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MYOB EXO Business

EXO Headstart Training

Beginners Clarity Reporting



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This training manual has been developed by the MYOB Enterprise Division - Professional Services Team for use in the delivery of training.

This manual uses a simple step-by-step approach to give you the skills and knowledge necessary to create Clarity files your EXO Business system.

This manual has been designed for the following MYOB product:

- EXO Business

MYEBCLB

Clarity (Beginners')

EXO Business

Course duration: 1 Day

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Edition: **8.4**

Participants

This course is aimed at:

- Users of EXO Business.

Prerequisites

Basic PC experience is required.

Understanding of payroll processes and procedures.

Instructional method

The instructional method combines trainer-led demonstrations with hands-on student practice. You will work through a series of examples. Each unit concludes with a Review Task.


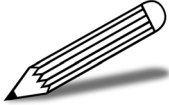








Conventions used in this manual

- Objects such as buttons or icons that you must click or select are shown in **bold**.
- Information to be entered (typed in) is shown in ***bold and italics***.
- Keyboard keys are shown as **TAB**, **CTRL**, etc.

Screenshots in this manual are for illustration purposes only and may differ from those in the actual product due to configuration settings.

This manual assumes a basic understanding of databases and a general understanding of the operation and table structure of EXO Business. For more information on these topics, refer to 'Appendix A - Database Primer' on page 94 and 'Appendix B - Key EXO Business Tables' on page 96.

Symbols used in this manual

Symbol	Name	This symbol tells you...
	Practice task Review task	... to complete a task to practice the skills you have just learnt, or as a review task at the end of the unit to consolidate what you have learnt.
	Written Review task	... to complete written questions to review the content covered in the unit.
	Optional Challenge	... to complete this task if you have finished early and are looking for an extra challenge.
	Tip	... about helpful tips
	Note	... to take note of an important message.
	Warning	... about potential problems to be aware of.
	Important	... to pay attention to an important notice.
	New	... where features are new for EXO Business.
	Reference	... where to go to find more information.
	Skills Checklist	... to tick off a list of skills that you have learnt during the unit.

Objectives

In this course you will learn how to use Clarity to create your own custom files.

Upon completion of this course you will be able to:

- Identify Clarity form types
- Navigate around Clarity tabs
- Understand Canvas and Palette usage
- Create Data sets
- Add fields to a report
- Position and Alignment
- Utilise Grouping
- Add correct parameters
- Join Multiple Tables
- Create Calculated Fields
- Limit content via the search tab
- Specify Sort Orders
- Use the Report Wizard
- Hide Bands & Fields
- Create Merge files

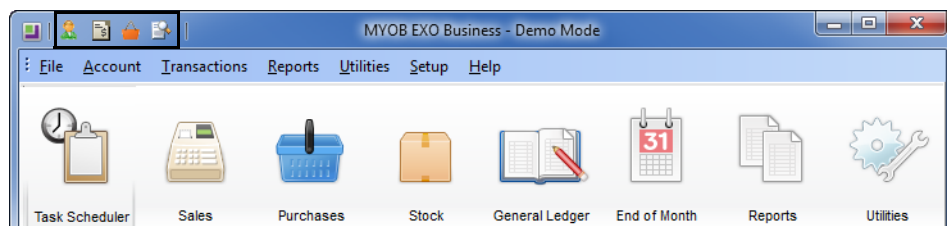
Navigational & Function Keys

MYOB EXO Business can be navigated by keyboard or mouse, however a combination of both is generally used. The standard keyboard conventions for Windows are used, with a few MYOB EXO Business-specific options.

Windows Navigation Keys	
TAB	Moves from field to field, column to column
SHIFT+TAB	Moves backwards from field to field, column to column
ENTER	On open dialogue boxes, automatically select the OK button.
ARROW KEYS	Moves around a grid, or up and down a list.
PAGE UP, PAGE DOWN	Moves between the "sections" of some screens, such as moving from the invoice header to the body to the end.
ALT + (Underlined Letter)	ALT key plus the underlined letter on a field label activates that function, e.g. ALT + N within a the debtor account screen creates a New Debtor.

Shortcut Menus

A shortcut menu is available at the top of the main window of each EXO Business module. This menu offers quick access to commonly used functions, e.g. accessing the Debtors Masters, accessing the Stock Masters, creating a new Sales Order, etc. Any menu item that has a shortcut key assigned will automatically appear in the shortcut menu.



Shortcut Menus

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Orientation

1

In this unit you will learn how to navigate around Clarity.

By the end of this unit, you will be able to:

- ▶ Identify Clarity form types
- ▶ Familiarise yourself with all work tabs
- ▶ Canvas set up
- ▶ Understand palette tools
- ▶ Utilise drop down menu options

Overview

Clarity is the MYOB EXO Business report writer especially written for use with Exo Business. The Report Designer is the application you will use to build EXO Business reports.

Clarity Report Types

There are four kinds of clarity report types in EXO Business.

Clarity reports (.CLR)

This is the most commonly used report type. Each CLR can have its own set of runtime parameters stored as a .CLS file and can be run from a menu, the command line, custom buttons, etc. CLR files can be given any name and there can be any number of them

Clarity Business Forms (.CLF)

Specific Clarity Forms are identified with specific functions within EXO Business. These are essential business forms that are part of the usual business workflow. In contrast, Clarity Reports (CLRs) can be placed on the EXO Business menu or run via the command line.

