Attaché Server ODBC Installation and User Guide

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Section 1 – Overview

The Attaché BI database can be accessed using the Attaché Server ODBC drivers delivered with the installation programs. The ODBC driver was created by FairCom Corporation who are the developers of the c-treeACE 10.0 client-server product which underpins Attaché BI .

> **Note** – ODBC stands for Open Database Connectivity and is a standard C programming language middleware API for accessing database management systems (DBMS).

ODBC versions

The Attaché Server ODBC drivers are available in both 32-bit and 64-bit versions. The version you install will be dependent on the applications from which you wish to run ODBC rather than the operating system installed on your PC.

For example, if you are using Microsoft Office 2010 (32-bit) you will need to install the 32-bit ODBC driver regardless of your operating system or your processor. Naturally, if you are running a 64-bit version of Office you will already have a 64-bit OS and a 64-bit CPU so you will install the 64-bit ODBC driver.

> **Tip** – To check whether you have 32- or 64-bit Office installed, open one of your MS Office applications and go to Help on the File menu. Under About… you will see the version number with either 32-bit or 64-bit in brackets.

Section 2 – Installing ODBC

You will need to install the appropriate ODBC driver at every workstation where you intend to use it. As a general principle you would install as Administrator and make the driver available to all users.

> **Note** – You can install both versions of the ODBC driver on the one workstation if you NEED both 32-bit and 64-bit access to the Attaché database. However, we recommend that you only install the driver appropriate to your version of Microsoft Office or other third party reporting tools.

For Terminal Server, you need to install ODBC once at the server and then it will be available for all Terminal Server sessions that log in.

Installation Process

The installation sequence is as follows:

1   Right-click and install using **Run as administrator**.

2   The InstallShield Wizard will prepare the setup.

3   When the prep is finished, the Welcome page displays.

Click the **Next>** button to continue.

4   In the **Setup Type** screen, select **Custom**.

Click the **Next>** button to continue.

5   In the **Choose Destination Location** screen, accept the default destination folder:

   C:\Program Files\Attache Software\Attache ODBC

Click the **Next >** button to continue.

6   In the **Select Version** screen, pick the version of Attaché BI that is running on the computer.

7   Click the **Install** button to begin the installation.

8   The progress bar in the Setup Status screen will display until completion.

9   When the installation is complete, the following screen will display.

10   Click the Finish button to close the InstallShield Wizard.

Licensing ODBC

Attaché ODBC's licensing is controlled by your Attaché BI licensing agreement. Each time you run Attaché ODBC you will be required to provide valid Attaché credentials to allow you to connect to the server. Connecting to the server in this way will consume one of your Attaché BI logins[1].

About DSNs

The easiest way to connect to your Attaché BI data using ODBC is to create one or more DSNs which contain all of the information required to enable the querying application to retrieve the desired data.

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[1] If you are already logged in to the server through Attaché BI and you access ODBC from the same workstation or TS session, your ODBC connections will be added to your existing connection count rather than consuming a new Attaché BI licence. There are a maximum of 128 concurrent database connections under each individual user login to the server.

DSN stands for data source name (or database source name). DSNs are data structures used to describe a connection to a data source. DSN attributes may include, but are not limited to:

- name of the data source
- directory of the data source
- name of a driver which can access the data source
- user ID for data access (if required)
- user password for data access (if required)

There are two kinds of DSN:

- Machine DSNs - stored in collective configuration files and/or system resources
- File DSNs - stored in the file system with one DSN per file

  Which can be further broken down into:

  - System DSNs - accessible by any and all processes and users of the system, stored in a centralized location
  - User DSNs - accessible only by the user who created the DSN, stored in a user-specific location
  - Attaché ODBC uses machine DSNs and we recommend that you create System (rather than USER) DSNs so as not to limit access to just the user who was logged in to the work station when the DSN was created.

Section 3 – Creating ODBC DSNs

To create a DSN you will need to run the Windows ODBC Data Source Administrator. This can be accessed through **Control Panel | All Control Panel Items | Administrative Tools | Data Sources** (ODBC).

Microsoft Windows has different ODBC Data Source Administrators for its 32-bit and 64-bit operating systems. If you run the Administrator from Control Panel it will launch the version which corresponds to your operating system. To run the 32-bit version under the 64-bit OS, you will need to locate the appropriate executable (odbcad32.exe) which you will find in the WINDOWS\SysWOW64 folder.

> **Tip** – If you are using 32-bit Microsoft Office to access your Attaché data on 64-bit Windows, why not create a desktop shortcut to odbcad32.exe to save you finding it every time.

Configuring c-treeACE ODBC Data Sources

Once you invoke the ODBC Data Source Administrator, select the System DSN tab. A list of system DSNs will be displayed. Select Add to create a new DSN.

From the list of drivers displayed, select the c-treeAce ODBC driver and click Finish.

You will now need to give your DSN a name and complete details of the data connection and user credentials.

Item	Description / Notes
DSN Name	A local name for the c-treeACE ODBC data source for use in connect calls and by the ODBC administrator.
DSN Description	Optional descriptive string.
Host	Specify the machine name on which the Attaché Server is running. If it is this machine you can use localhost as the machine name.
Database	Name of the database where the Attaché data source resides.
User ID	User name and password for connecting to the database - must be valid Attaché BI login. You can leave these fields blank if you want the user to be prompted when the application connects.
Password	See User ID
Service	The name of the service that c-treeACE SQL listens to. Normally (port) 6597.
Preserve Cursor	Leave as default.
Client Character Set	Leave as default.
Options	Leave blank.

