;PremiumCare support;Support and Service Overview;Service and support headquarters;Worldwide service and support',0,', ')}  
{/button}

Symantec's Technical Support department offers several support options designed for your individual needs and to help you get the most out of your software investment. When you purchase dbANYWHERE, Symantec automatically provides you with StandardCare support. To extend your level of support, you can choose from Symantec's PriorityCare and PremiumCare services.

The phone numbers listed in [Service and support headquarters](#) are for support in North America. If you are outside the United States or Canada, please call the local Symantec office or distributor in your area, or refer to [Worldwide service and support](#).

For the most current information on Symantec Support Solutions, you can:

- Call Symantec's fax retrieval service (located in the United States) at 800- 554-4403 or 541-984-2490, and request document 070.
- Visit Symantec's Service and Support Center on the Web at [www.symantec.com/servsupp.html](http://www.symantec.com/servsupp.html).

[StandardCare support](#)

[PriorityCare support](#)

[PremiumCare support](#)



## StandardCare support

{button See Also,AL('Technical support;PremiumCare support;PriorityCare support',0,'','')}

All registered users of Symantec products are entitled to these services at no charge:

- Unlimited calls for 90 days (from the date of the first call) for installation assistance, configuration, and general usage questions. The phone number is 541-465-8470.  
Unlimited technical assistance through CompuServe and America Online. These forums offer electronic access to our technical support staff, libraries of sample files, technical notes, and bulletins. You will also find a rich interaction and information exchange with other users of Symantec software.
- Unlimited use of Symantec's Bulletin Board System (BBS). This download BBS is kept updated with sample files and product technical notes for quick and easy electronic access.
- Unlimited use of the Symantec Discussion Groups available from the Service and Support page on [www.symantec.com](http://www.symantec.com). These forums offer electronic access to our professional technical support staff, the Symantec knowledge base, FAQs, and announcements. The news server is at [service.symantec.com](http://service.symantec.com).
- Unlimited access to company information through the Internet. With a Web browser such as Netscape, you get the latest company news by entering the URL for Symantec's home page: [www.symantec.com](http://www.symantec.com).  
The Web site include links to our anonymous FTP site, where you can download the latest software patches and drivers for Symantec products. You can also FTP directly to the site by entering: [ftp.symantec.com](ftp://ftp.symantec.com). A user ID and password is required.
- Unlimited use of Symantec's automated fax retrieval system for instant printouts of technical notes, bulletins, product literature, and general information by fax.
- StandardCare Support is available Monday through Friday, 7:00 a.m. to 4:00 p.m. Pacific Time.

For your first 90 days of free technical support, please refer to the StandardCare Support (541) phone number in [Service and support headquarters](#).



## PriorityCare support

{button See Also,AL(' Technical support;StandardCare support;PremiumCare support',0,'')}  
{/button}

All registered users of Symantec products are entitled to these services on a “pay-as-you-go” basis:

- The PriorityCare 800-number is charged to your VISA, MasterCard, or American Express on a per incident basis.
- The PriorityCare 900-number is charged to your telephone bill on a per minute basis. (As of this writing, the charge is \$2 per minute, and an equivalent 900-number service is not available outside the United States.)
- Average hold time will be kept to a minimum.

PriorityCare Support is available Monday through Friday, 6:00 a.m. to 5:00 p.m. Pacific Time.

To use the PriorityCare 800- and 900-number services, please refer to those numbers in [Service and support headquarters](#).



## PremiumCare support

{button See Also,AL('Technical support;StandardCare support;PriorityCare support',0,'','')}

All registered users of Symantec products are entitled to these services on an annual subscription basis:

To order PremiumCare Gold or Platinum support, please contact Customer Service or your Symantec sales representative.