A few notable exceptions exist however. Examples include where you are using a variety of invoice forms and they are specified by on the Debtor Account Details > Details 2 tab - Invoice file number - e.g. Invoice1.CLF, Invoice2.CLF - or if you have set up your system to prompt you to select from a list of formats when you save an invoice or sales order.

Another characteristic of a CLF file is that it is automatically passed a single key value, such as a transaction record number or an account number to the data pipeline named *Master* in your CLF definition.

For example:

EXO Business will pass the DR_Trans Seqno to the file named Invoice.CLF. Therefore the DR_Trans.Seqno field must be in the data pipeline named "Master" on the data tab in Clarity.

Clarity Merge Files (.CLM)

CLM files are used to produce clarity merge files. These are similar to Mail Merge in Microsoft Word, which incorporate data fields.

Clarity Email Files (.CLE)

CLE Files are used along side certain CLF files to produce default email Subject & Body text.

Example:

When sending out an invoice, you can have a default message that accompanies the pdf file.

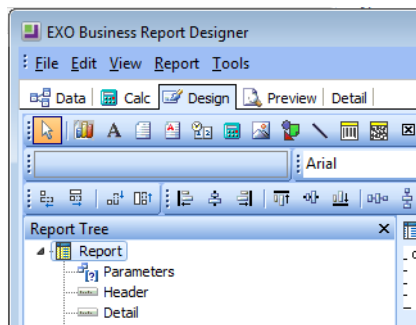
NOTE

Refer to the Clarity Report Masters document for a listing of the currently supported CLR, CLF & CLM files.

Report Designer Tabs

Clarity contains four main tabs:

- Data
- Design
- Preview, and
- Detail
- Calc, which is reserved for more advanced development.



Clarity Main Tabs

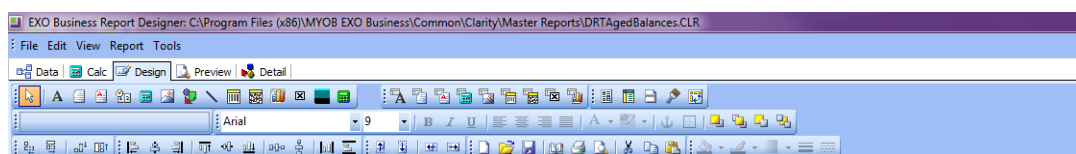
Design Tab

When first loaded, the EXO Business Report Designer defaults to the **Design** tab workspace. This is where you will spend the majority of your report-building time.

The Design workspace is divided into two areas:

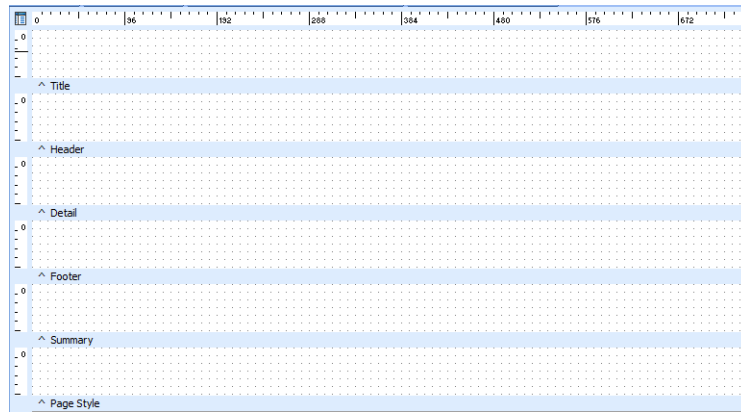
- the workbench, and
- the canvas.

The workbench comprises toolbars, component palettes, rulers and other tools that can be used to manipulate the canvas.



Clarity Main Palette

The canvas is the area that contains the report layout. This is where we place the bands (or sections) and components that will ultimately control the content of each page of the report.



Clarity Canvas

Band	Description
Title	The Title band contains the title of the report and prints on the first page only.
Header	The header band prints at the top of each page.
Detail	The detail band prints once for every row of data.
Footer	The footer band prints its on the bottom of each page.
Summary	The summary band prints once at the end of a report. The band is typically used to summarize data.
Page Style	The page style band allows you to set components (for example, images or watermarks) as a background for each page of your report. This is typically only used in advanced reports.

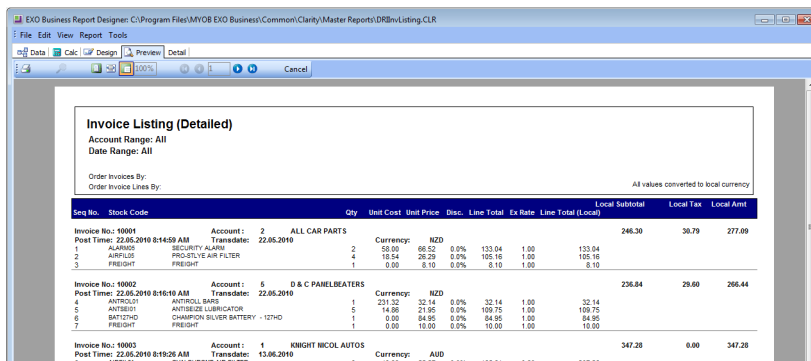
All bands, with the exception of the Detail band, can be either shown or hidden by selecting or unselecting the appropriate option under the **Report** menu.

