Exporting Orixa data to an Excel Spreadsheet using ODBC

ODBC stands for Open DataBase Communication. It is a standard for communication of data. In day-to-day use you will access all the data you have added to Orixa via your Orixa App. However, if you wish to go further and start to access Orixa data from other business software this can be done using Orixa's ODBC driver which can run an ODBC Service on your server computer.

This page details the steps needed start an ODBC Service to allow other applications to access your Orixa Data. The first step is to set up an "ODBC Connection" to the Orixa database on your Server Computer, which is described below.

Once the ODBC Service has been created, SQL Queries can be written in programs such as Excel to view and analyse Orixa data.

Excel starts from the assumption that you will be accessing a single data-table, but Orixa is highly relational, so it is seldom useful to link in this way. Therefore in this article the advanced Excel method of linking using a "Data Connection" with a "Definition" that includes SQL will be used. While this is more technical, once the steps are understood it is not difficult.

If you are not confident to write the SQL it may be possible to copy SQL that is suitable from a Resource in your App, or ask your Developer to craft SQL for you.

All Orixa App ODBC connections are Read-Only, meaning you can never damage or change Database data in Excel.

Different roles for Orixa and programs such as Excel

Your Orixa App provides a good way to enter and edit data. It organises the structure of your data and makes sure all data entry is valid. Day-to-day data-management is also easy with Orixa, and you can find data and link data much more easily. Staff can use data to enter data in your Orxia App, and much day-to-day analysis can be done with it.

However there are many situations where it is good to have data in other programs, particularly Excel. A very large number of Users understand Excel extremely well and many have good skills organising, presenting and analysing data in Excel, and Excel's features for data presentation and analysis are phenomenal.

Coupling Orixa and Excel creates a potential positive relationship. Excel is not so well suited to data management, data entry, control of dataintegrity and validation. Also Excel is not built to be a multi-user data-entry system.

Once you have an ODBC service set up for Orixa Excel is not the only program that can be used to access the data, there are many other Business Information tools that can also use

Adding the ODBC driver on your computer

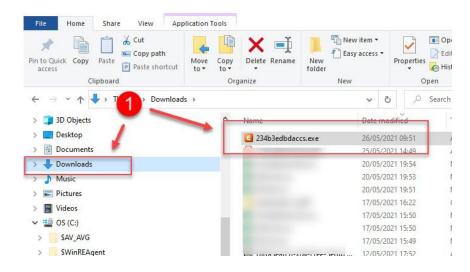
What you will need before you begin

- 1. The ODBC Installer.
- 2. Orixa Database Server running on your server computer.
- 3. The full connection details for the server, including its IP Address, Port Number and connection password.

This process has 3 steps. Installing the ODBC Driver, setting up the ODBC driver within Windows, and then setting the connection details for the ODBC driver so that users can see it. The process is technical, but it is not difficult if you do each step in order following this procedure.

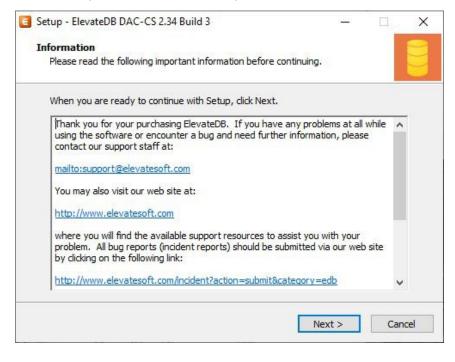
Note that while there are a lot of steps, once the driver is set up and installed you never have to run through the steps again. The driver will run permanently on your server and will support as many connections as you want to any number of spreadsheets or other data-connections.

1. Install the driver onto the computer



ODBC Installer Utility

Please ask Orixa to send you a copy of their ODBC installer utility. This will have a name such as "234b3edbdaccs.exe", double click on it to run it. Note that this sometimes triggers an anti-virus program, but this should not stop the installation. Please amend your anti-virus program to allow the Installer Utility to run if installation is interupted.



ODBC Driver Installation

The window above will then show, click "next", and repeatedly click "Next" until the installation is complete. There are not usually any changes needed to be made in the installation process, but you can pick custom locations for the installed files if you wish.

2. Run the ODBC Installation Process to link the driver to your data

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Best match CDBC Data Sources (32-bit) App Apps CDBC Data Sources (64-bit) Search the web	2	ODBC Data Sources (64-bit) App
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P ODBC		

Accessing the ODBC Data Sources installation tool in Windows

- 1. Press the Windows Key and type "ODBC"
- 2. Windows should show a list of installed programs (extra programs apart from those on the list above may appear on your computer). Click on "ODBC Datasources (64-bit) and the window in the following image will appear.