### PremiumCare Gold support

- Support for one year for up to ten incidents per year for any Symantec desktop product, with an option to add more incidents.
- Priority support on a toll-free 800 line.
- Average hold time will be kept to a minimum.
- Unlimited electronic mail support is provided at [support\\_javawin@symantec.com](mailto:support_javawin@symantec.com) with a 24-hour response time on working days. Please include your subscription ID with any e-mail.
- PremiumCare Gold Support is available Monday through Friday, 6:00 a.m. to 5:00 p.m. Pacific Time.

### PremiumCare Platinum support

- Unlimited calls on a toll-free 800 line.
- Average hold time will be kept to a minimum.
- A Support Center Manual with troubleshooting, installation, configuration, and usage information.
- Quarterly updates of technical notes and bulletins.
- Instant access to senior support staff.
- Automatic updates of inline software revisions. (Inline software revisions do not include version upgrades.)
- After hours and weekend support is also available to PremiumCare Platinum customers for an additional fee.
- PremiumCare Platinum Support is charged on an annual subscription basis per product family. The annual fee is for two subscribers; other subscribers can be added on a per person basis.  
PremiumCare Platinum Support is available Monday through Friday, 6:00 a.m. to 5:00 p.m. Pacific Time.
- Electronic support at [support\\_javawin@symantec.com](mailto:support_javawin@symantec.com).



## Electronic support

{button See Also,AL('Support and Service Overview',0,'','')}

Technical information is available 24 hours a day on electronic bulletin board systems (BBSs). Symantec provides access to its own Symantec bulletin board system, and maintains the Symantec forums on CompuServe and America Online.

### Symantec BBS

The Symantec BBS provides a Customer Service forum, shareware and public-domain software, "Frequently Asked Questions" (FAQs), and support forums where you can exchange tips and information with other users. Settings for the Symantec bulletin board are: 8 data bits, 1 stop bit, and no parity.

- n 300- through 14,400-baud modems: 541-984-5366
- n 300- through 28,800-baud modems: 541-484-6669

### CompuServe

You can exchange information and ideas with Symantec representatives and with other users of Symantec products on the CompuServe bulletin board.

To access the Symantec forums on CompuServe

- n Type GO SYMANTEC at any ! prompt.

To access the dbANYWHERE Symantec forums on CompuServe

- 1 Type GO SYMDEV at any ! prompt.
- 2 Look for the dbANYWHERE forum.

For additional information, or to subscribe in the United States and Canada, please call CompuServe at 800-848-8199. Outside the United States and Canada, please call 1-614-718-2800. Check with CompuServe for data communications settings.

### America Online

To access the Symantec bulletin board on America Online

- n Type the keyword SYMANTEC.

For additional information, or to subscribe in the United States and Canada, please call America Online at 800-227-6364. Check with America Online for data communications settings.

### Symantec technical support Web pages

Use your Web browser to go to [www.symantec.com](http://www.symantec.com) and go to the Service and Support page, or go directly to [service.symantec.com](http://service.symantec.com). Here you can review the Frequently Asked Questions, search the Symantec Knowledge Base for known solutions to problems previously encountered, or go to Ask a Tech to participate in a discussion group.

- n Symantec discussion groups

Symantec representatives are ready to answer your questions via our support discussion groups. All messages posted will receive a response from a Symantec representative within 48 hours. The discussion groups are similar to electronic bulletin boards where you post a message and then return later to find an answer.

- n Symantec newsgroups

Multiple search and browse options are available for viewing previously posted messages. A link to Usenet newsgroup support forums is also available on the dbANYWHERE Ask a Tech page. These require that you have a newsreader available. You can also use the news server, [service.symantec.com](http://service.symantec.com).

The following dbANYWHERE discussion groups are available:

- n [symantec.support.devtools.pc.dbanywhere.announce](#)
- n [symantec.support.devtools.pc.dbanywhere.install](#)
- n [symantec.support.devtools.pc.dbanywhere.using](#)
- n [symantec.support.devtools.pc.dbanywhere.jdbc](#)

### Automated fax retrieval system

Symantec provides two automated fax retrieval systems which you can use 24 hours a day. You can call from any touch tone phone to receive a list of the system's documents and then have any of these documents faxed to you.