Modifying and Deleting c-treeACE ODBC Data Sources

You can modify or delete a c-treeACE ODBC data source after you add it by invoking the ODBC Data Source Administrator and selecting the c-treeACE ODBC data source you want to modify or delete.

When you modify a data source, the ODBC Data Source Administrator modifies the entry for the data source name you specify. For example, you could modify a c-treeACE ODBC data source to change the user name and password that connections use.

When you delete a data source, the ODBC Data Source Administrator deletes the entry for that data source. (Deleting a data source has no effect on any database, only on ODBC's information.)

Section 4 – Using ODBC data sources in applications

Most applications which can access data via ODBC have some form of query builder installed. For example, Microsoft Excel allows you to invoke MS Query to attach to your data while Microsoft Access and Attaché ReportDesigner each have their own

custom query builders. Generally, the query is saved automatically when you save the spreadsheet, report or database you have been working on.

The query builder will allow you to designate the appropriate DSN and select the required data (tables and fields). In most query builders you can also link related tables and perform data selection and sorting.

To access data in MS Excel, choose Data from Other Sources | From Microsoft Query and select your datasource (DSN) from the list of databases.

In Microsoft Access you can either link tables or create a pass-through query.

Attaché BI data structures

The Attaché BI database server stores all of your data in a series of tables contained in separate databases representing each of your Attaché company datasets. For example, if your Attaché data is organised so that you have four companies – Accounts, Payroll, Last Year Accounts and Last Year Payroll – the database server will contain four separate databases – e.g. ACCOUNTS; PAYROLL; LAST_YEAR_ACCOUNTS; LAST_YEAR_PAYROLL.

The tables inside the database exactly reflect the data files that previously resided in your company data folders. For each table there is one or more related indexes which make it easier for Attaché BI to retrieve data for enquiry and reports.

Within the database the tables and fields (columns) are given names which are designed to assist programmers in quickly identifying what data the table contains and what the fields are used for. These table and field names do not necessarily reflect the labels on the tasks and screens seen by the user.

To make it easier for users to access data through ODBC, we have created VIEWS which more exactly reflect the user's view of the data. This means that someone viewing customer masterfile data, for example, could select a view called customer_master and see fields such as code, name, contact, street, suburb and postcode. These VIEWS also allow the data in the table to be formatted before it is presented to the user – for example, a decimal field might only display two decimals or a text field containing Y or N might be presented as a Boolean True/False.

As well as VIEWS, you can directly access the native TABLES. These are presented exactly as they appear in the database and have not been masked or formatted in any way. When looking at your data using ODBC, tables will be prefixed with tbl_.

One final set of data you can now access is the OPTIONS data previously stored in the SYS file and unavailable via ODBC. For example you can now select a view called systemcustoptions1 and systemcustoptions2 which contain the Customer Options including ageing headings, terms headings, default GL set, default bank account and so on.

Section 5 – Dealing with legacy queries and reports

Following the upgrade of Attaché Accounts from a distributed file system (c-tree 4.3) to an SQL client-server database (c-treeACE 10.0) it will be necessary to recreate all Attaché DSNs and to modify any stored ODBC queries to reflect the new data location selected in the changed DSNs.

Also, while the VIEWS available in Attaché BI have been configured to very closely replicate the data structure which was available in the old Attaché ODBC DSN Administrator, it has been necessary to change some field (column) names because their use is restricted in c-treeACE SQL. This includes fields previously labelled Date or Column.

This will mean that you may also need to modify some existing queries to replace the old field name with the new compliant name. For example, the old Date field in the Purchase Order Detail table has been renamed datepaid.

Before creating your new DSNs you will need to identify all currently active DSNs. This will involve making a list of database configuration files from your Attaché program folder (look for files with the extension .db) and then trying to identify the workstations on which they were created so that you can remove them. Don't worry too much if you cannot locate and remove them – just be aware that you may need to recreate them.

Next you will need to create the required DSNs as System DSNs on each workstation at which you intend to use them with ODBC. Be sure to create the DSNs with exactly the same name as the ones you are replacing so that they are available to your application query builders. As you create the new System DSNs you can remove the old User DSNs.

Once you have created the required DSNs you can start to reconfigure your application queries. For Microsoft Excel this requires opening the spread sheet and selecting the option to edit the query in MS Access; it is easier to relink any external tables.

For example, in MS Excel 2010, from the Refresh drop-down on the Design ribbon, select Connection Properties | Definition. You will note that the Connection String has already been modified to cater for the new System DSN. Go to the bottom of the Command Text and replace the FROM string (e.g. FROM "C:\attache\".CUSTOMER_MASTER CUSTOMER MASTER) with FROM admin.table_name table_name (e.g. FROM admin.CUSTOMER_MASTER CUSTOMER_MASTER).

> **Note –** You may also need to select Modify Query where a field used in the query has a different name in the new database.

In MS Access 2010, select ODBC Database from the External Data ribbon to Link to the data source by creating a linked table. Choose the appropriate DSN from the displayed list of Machine DSN and then select the table you wish to link. Delete the linked table you wish to replace and rename your linked table to the name of the table you just deleted.

Section 6 – Using ODBC to write back to data

Attaché Server ODBC is configured to allow read access to all data stored in each company database. It is also configured to allow write access to a very limited number of tables.

As a general rule, only masterfile tables can be updated using ODBC. That is, it is not possible to update transaction or options tables other than via the Attaché BI user interface. As a further restriction, it is only possible to insert rows (add records) to masterfiles which have not external dependencies such as a foreign key.

So, it is possible to add a new customer to the customer masterfile using ODBC write, but it is not possible to add a new customer delivery address (as the delivery address is linked to the customer by the customer code). However, it is possible to modify (update) the data in the customer delivery once a record has been added through Customer Delivery Address Maintenance.