	System DSN Sources:	File DSIN	Univers	Tracing	Connection Poo	oling A	bout		
Name		Platform	Driver				Y	A <u>d</u> d	
dBASE Files Excel Files		N/A 64-bit	Microsoft Access dBASE Driver (*.dbf, *. Microsoft Excel Driver (*.xls, *.xlsx, *.xlsm					<u>R</u> emove	
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Windows ODBX Driver Utility

- 1. Click "Add" to open the window that allows you to add additional ODBC Datasources.
- 2. Note the "Configure" button (currently greyed out) if you need to adjust the settings of your ODBC installation (for example to change the Port Number) you would click here.

	Name		Version
	ElevateDB 2 0	DBC Driver	2.34.00
01110	Microsoft Acces	ss Driver (*.mdb, *.accdb)	16.00.1
	Microsoft Acces	ss Text Driver (*.txt, *.csv)	16.00.1
	Microsoft Excel	Driver (*.xls, *.xlsx, *.xlsm, *.xlsb)	16.00.1
	SQL Server		10.00.1
	<		>

New ODBC Datasource window

 New ODBC Data Source window. Select the Item with the name "ElevateDB ODBC Driver" and click "Finish", this creates the new data source window, but you must then set up the connection details in the following screens.

Configure Data Source			×
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svat	Name MyOrixaApp Description		Read-Only
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	Click Next to continue, or Ca	ncel to <mark>e</mark> xit.	•
About		C	Next > Cancel

Configure ODBC step 1

- 1. The Configure Data Source window opens. Enter a memorable name, this will be the name you see when you access the data source from Excel or other programs.
- 2. Click Next.



Configure ODBC Step 2

1. Select "Remote" as the connection option.

2. Click "Next"



Configure ODBC Step 3

- 1. Pick the Character Set used in your database. If you use a "Unicode" (non A to Z alphabet) language, pick this, otherwise use "ANSI".
- 2. Click Next



Configure ODBC Step 4

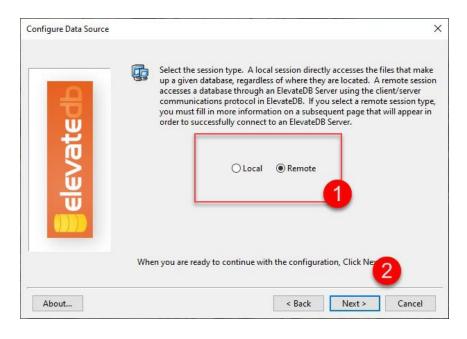
1. Set the "Signature" for the server. Note this is 'orixa-server', a hypen is used between the two words.

2. Click Next.

Configure Data Source	×
elevatedb	Select the session type. A local session directly accesses the files that make up a given database, regardless of where they are located. A remote session accesses a database through an ElevateDB Server using the client/server communications protocol in ElevateDB. If you select a remote session type, you must fill in more information on a subsequent page that will appear in order to successfully connect to an ElevateDB Server.
About	When you are ready to continue with the configuration, Click Net 2

Configure ODBC Step 5

- Add the connection location for the server program, usually this is an IP Address or 127.0.0.1 or 192.168.1.255, and a Port between 12010 and 12020. Please check the settings on your server before you enter this.
- 2. Click Next.



Configure ODBC Step 6

Enter your User Name and Password, and click "Next."

The screen which follows setting the User Name and Password allows you to set other configuration setting such as "timeouts" and "compression", you will usually leave these settings as they are. The defaults are usually fine, just click Next.

Configure Data Source	×
elevated	Select the session type. A local session directly accesses the files that make up a given database, regardless of where they are located. A remote session accesses a database through an ElevateDB Server using the client/server communications protocol in ElevateDB. If you select a remote session type, you must fill in more information on a subsequent page that will appear in order to successfully connect to an ElevateDB Server.
W	hen you are ready to continue with the configuration, Click Net 2

ODBC Step 7

- 1. Select the name of the Orixa database you wish to retrieve data from. This is usually the "Data" database, unless you have set up your Orixa App with a non-standard name.
- 2. Click Next.

NOTE: If an error is made in the previous steps, when you reach this stage the drop-down list of database names will be blank, and you may receive an error message "unable to connect", if this happens please use the "back" button(s) to go over prior steps and check all details have been entered correctly.