- n Technical Support automated fax retrieval system

The Technical Support automated fax retrieval system provides technical application notes and "how to" samples. The Technical Support fax number is 541-984-2490.

To receive a list of Symantec offices and worldwide service and support partners, call the Technical Support fax retrieval number, choose Option 2, and request Document 1400.

- n Customer Service automated fax retrieval system

The Customer Service automated fax retrieval system provides general product information, data sheets, and product upgrade order forms. The Customer Service fax number is 800-554-4403.



## Customer service

{button See Also,AL('Support and Service Overview;Service and support headquarters;Worldwide service and support',0,',')} }

Symantec's Customer Service department builds and maintains long-lasting customer relations through consistent, expert service. Our Customer Service department is available to help you:

- Order an upgrade.
- Subscribe to the technical support solution of your choice.
- Fulfill your request for product literature or demonstration disks.
- Find out about dealers and consultants in your area.
- Replace missing or defective pieces (disks, manuals, etc.) from your package.
- Get status on an order or a return.
- Update your product registration with address or name changes.
- Replace lost passwords or user IDs.

You can reach Customer Service at 800-441-7234 or on the Web at [www.symantec.com/custserv/cust1.html](http://www.symantec.com/custserv/cust1.html).

For specific questions about how to use your Symantec software, please contact Technical Support.

## Replacing a CD-ROM

If the dbANYWHERE CD-ROM is damaged or unusable, you can obtain a replacement.

To receive a replacement or refund for a product purchased through a reseller, please visit or contact the authorized dealer from whom you purchased the product.

If you ordered the product or upgrade directly from Symantec and wish to receive an replacement or refund in accordance with our 60-day money back guarantee, please return your CD-ROM and a letter including a brief explanation for the return. Please send by traceable means, such as UPS or FEDEX, to:

Symantec Corporation  
ATTN: RMA Dept.  
175 West Broadway  
Eugene, OR 97401

## Recovering passwords

If your user ID and password become inoperative, send a message to Customer Service at [custserv@symantec.com](mailto:custserv@symantec.com) with your name, address, daytime phone number, ID, and password and we will resolve the situation for you within 24 to 48 hours. Type the following in the subject field of the message:

Cafe 1.5 DL Reset

If you lose your dbANYWHERE ID, send a message to Customer Service at [custserv@symantec.com](mailto:custserv@symantec.com). If your information does not appear in our registration database, we will provide additional avenues so you can verify ownership of the product.



## Service and support headquarters

{button See Also,AL('Support and Service Overview;Worldwide service and support',0,'','')}

Symantec's service and support headquarters for North America is at:

Symantec Corporation  
175 W. Broadway  
Eugene, OR 97401

### Technical support

StandardCare Support	541-465-8470
PriorityCare 800 Support	800-927-4014
PriorityCare 900 Support	900-646-0004

Post a message in the dbANYWHERE discussion group at  
[www.symantec.com/techsupp/index.html](http://www.symantec.com/techsupp/index.html).

### Customer Service

USA and Canada	800-441-7234
All other locations	541-334-6054
Fax	541-984-8020





## Worldwide service and support

{button See Also,AL('Support and Service Overview;Service and support headquarters',0,'','')}

Symantec provides technical support and customer service worldwide. Services vary by country and include International Partners (IPs) who represent Symantec in regions where there is no Symantec office. Most IPs provide customer service and technical support for Symantec products in your local language, as close to your home or office as possible.

If your country is not listed in "International Locations" below, please call our Technical Support automated fax retrieval service, located in the United States, at 541-984-2490, choose Option 2, and request Document 1400.

### International locations

Every effort has been made to ensure the accuracy of this information. However, the information contained herein is subject to change without notice. Symantec Corporation reserves the right for such change without prior notice.