Preview Tab

The Preview tab plays an integral role in the report-creation process. It allows you to see how the report will look when printed.

As you work through the tutorials, you'll notice that this tab is frequently accessed so that we can see how the report is progressing. We will make many changes and corrections based on what we see in this tab.

The tools in this tab allow you to view each page of the report or zoom in to get a better look at a specific page. You can browse on screen or you can print the report from the preview tab.



Preview Tab

Data Tab

The Data tab is the key to successful report creation. It allows us to select and manipulate the source data needed for a given report. These tasks are accomplished via two visual tools:

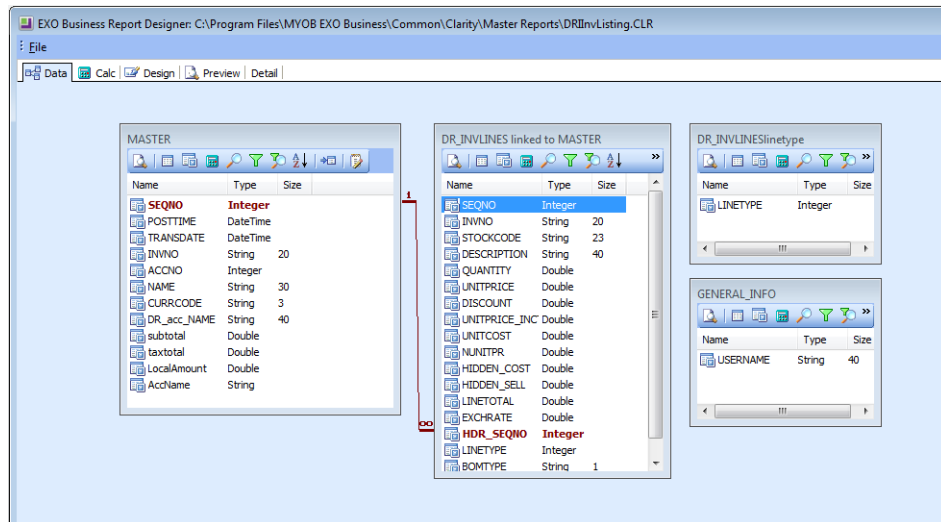
- the Query Wizard, and
- the Query Designer.

These tools greatly simplify the often-difficult task of data selection by giving us the ability to select data without requiring too much in-depth knowledge of the underlying EXO Business database structures.

Either of these methods can be used to achieve the same result. The Wizard leads the user step-by-step through the process, whereas the designer is a quicker way for more advanced users to select the data they want.

The options on the main drop down menus at the top of the screen change when you move to this tab. By selecting one or more tables and joining these tables where needed, *Data pipelines* can be constructed containing only the data required in your report. This gives the benefit of speed, as the subset of data is smaller and any heavy processing is performed on the server.

The example below shows the data tab with a number of data pipelines. The coloured lines between the data pipelines represent the links between them. They link specific fields to each other and are often slower than the table joins within the data pipelines, but there are extra benefits with these, which will be explained later.



Data Tab

Detail Tab

This tab is the equivalent of the powerful Report to Grid option in early EXO Business versions. It displays the data obtained from the data source that has been selected for the primary detail. The specific EXO Business component procedure can be selected when double-clicking on the line in the details band of the report.

All the usual options of Account Maintenance, Stock Item Maintenance, General Ledger Account, Sales & Purchase Order and Invoice are available. User profile security policies will still apply when these functions are called.

The dropdown list entitled **Click To** should be changed to select what you would like to drill down to.

For example:

In a Debtors Invoice Listing Report it is possible to drilldown to either the Debtors Account or the Debtors Invoice.

Seqno	Posttime	Transdate	Inveno	Acctno Name	Currcode Name_2	dr_trans_subtotal_dr_tran	
1	22.05.2010	8:16:10...	10002	5. 5. C & C PANELBEATERS	NZD	236.84	Debtor Account
2	22.05.2010	8:19:26...	10003	1. 1. ALFRED NICOL AUTOS	AUD	347.275	Creditor Account
3	03.06.2010	7:55:32...	10004	3. 3. AUSSIE SPARES	AUD	304.825	Debtor Invoice
4	03.06.2010	9:43:24...	10005	4. 4. CAR JUNCTION	NZD	997.02	Creditor Invoice
5	17.06.2010	10:25:5...	10006	11. 11. OWEN DENTON	NZD	1836.46	General Ledger Account
6	17.06.2010	10:26:1...	10007	6. 6. CENTRAL SERVICE STATION	NZD	2615.63	Sales Order
7	17.06.2010	10:26:1...	10008	5. 5. C & C PANELBEATERS	NZD	1221.41	
8	17.06.2010	10:26:1...	10009	7. 7. JAMES BARRY	NZD	1195.65	
9	17.06.2010	10:29:4...	10010	9. 9. MARKET PARTS	NZD	1709.51	
10	17.06.2010	10:46:5...	CR10003	1. 1. ALFRED NICOL AUTOS	AUD	-347.275	
11	05.07.2010	9:19:37...	10011	2. 2. ALL CAR SPARES	NZD	327.97	
12	05.07.2010	9:20:51...	10012	5. 5. C & C PANELBEATERS	NZD	611.74	
13	05.07.2010	9:22:24...	10013	4. 4. CAR JUNCTION	NZD	732.84	
14	05.07.2010	9:23:01...	10014	6. 6. CENTRAL SERVICE STATION	NZD	2615.63	
15	05.07.2010	9:23:02...	10015	5. 5. C & C PANELBEATERS	NZD	1221.41	
16	05.07.2010	9:39:55...	10016	1. 1. KNIGHT NICOL AUTOS	AUD	1338.7	
17	05.07.2010	9:41:29...	10017	12. 12. PAUL HOLLAND MOTORS	NZD	1335.82	
18	05.07.2010	10:07:5...	10018	4. 4. CAR JUNCTION	NZD	536.49	
19	18.05.2010	4:09:14...	10019	0. 0. CASH SALES	NZD	66.49	
20	20.05.2010	4:22:29...	10020	2. 2. ALL CAR PARTS	NZD	1730.25	