After the database name selection there is five more screens which rarely needs any changes. The first allows you to set a "row locking protocol", others enables setting of various fine-grained control of the database, leave all these screens unchanged and click Next.

	Data Source A							
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ODBC Utility with Orixa Driver installed

- 1. Newly Installed Driver present and available to be accessed by Windows Programs.
- 2. "Configure" button is now activated. Note that clicking this will take you back to the multi-page Installer utility shown in previous steps. If any changes are needed to your installation you can access them here.

3. Creating a spreadsheet with a link to your Orixa App

Excel is always changing. By the time you read this the detailed information it provides may be out of date, if a new version of Excel has changed the precise steps.

This should not be a problem, if you search on-line you should find a document which shows the steps with the latest version of Excel. Search for "adding an ODBC data connection to excel" or "Importing data into Excel using ODBC".

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Excel Data Importation Step 1

- 1. Open a new spreadsheet and find the "Data", tab and click "Get Data"
- 2. Select From Other Sources
- 3. Select From ODBC

From ODBC	a
Data source name (DSN)	
dBASE Files	
dBASE Files	
Excel Files	
MS Access Database	
MyOrixaApp	OK Cancel

Excel Add ODBC data source

- 1. In the small window that appears, click the drop-down to show the list of data-sources.
- 2. Select the one you created in the previous steps.

From ODBC						
Data source name (DSN)						
dBASE Files						
Advanced options						
Connection string (non-credential properties	s) (optional)	0				
Example: Driv						
SQL statement (optional)						
SELECT W.ID, O.Name as Customer, S.FullName as "Status", C.ShortName as "Contract", T.Name as ItemType, W.DateDone, EXTRACT(Month FROM W.DateDone) as EXTRACT(Year FROM W.DateDone) as W.HoursWorked, W."Value", COALESCE(CAST(W.Name as VARCHAR(P.FullName as "Staff",	"Year",		em,			< >
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(None) *	Detect				6	
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Creating ODBC Query data source in Excel

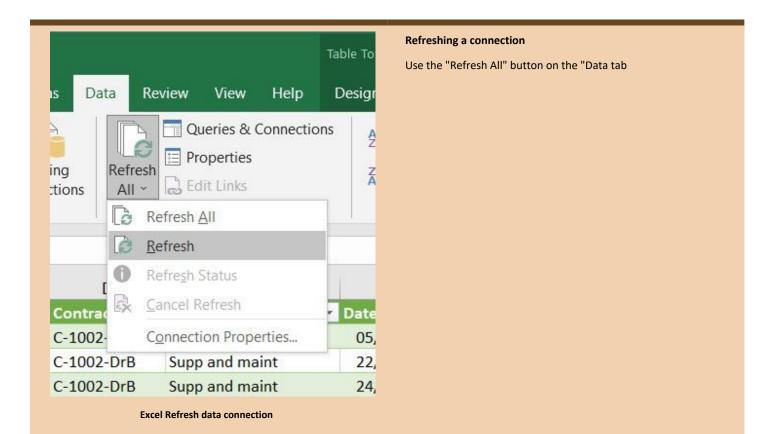
- 1. Once you have closed the Drop-down for the data source name, you can then click the tiny arrow on the **left** of "Advanced options" and the window will expand in size to show additional options.
- 2. Paste a SQL statement from your App or Developer in the SQL window.
- 3. Click OK. A page will open showing you a preview of the data, and giving you the option to "transform" it. Ignore this step and just import the data into your spreadsheet.