#### European headquarters

Symantec Europe Ltd.  
Kanaalpark 145  
2321 JV Leiden  
The Netherlands

Headquarters Tel.	(31) (71) 535 3111
Headquarters Fax	(31) (71) 535 3150
Customer Service Tel.	(31) (71) 535 3294
Technical Support: Dutch Tel.	(31) (71) 579 4407
Technical Support: French PC/Mac Tel.	(33) (1) 41 38 69 80
Technical Support: French Mac Tel.	(33) (1) 41 38 69 81
Technical Support: German Tel.	(49) (211) 9917 110
Technical Support: English Tel.	(44) (1628) 788 580
Technical Support: Other countries Tel.	(31) (71) 579 4425
Technical Support Fax	(31) (71) 535 3153
International BBS (up to 14.4 baud)	(31) (71) 535 3169
Automated fax retrieval (24 hrs.)	(31) (71) 535 3255

#### Asia/Pacific Rim region

Symantec Australia Pty. Ltd.  
408 Victoria Road  
Gladesville, NSW 2111  
Australia

Headquarters Tel.	(61) (2) 9850 1000
Headquarters Fax	(61) (2) 9850 1001
Technical Support Tel.	(61) (2) 9879 6577
Technical Support Fax	(61) (2) 9879 6594
BBS Tel.	(61) (2) 9879 6322
Automated fax retrieval (24 hrs.) Tel.	(61) (2) 9817 4550

#### Mexico

Symantec Mexico  
Rubén Darío No. 36, Piso 2, OFNA 6  
Colonia Chapultepec Polanco  
11560 México, D.F.

Headquarters Tel.	(52) (5) 545 1234
Headquarters Fax	(52) (5) 531 2252
Technical Support	For Technical Support call the automated fax retrieval service, located in the United States, at 541-984-2490, and request Document 1400.

**Japan**

Symantec Japan, Inc.  
Pine Bldg. 6F  
3-1-2, Shibuya, Shibuya-ku  
Tokyo 150 JAPAN

Tel. (81)03-3498-1118  
Fax (81)03-3498-1124



## Glossary

[applet](#)

[application](#)

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[Java file](#)

[Java Archive \(JAR\) file](#)

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[JavaBeans](#)

[ODBC](#)

[package](#)

**applet**

Special type of Java program that you can add to a Web page. To run an applet, add the applet to a Web page and display the Web page in a Java-enabled Web browser or the appletviewer.

**application**

Java program you can run from a computer that has a Java Virtual Machine.

**client**

Computer that sends database access requests to a dbANYWHERE Server.

**database template**

Forms which are pre-designed. You can choose amongst these by using the dbAWARE Template Wizard. When you do, the corresponding table is created in the specified database. Each Visual Cafe database template is designed for a different kind of information.

**data source**

Component which contains the information for creating a database connection, including the name of the database, its server, and its network location. Before you connect to a database in a Visual Cafe project, you typically create a data source for it. Sometimes a data source is called a DSN (Data Source Name).



**dbAWARE component**

Visual Cafe component that has additional properties for binding the component to a database row, column, table, or result set.

**dbNAVIGATOR**

Browser window which shows the servers, data sources, and contents of the data sources that are connected to those servers. You can also use the dbNAVIGATOR perform drag-and-drop operations on your forms and components. To see the dbNAVIGATOR:

**Java file**

File that contains components and Java source code.

**Java Archive (JAR) file**

Archive file (optionally compressed) that complies with the JavaBeans standard. It is the primary method for delivering JavaBeans components. For example, a JAR file can contain one or more related beans, and any support files, including classes, icons, graphics, sounds, HTML documentation, serialization files, and internationalization files. You can deploy applets and applications from a JAR file. In Visual Cafe, to use the JavaBeans components in a JAR file, you must first add the file to the Component Library.

**Java VM: Java Virtual Machine**

Interprets Java at runtime. The Java VM contains a bytecode translator which converts class files into instructions that the client machine can execute, and library routines that a Java program calls.