Detail Tab

TIP



It is recommended that you save your reports regularly. You may also wish to save a copy of the file in a different folder immediately before making major changes, in case you need to revert to an earlier version.

NOTE



You cannot edit in the preview pane.

Data Tab

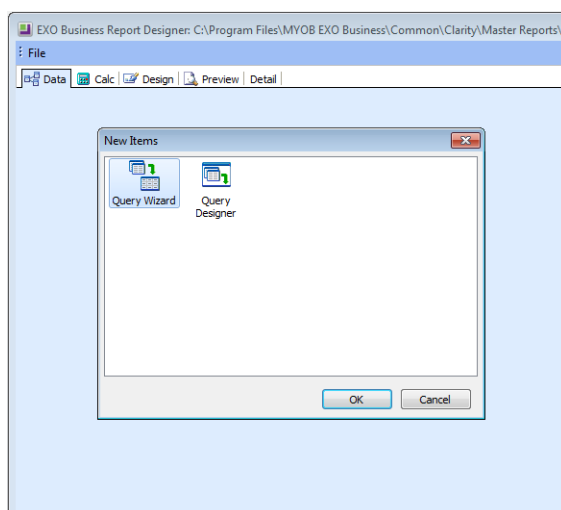
Overview

The Data tab is where the database tables and fields are selected. This section will explain the process of such selection, as this is an important part of the report writing process. If no data or the wrong data is extracted, the final report will show incorrect results.

This section also discusses the use of the Query Designer, as it is most likely the one you will choose to use. In the interests of completeness, the use of the Query Wizard is illustrated in the example included in 'Task 3: Generate the Report via the Report Wizard method' on page 79.

To create a new data pipeline:

- 1 From the Clarity Report Designer, click on the **Data** tab so that you see a grey screen with only the menu option of File available.
- 2 Select **File > New** and double-click on the **Query Designer** icon.



New Data Set

Query Designer

The Query Designer has 8 tabs:

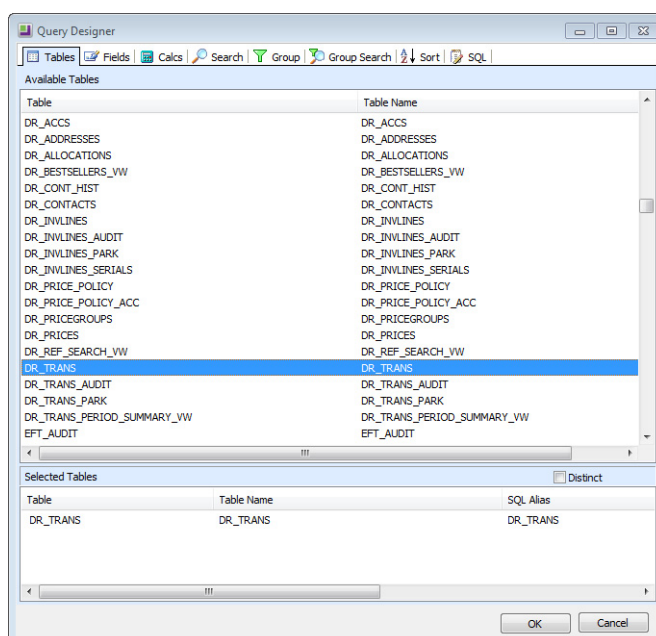
- Tables
- Fields
- Calcs

- Search
- Group
- Group Search
- Sort, and
- SQL.

These are explained in further detail later.

Tables Tab

This tab provides a list of available tables and views in the database for the user to choose from. The screen will now be split into 2 panes. The upper pane displays all of the EXO Business database tables available for use in report writing. The lower pane displays all the EXO Business database tables that have been selected for the report.



Data Tables Tab

When you first create a new data pipeline the bottom pane will be blank. This is where your selection will be stored.

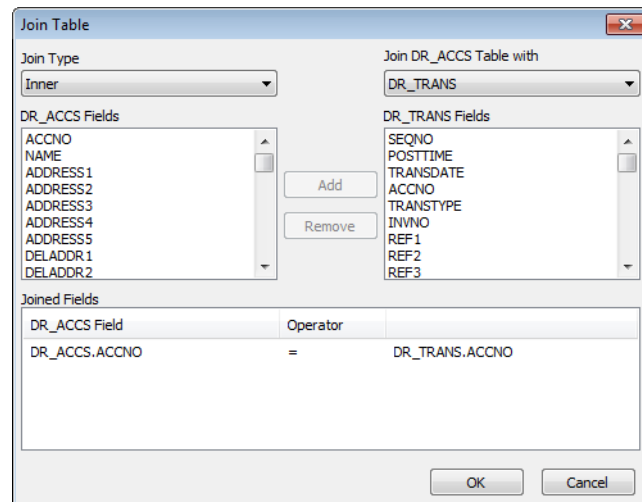
To select items on any of the tabs, double-click on a line in the top pane (in this case a table) and the line will copy into the bottom pane.