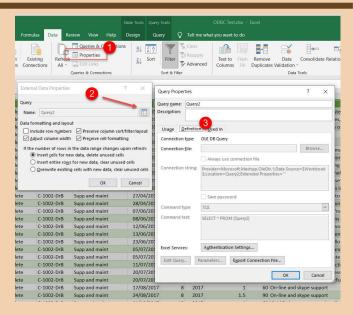
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10802	03. Complete	C-1002-DrB	Supp and maint	22/03/2017	3	2017	0.25						
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10808	03. Complete	C-1002-DrB	Supp and maint	10/04/2017	4	2017	2						
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10827	03. Complete	C-1002-DrB	Supp and maint	17/08/2017	8	2017	1						
10828	03. Complete	C-1002-Dr8	Supp and maint	24/08/2017	8	2017	1.5						
10829 10831	03. Complete 03. Complete	C-1002-DrB C-1002-DrB	Supp and maint Annual Upgrade	01/10/2017 01/11/2017	10	2017 2017	0.5						
10832	03. Complete	C-1002-DrB	Annual Upgrade	01/11/2017	11	2017	0.5						
10820 10821	03. Complete	C-1002-DrB	Sys extension	03/07/2017	7	2017	18 1						
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10833	03. Complete	C-1003-DrB	Supp and maint	10/01/2018	1	2018	2.5						
10834 10835	03. Complete 03. Complete	C-1003-DrB C-1003-DrB	Supp and maint Supp and maint	11/01/2018 22/01/2018	1	2018	1.5						
10837	03. Complete	C-1003-DrB	Supp and maint	28/01/2018	1	2018	0.5						
10839	03. Complete	C-1003-DrB	Supp and maint	05/02/2018	2	2018	2						
10840 10841	03. Complete 03. Complete	C-1003-DrB C-1003-DrB	Supp and maint Supp and maint	26/02/2018 09/05/2018	2	2018	0.25						
10846	03. Complete	C-1003-DrB	Supp and maint	15/05/2018	5	2018	1.5						
10847	03. Complete	C-1003-DrB	Supp and maint	20/05/2018	5	2018	2						
10849 10850	03. Complete 03. Complete	C-1003-DrB C-1003-DrB	Supp and maint Supp and maint	22/05/2018 09/06/2018	5	2018	0.25						
10851	03. Complete	C-1003-DrB	Supp and maint	08/08/2018	8	2018	1						
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10854	03. Complete	C-1003-DrB	Annual Upgrade	13/10/2018	10	2018	1						
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10842	03. Complete	C-1003-DrB	Sys extension	11/05/2018	5	2018	4						
10843	03. Complete	C-1003-DrB	Sys extension	14/05/2018	5	2018	3						
10845 10848	03. Complete 03. Complete	C-1003-DrB C-1003-DrB	Sys extension Sys extension	16/05/2018 21/05/2018	5	2018 2018	3						
10844	03. Complete	C-1004-Dr8	Annual Upgrade	15/05/2018	5	2018	2.5						
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10860	03. Complete	C-1004-DrB	Supp and maint	20/02/2019	2	2019	1.25			-			
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10866	03. Complete	C-1004-DrB	Sys extension	18/09/2019	9	2019	4						
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12331	02. Active	C-1005-DrB	Supp and maint	16/03/2020	3	2020	4		-				
25715 25718	02. Active 02. Active	C-1005-DrB C-1005-DrB	Supp and maint Supp and maint	04/03/2020 09/03/2020	3	2020	2						
27571	02. Active	C-1005-DrB	Supp and maint	16/03/2020	3	2020	0.5						
28217	02. Active	C-1005-DrB	Supp and maint	26/03/2020	3	2020	0.5		-				
28360 28385	02. Active 02. Active	C-1005-DrB C-1005-DrB	Supp and maint Supp and maint	27/03/2020 27/03/2020	3	2020 2020	0.25						
28418	02. Active	C-1005-DrB	Supp and maint	29/03/2020	3	2020	0.75						
28472	02. Active	C-1005-Dr8	Supp and maint	30/03/2020	3	2020	0.25						
29085 29110	02. Active 02. Active	C-1005-DrB C-1005-DrB	Supp and maint Supp and maint	08/04/2020	4	2020	1.5						
31391	02. Active	C-1005-DrB	Supp and maint	22/04/2020	4	2020	0.15						
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34914 35472	02. Active 02. Active	C-1005-Dr8 C-1005-Dr8	Supp and maint Supp and maint	21/05/2020 01/06/2020	5	2020	0.75						
35589	02. Active	C-1005-DrB	Supp and maint	02/06/2020	6	2020	1.5						
35591	02. Active	C-1005-Dr8	Supp and maint	03/06/2020	6	2020	1						

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Normal Practice when using data from Orixa in Excel

- 1. Import one or more data-sets of data as shown above. These will appear in the spreadsheets as large tables of data. If the SQL is well written they will show data you need.
- 2. Save the spreadsheet. You can now add additional Sheets to this spreadsheet, or use references to this query-sheet in other spreadsheet files.
- 3. The data is up-to-date at the time you created the sheet. You may need to**refresh data** from time to time to ensure it is up-to-date.
- 4. Keep the newly imported dataset selected, then click the **Insert** tab in the Excel menu to show options to display the data in **pivot table** or **chart** format.





Updating the Properties of the Query

- 1. Click Properties in the "Data" tab
- 2. Click the tiny "Properties" icon on the right of the Properties window.
- 3. The Query Properties window opens, allowing you to make wide-ranging changes to the query.

Excel Query Properties