**JavaBeans**

A standard for creating portable, cross-platform components.

**ODBC**

A standard interface for communicating with databases. The dbANYWHERE server uses this interface to communicate with many of the databases it supports. The dbANYWHERE server also communicates to other major database types through direct native calls to the client APIs (application programming interfaces) for those databases. ODBC is the acronym for Open DataBase Connectivity.

**package**

Group of classes and interfaces. It is both a way of organizing code and a library of code. You can view the source files and packages of a project in the Package view of the Project window.





## Troubleshooting a dbANYWHERE connection

{button See Also,AL('Troubleshooting a Data Source connection;Configuring database access;Creating a driver configuration file;Testing connectivity',0,'')}  
file;Testing connectivity',0,'')}

Some common errors stem from an incorrect URL string. The URL must specify either the dbANYWHERE Server machine's IP address or machine name. If you are using DHCP (an automatic IP address assignment feature provided on some networks), your dbANYWHERE Server machine's IP address may be different each time you start the machine.

If you receive the message "DataBase.connectServer() : Unable to connect. java.lang.NullPointerException," or "Exception from DataBase.connectServer() : Invalid subname syntax near <database>", check your dbANYWHERE Server machine's URL.

The URL must also contain the appropriate reference to the dbaw protocol, a valid database driver, and database name. Don't forget to check that the host PC is accessible on the network.



## Troubleshooting a Data Source connection

{button See Also,AL('Configuring database access;Testing connectivity;Troubleshooting a dbANYWHERE connection',0,'','')}

A database connection error may be caused by a number of different problems. The first step is to make sure that the dbANYWHERE Server machine can connect to the database. Testing this depends on the type of database client libraries needed and the protocol being used; use a utility to try connecting to the database (such as ISQL or DBPING). If dbANYWHERE can't connect to the database, the problem is most likely being caused by something other than dbANYWHERE. If you were able to connect, then you may not have the correct database connection information.

The `driverManager.getConnection()` class requires a method call to `System.setProperties()`, which violates the Java applet/browser security model (see "Java In A Nutshell" by David Flanagan (O'Reilly), pg. 198). An alternative approach is to use the `driver.connect()` class, as specified by JavaSoft's JDBC v1.1 specification which is at <http://splash.javasoft.com/jdbc/>.

### Local Data Sources

Since a local database engine may consume a large percentage of your PC resources, you may not have enough RAM and/or a large enough swap file to facilitate the auto-start feature. Manually start the database before attempting to access it, and you should be able to connect in most cases.

### Troubleshooting a specific Data Source

[Microsoft Access](#)

[Microsoft SQL Server](#)

[ODBC Data Source](#)

[Oracle Server](#)

[Sybase SQL Anywhere](#)

[Sybase SQL Server](#)



## Troubleshooting Sybase SQL Anywhere

{button See Also,AL('Troubleshooting a Data Source connection;Troubleshooting Sybase SQL Server',0,'')}  
{button See Also,AL('Troubleshooting a Data Source connection;Troubleshooting Sybase SQL Server',0,'')}

- 1 Make sure the PATH environment variable includes the bin directory in which the client software is installed.
- 2 Verify connecting to the ODBC Data Source by using either ODBC Test or the Microsoft Query tools.
- 3 Verify the user name and password.



## Troubleshooting Microsoft Access

{button See Also,AL('Troubleshooting a Data Source connection;Troubleshooting Microsoft SQL Server',0,';')}

Microsoft Access ODBC errors may be due to conflicting versions of the Microsoft Access engine and ODBC vendor drivers, as well as using a combination of 16-bit (Windows 3.x) and 32-bit (Windows 95/NT) software. We recommend that you use 32-bit software for Windows '95/NT as often as possible, as 16-bit applications require more overhead.

- 1 Verify connecting to the ODBC Data Source by using either ODBC Test or the Microsoft Query tools.
- 2 Verify the user name and password.