For example:

Double-click on DR_TRANS in the top pane to add it to the bottom pane. If you then decide that you have made a mistake and want to remove it from your selection, simply double click on it in the lower pane and it will disappear.

If you click on the **OK** button at this stage after only selecting a table, you will receive an error message. This is because no data fields have been selected and selecting a table on its own without fields is of no use.

If you select a second or subsequent table, the following screen will appear:



Data Tables Join

In this dialog box you can create a table join. A table join links two tables based on a common field.

To add a join condition:

- 1 Select the type of join
 - Inner
 - Left Outer
 - Right Outer
 - Full Outer.

TIP



If you are unfamiliar with these terms, refer to *'Appendix A - Database Primer'* on page 94 for more information.

- 2 Select the table to which you want to join from a list of existing tables in the data pipeline.
- 3 Highlight the new table's join field (on the left).
- 4 Select the existing table's join field (on the right) and click **Add**.

In the example above we are *inner* joining the DR_ACCS table (new) to the DR_TRANS table (existing) via the **Accno** field.

All unnecessary joins listed in the Joined Fields box must be removed or you may not get the results you intended

TIP



Clarity adds joins between fields of different tables with the same name automatically.

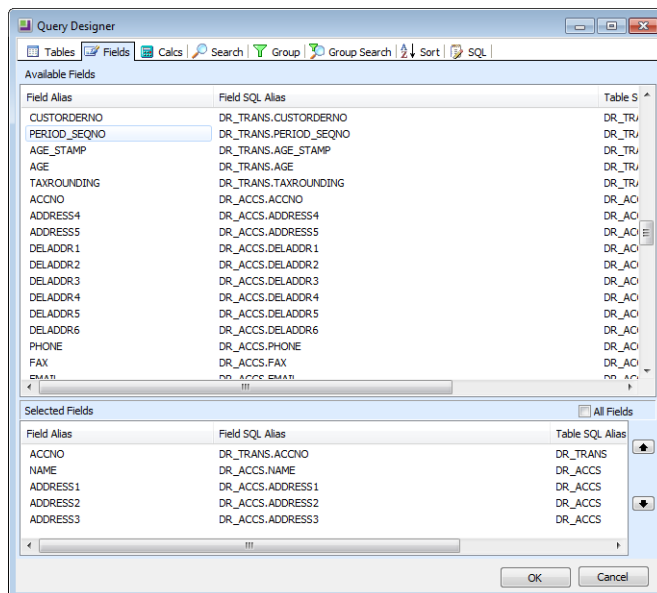
NOTE



Table joins within a data pipeline (like that shown above) occur on the server. This means that the server (which is designed for this type of processing) can manipulate the data more quickly and your report will display or print more quickly. If all you need is a single source of data (ie. no sub-reports or complex selections), then this is the best way to join two tables.

Fields Tab

Once you have selected the tables you require, click on the **Fields** tab.



Data Fields Tab

The selection of fields is the same method as before (double-clicking) with one exception: When you choose a field, it disappears from the top pane and only appears in the bottom pane. This means that, although you can choose the same table more than once, you cannot choose a field more than once from the same instance of that table.

NOTE



In the bottom right quadrant of the screen there is an **All fields** option. As the name suggests, if selected, all of the fields in the top pane will now be selected and will appear in the bottom pane. Changes can then be made by unselecting any unnecessary fields.

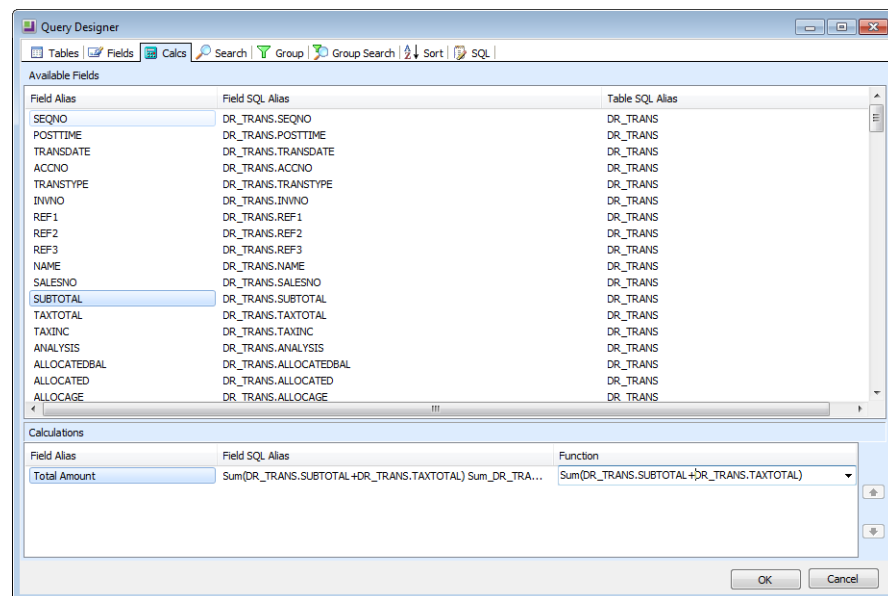
It is important to keep in mind that the more fields you select, the greater the amount of data that the computer will have to sift through when running a report. Consequentially, it will take longer to run. It is advisable to only use the fields you need. If you later find that you need more fields, you can access this screen again and add them.