## Troubleshooting an ODBC Data Source

{button See Also,AL('Troubleshooting a Data Source connection;Handling an ODBC Data Source',0,'')}}

This topic describes troubleshooting an ODBC Data Source that is connected via a third-party ODBC driver.

- 1 Make sure the connection to the remote database is possible using vendor supplied utilities. For example in the above case, try to connect using ISQL to connect to the SQL Server database.
- 2 Try connecting to the ODBC Data Source using the 3rd party ODBC driver using ODBC Test or the Microsoft Query tools.
- 3 Verify the user name and password.



## Troubleshooting Sybase SQL Server

{button See Also,AL('Troubleshooting a Data Source connection;Creating a driver configuration file;Troubleshooting Sybase SQL Anywhere',0,'','')}

### Common causes of SQL Anywhere connection errors

- Your machine does not have sufficient memory to auto-start the database engine.
- The SQL Anywhere installation is not configured properly.

### Troubleshooting

- 1 Make sure the 32-bit Sybase client software for the appropriate OS (Windows95 or NT) is installed.
- 2 Make sure the full path where the client DLLs and EXEs exist is in the PATH environment variable.
- 3 Verify connecting to the remote database from the client using vendor supplied WISQL32 or SYBPING utilities.
- 4 Verify the user name and password.



## Troubleshooting Microsoft SQL Server

{button See Also,AL('Troubleshooting a Data Source connection;Creating a driver configuration file;Troubleshooting Microsoft Access',0,'','')}

If you are getting Microsoft SQL Server errors, check your configuration for SQL Server client software and ensure it is correct (keep in mind that for 4.2, the default is named pipes). For best results, we recommend using TCP/IP.

In addition, there is a limitation in the Microsoft SQL Server library ("db-library") which does not allow our current driver implementation to maintain two or more open statements per connection. The queries must be processed serially, or else an error such as "attempt to initiate process with results pending" occurs.

- 1 Make sure the Microsoft SQL Server 32-bit client software is installed.
- 2 Make sure the directory containing the Microsoft SQL Server client DLL's is included in the PATH environment variable.
- 3 Verify your connection by connecting to the remote database using the SQL Server utilities (i.e. ISQL).
- 4 Verify the user name and password.



## Troubleshooting Oracle Server

{button See Also,AL('Troubleshooting a Data Source connection',0,'','')}

If you are receiving connection errors with Oracle Server for Windows 95 and dbANYWHERE, you are probably using an old version of the dbANYWHERE Oracle Server drivers. There are now separate drivers for Windows 95 and Windows NT. See the Java Central Web page ([http://www.symantec.com/product/index\\_devtools.html](http://www.symantec.com/product/index_devtools.html)) or Symantec Technical Support for details on getting updated drivers.

- 1 Make sure the Oracle Server client software for the appropriate OS (Windows95 or Windows NT) is installed.
- 2 Make sure the full path where the client DLLs and EXEs exist is in the PATH environment variable.
- 3 Verify the URL for appropriate usage of Protocol.
- 4 Verify connection to the remote database using vendor supplied utilities like SQLPLUS, Oracle Enterprise Manager etc.





## Troubleshooting a callable statement

{button See Also,AL('Troubleshooting a Data Source connection;Troubleshooting a dbANYWHERE connection',0,'','')}

The following CallableStatement methods do not work for some third-party ODBC drivers if you escape process the stored procedure:

- n setTimeStamp( )
- n setTime( )
- n setDate( )

## Errors



## Handling an SQL exception

{button See Also,AL('Handling a post-connection error;Handling a Web browser error;Handling firewall conflicts',0,';')}}

Check to see if your IP address or machine name is correct and your [CLASSPATH](#) environment variable on the dbANYWHERE Server machine refers to all of the classes required by the applet.

If a Data Source operation throws a SQL exception, the SQL exception object provides vendor-specific error information. See the JDBC Specification for a description of the SQL exception object. To resolve a SQL exception, see your Data Source's documentation.