Calcs Tab

The Calcs tab is where simple mathematical calculations are performed.

To record a calculation:

- 1 Select any field from the top pane.
- 2 Double-click on it to move it down to the bottom pane.
- 3 Select a function from the dropdown list, depending on the calculation you wish to apply to the field (e.g. Sum(), Count(), etc.). Alternatively, select the expression option for a more complex calculation and enter your formula.
- 4 Enter an alias for the resulting field in the **Field Alias**.



Data Calcs Tab

For example:

If you only had the amount and the exchange rate fields available, but you need to display the foreign currency of an amount of money, you would need to perform a calculation. To calculate the foreign currency amount you would enter the expression (amount/exchrte) and then rename the alias to FCAmount.

As in the other tabs, double-clicking sends the line back to where it came from.

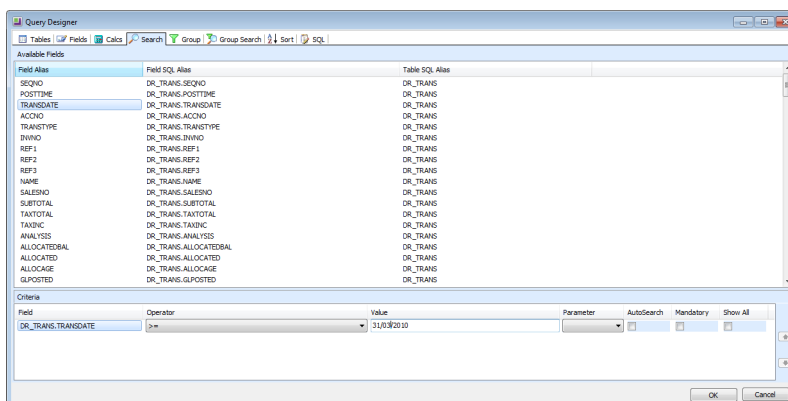
Search Tab

The Search tab is where selection criteria is entered in order to narrow down the selection of data to be as small as possible.

For example:

You can filter the records based on a date range or where balances are greater than \$0.00.

Any number of filters can be added to narrow down the result set.



Data Search Tab

TIP



As Clarity does not have an easy facility to enter a sample size, use the search screen to make your sample size as small as you need it to be so that your report runs quickly whilst you are building and testing. However don't forget to remove the unwanted search criteria before installing your report in a live situation.

Group Tab

Unless you are familiar with grouping, you may wish to ignore this tab as there are easier methods of grouping in the report itself. If you add an aggregate function (e.g. Sum()) in the Calcs tab, Clarity will automatically add non-aggregated fields to the list of fields to group by. This is normal behaviour and you cannot remove these.

Group Search Tab

The Group Search tab is where selection criteria is entered in order to narrow down the selection of data to be as small as possible. Similar to the **Search** tab, this feature is used to limit data further at a group level, e.g. You may want to exclude any Debtors Accounts who have an account balance of \$0.00.

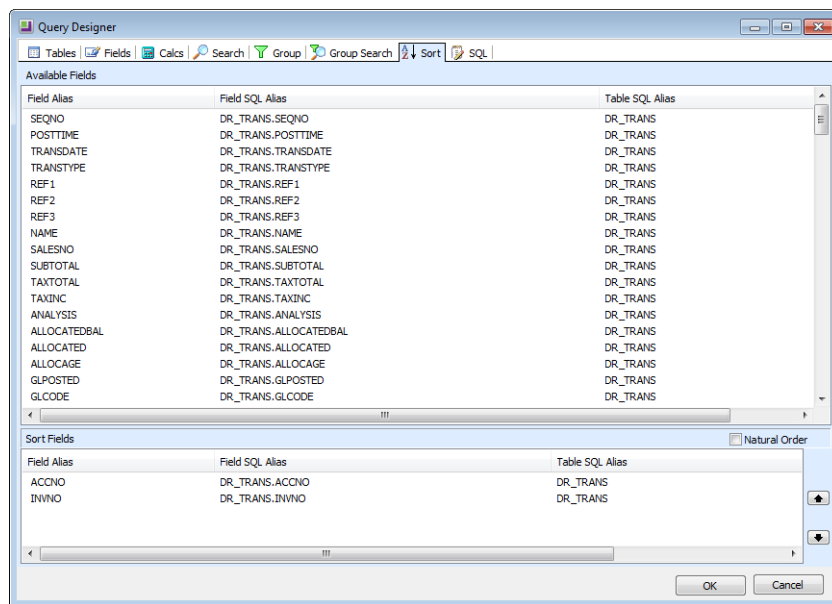
Sort Tab

The Sort tab is useful to select the order in which data is listed on the report.

If you are grouping by fields other than using the data pipeline Group tab (i.e. using the **Report > Groups** menu option, which is the recommended option at this stage), it is essential that the fields that you order by are the same fields that you group by and in the same order. Once these fields have been added in the correct order, any further fields can be added to sort records within the group.

For example:

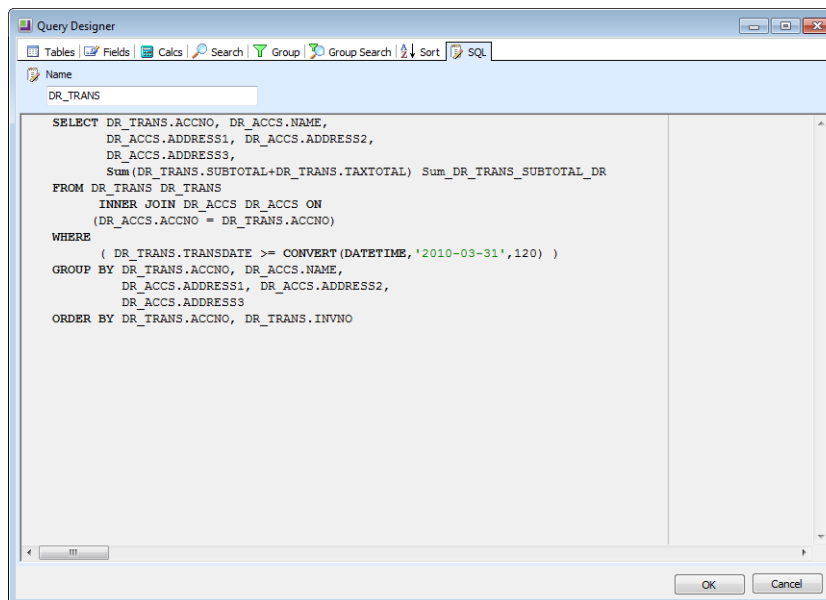
In order to correctly group records in a report by debtor account, you must have the records sorted by debtor account. You could then add a Sort field for the invoice number to sort by invoice number within the debtor account.



Data Sort Tab

SQL Tab

The only editable part of the SQL tab is the **Name** field, which actually is the name you give the new data source / data pipeline. The rest in the greyed out area shows the commands that you have performed on the tables and fields turned into SQL. Thus, if you are familiar with SQL code, this tab provides a useful check to see that you have made the selections you intended.



Dat SQL Tab

NOTE



In the above example, the data source has been renamed to 'Master'. This is because EXO Business looks for a data source named Master to apply search criteria to when passing parameters such as transaction sequence numbers through to reports.

Creating a Data Source

One of the more difficult parts of creating a report is working out which tables and fields you need to select to obtain the required information.

You first need to make a list of all the fields you want to display on your report. A good way of achieving this is by creating a rough drawing of what you would like your report to look like when it prints out (displaying a line or two of example data). You can then make a list of the fields required to show this information.

If any of the fields you require are calculated fields, you need to work out from which field(s) they will be calculated and add those source fields to the list of required fields.

Once you have determined which fields you require, make a list of all of the distinct tables that the fields come from. Establish how these tables are linked in the database, i.e. which fields they are linked on.

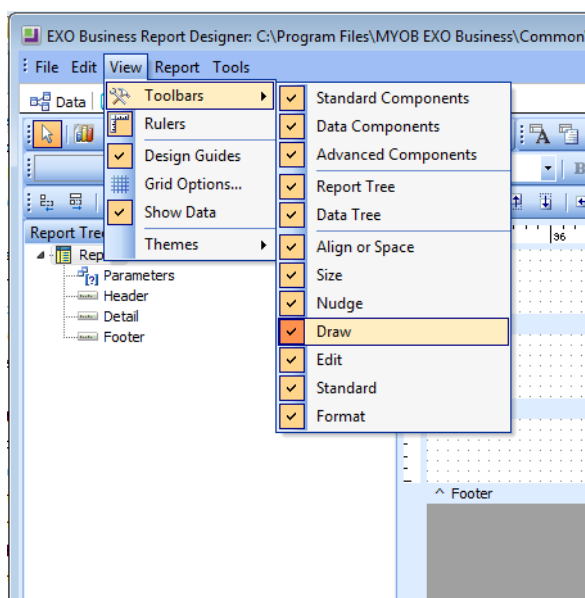
You now have all of the information required to create a data source and it is just a matter of selecting the distinct tables in your new data source and joining them with the links established. The fields required can then be selected for use in your report directly or to within calculations.

The report exercises in subsequent units guide you through this process, step-by-step .

Workbench Toolbars

This section introduces you to the various toolbars and their functions.

You can view a list of all toolbars in EXO Business Clarity and select those that you wish to always show, by selecting the **View > Toolbars** option from the Report Designer main menu or by right-clicking over the grey area of the workbench (i.e. the toolbars and component palettes). It is recommended that you select all the toolbars and become familiar with each.



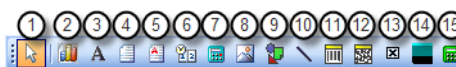
Design Tab View Menu

Toolbars

Standard Component Palette

The Standard Component palette and the Data Component palette would appear at a glance to contain many of the same elements. Although the similar icons do similar things, their overall purpose is very different.

The Standard Component palette is usually used for headings, labels, company logos, etc., that are static and not tied to any data source. The Data Component palette is the set of tools that are used to actually extract data from the database.



Standard Component Palette

The icons on the Standard Component palette represent components that are frequently used to build reports.