## Handling a post-connection error

{button See Also,AL('Handling an SQL exception;Handling a Web browser error;Handling firewall conflicts',0,'','')}

If you are receiving connection errors/exceptions (such as "Method Verification Error", "Security Violation", or "Illegal Access Error") the source of the problem could be due to several different factors.

- 1 Make sure that your dbANYWHERE Server machine URL and Data Source URL are correct.
- 2 To run an applet from another machine, you need to have Web server software configured and running on the dbANYWHERE Server machine. Otherwise you'll always get a "Security Violation" error.
- 3 The classes that your applet refers to might not be available. Make sure that your [CLASSPATH](#) environment variable includes the directories that contain your class files or packages.
- 4 Since Java is a new technology, each Web browser supports Java differently. Your browser might not be capable of downloading the class files your applet requires. One way to get around this problem is to uncompress the class file and recreate the directory structure it contains, located below the directory where the applet is stored.
- 5 The "IllegalAccessError" error can occur when an applet tries to use an invalid machine name (such as a bad IP address).



## Handling a Web browser error

{button See Also,AL('Handling an SQL exception;Handling a post-connection error;Handling firewall conflicts',0,'')}

If your dbANYWHERE Server machine URL and Data Source\_URL are correct and the dbANYWHERE Server machine can connect to a database, the error is probably not due to the database configuration being used; browser errors are much more likely to be the problem. There are differences in the behavior of commercial browsers, in part due to the implementation of security protocols in each version. Some of the browsers may deny downloading more than one package, or can only read classes that have been extracted.



## Handling firewall conflicts

{button See Also,AL('Handling an SQL exception;Handling a post-connection error;Handling a Web browser error;Troubleshooting a Data Source connection',0,'','')}

Since clients can access the Web via sockets, clients behind a firewall should have no problems extending beyond their Intranet. If you are using applets, however, you'll be restricted to connecting back to the hosting IP address (due to Java /browser restrictions). The firewall prevents outside clients from connecting to servers behind the firewall. To get access through a firewall, see your system administrator.



## JDBC data type mapping

The following topics show the mapping between SQL data types and Java data types.

### Data type mapping for specific Data Sources

[Microsoft Access](#)

[Microsoft SQL Server](#)

[ODBC](#)

[Oracle Server](#)

[Sybase SQL Anywhere](#)

[Sybase SQL Server](#)



## Oracle Server data type mapping

Oracle Server data type	JDBC data type
CHAR(size)	CHAR
DATE	<u><a href="#">TIMESTAMP</a></u>
LONG	LONGVARCHAR
LONG RAW	LONGVARBINARY
MLSLABEL	BINARY
NUMBER(p, s)	DECIMAL(p, s)
RAW(size)	BINARY
ROWID	BINARY
VARCHAR2(size)	VARCHAR





## Microsoft SQL Server data type mapping

Microsoft SQL Server data type	JDBC data type
binary(n)	BINARY
bit	BIT
char(n)	CHAR
datetime	<u>TIMESTAMP</u>
decimal(p, s)	DECIMAL
float(n)	FLOAT
image	LONGVARBINARY
int	INTEGER
money	DECIMAL
numeric(p, s)	NUMERIC
real	REAL
smalldatetime	DATE
smallint	SMALLINT
smallmoney	DECIMAL
text	LONGVARCHAR
timestamp	BINARY
tinyint	TINYINT
varbinary(n)	VARBINARY
varchar(n)	VARCHAR



## Sybase SQL Server data type mapping

Sybase SQL Server data type	JDBC data type
binary(n)	BINARY
bit	BIT
char(n)	CHAR
datetime	<u><a href="#">TIMESTAMP</a></u>
decimal(p, s)	DECIMAL
float(n)	FLOAT
image	LONGVARBINARY
int	INTEGER
money	DECIMAL
numeric(p, s)	NUMERIC
real	REAL
smalldatetime	DATE
smallint	SMALLINT
smallmoney	DECIMAL
text	LONGVARCHAR
timestamp	BINARY
tinyint	TINYINT
varbinary(n)	VARBINARY
varchar( n)	VARCHAR



## Sybase SQL Anywhere data type mapping

Sybase SQL Anywhere data type	JDBC data type
binary(size)	BINARY
char(size)	CHAR
character varying(size)	VARCHAR
character(size)	CHAR
date	DATE
decimal(p, s)	DECIMAL or NUMERIC
double (double precision floating point)	DOUBLE
float (single precision floating point) See Note #1.	FLOAT or REAL
int	INTEGER
integer See Note #2.	INTEGER
long binary	LONGVARBINARY
long varchar	LONGVARCHAR
numeric(p, s)	DECIMAL or NUMERIC
real (single precision floating point) See Note #1.	FLOAT or REAL
smallint	SMALLINT
time	TIME
timestamp	<u><a href="#">TIMESTAMP</a></u>
varchar(size)	VARCHAR

### Note #1: float and real

Some Sybase SQL Anywhere float and real values are incorrectly rounded or truncated for insert and update statements. Thus, some real and float values entered through a Java applet are stored as different values in the database. You can observe this problem by using the Sybase SQL Anywhere ISQL utility and executing SQL data modification statements. There is no workaround for this problem. The only solution is for Sybase to update the SQL Anywhere database engine.

### Note #2: integer

Sybase SQL Anywhere's integer data type has the following range:

-2,147,883,648 to 2,147,883,647

However, SQL statements for Sybase SQL Anywhere cannot handle the -2,147,883,648 value. They can handle all other values (-2,147,883,647 and above).



## Microsoft Access data type mapping

Microsoft Access data type	JDBC data type
Binary	BINARY
Bit	BIT
Byte	TINYINT
Counter (auto-increment)	INTEGER
Currency	DECIMAL
Datetime	<u><a href="#">TIMESTAMP</a></u>
Double (double precision floating point)	DOUBLE
Long	INTEGER
Long Binary	LONGVARBINARY
Long Text	LONGVARCHAR
Short	SMALLINT
Single (single precision floating point)	FLOAT
Text	CHAR



## ODBC data type mapping

{button See Also,AL('Handling an ODBC Data Source',0,'','')}

This topic covers the data type mapping for dbANYWHERE's direct ODBC driver. For data type mapping for the generic ODBC drivers, see your third-party ODBC driver documentation.

<u>ODBC data type</u>	<u>JDBC data type</u>
SQL_BIGINT	BIGINT
SQL_BINARY	BINARY
SQL_BIT	BIT
SQL_CHAR	CHAR
SQL_DATE	DATE
SQL_DECIMAL	DECIMAL
SQL_DOUBLE	DOUBLE
SQL_FLOAT	FLOAT
SQL_INTEGER	INTEGER
SQL_LONGVARBINARY	LONGVARBINARY
SQL_LONGVARCHAR	LONGVARCHAR
SQL_NUMERIC	NUMERIC
SQL_REAL	REAL
SQL_SMALLINT	SMALLINT
SQL_TIME	TIME
SQL_TIMESTAMP	<u><a href="#">TIMESTAMP</a></u>
SQL_TINYINT	TINYINT
SQL_VARBINARY	VARBINARY
SQL_VARCHAR	VARCHAR



## **TIMESTAMP**

TIMESTAMP uses the 24-hour format.

<b><u>TIMESTAMP value</u></b>	<b><u>Meaning</u></b>
1997-02-05 11:00:00.000000000	11:00 AM on 2/5/97
1997-02-05 13:00:00.000000000	1:00 PM on 2/5/97

## **Nanoseconds**

java.sql.Timestamp uses a 9-digit nanosecond format. Examples:

<b><u>Nanosecond value</u></b>	<b><u>Meaning</u></b>
000000123	123 nanoseconds
123	123,000,000 nanoseconds