To use a component:

- 1 Click on an icon.
- 2 Click in a report band.

The functionality of each tool is described below.

- 1 **Selection tool** - Selects one or more components within the layout. It also allows you to clear any selection (by clicking in the white space of a band).
- 2 **Label** - Displays text. To set the caption of a label, highlight 'Labelx' which appears in the white window below this toolbar and overwrite it with the text you require. The label must be selected before this can be done. You also have the option to double click on the label to make it active to overwrite. From 8.4 the label allows via Right Click > Position the ability to alter the angle. This replaces the Rotated Label in previous versions
- 3 **Memo** - Prints multiple lines of plain text in a report. This can be achieved by editing the white window as with the label or by right-clicking on the Memo block on your canvas and selecting lines. You will be presented with a small word processing-type window in which you can type the text you require. This tool has limited word processing capabilities unlike the Rich Text tool described below.
- 4 **RichText** - Prints formatted text. Right-click on this block on your canvas and select **Edit** to access the window and its word processing features.
- 5 **System Variable** - Displays common report information such as page number, page count, print date and time and current date and time. When first selected, it defaults to Date. Clicking on the dropdown list allows a number of other available options.
- 6 **Variable** - Performs calculations. This tool is used together with the Calc tab and is used for advanced calculations.
- 7 **Image** - Displays graphics such as bitmaps, GIFs and JPEGs. This is used where a company logo is required on a form.
- 8 **Shape** - Displays various shapes, such as squares, rectangles, circles and ellipses. It initially defaults to a Rectangle. Use the dropdown list in the top right hand corner of the screen to select a different shape. In 8.4 you can set the Gradient colouring using Properties Tree> Gradient.
- 9 **Line** - Displays a line. Use the **Edit** toolbar to set the line orientation to top or bottom, left or right.

- 10 BarCode** - Renders text as a barcode. Use the **Edit** toolbar to set the text to be encoded. Right-click and access **Configure** to select from a list of industry standard bar code types.
- 11 2D Barcode** - Renders a two-dimensional barcode. Use the **Edit** toolbar to set the text to be encoded. Right-click and access **Configure** to select from a list of industry standard bar code types.
- 12 Chart** - Renders a chart based on fixed data. Right-click and select **Edit Chart** to configure the type and properties of the chart you wish to display. Chart or DBChart components are outside the scope of this training manual.
- 13 Checkbox** - Displays a checkbox icon that can be set as checked or unchecked by right mouse click.
- 14 Total Variable** - Used to perform totals for groups and reports. This is configured by right-clicking, selecting **Grand Total** and then selecting the field to be totalled from the dropdown list.
- 15 Gradient box** - This tool allows you to create a box with a coloured gradient fill. This can be useful for to make reports more modern-looking, but it should be used sparingly.

Data Component Palette



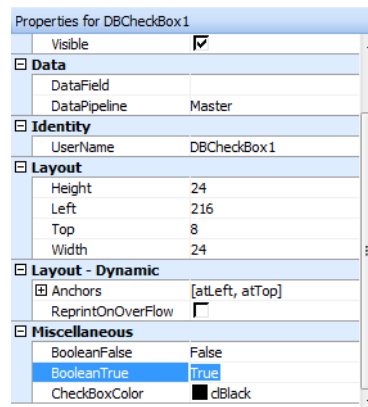
Data Palette

As described previously, Data Component palette offers several components that are identical to the standard palette, except that they are *data aware*, also known as *data bound*.

Data aware components have the ability to read the value of a field from a database table at run-time and then display that value in the report. This is different from the standard components, which display the content assigned when you lay out a report (design-time). You associate a data aware component with a given data pipeline and field by selecting the pipeline and field from dropdown lists in the **Edit** toolbar (the 2 white boxes with dropdown capabilities located in the top left of your screen).

- 1 DBText** - Displays data from most types of database fields. It cannot handle images or Rich Text.
- 2 DBMemo** - Prints plain text from a memo field of a database table. It will automatically word-wrap the text and can be set to stretch vertically down the page to accommodate larger text fields.
- 3 DBRichText** - Prints formatted text from a memo field. It will automatically word-wrap the text.

- 4 **DBCalc** - Performs simple database calculations (Sum, Min, Max, Average, Count). Placing one of these on your report will result in a box containing "Sum(?)". To replace the ? with the database field to be manipulated, select the field from the dropdown list of fields in the top left of your screen. To replace **Sum** with one of the other functions, right-click on the box and select **Calculations**.
- 5 **DBImage** - Prints graphics (Bitmaps, GIFs, JPEGs) that are stored in a database field.
- 6 **DBBarcode** - Renders a database field as a barcode. Use the dropdown list of database fields to set the Database field to be encoded. Right-click and access **Configure** to select from the list of industry standard bar code types.
- 7 **2D DBBarcode** - Renders a database field as a two-dimensional barcode. Use the Edit toolbar to set the text to be encoded. Right-click and access **Configure** to select from a list of industry standard bar code types.
- 8 **DBCheckbox** - Displays a checkbox for a Boolean value in the database. Select the table and field from the dropdown lists. You can also set the BooleanFalse and BooleanTrue properties of the checkbox in the **Properties** sidebar. Boolean True and Boolean False represent the 'field value to produce a check' and 'field value for an uncheck'. You could also replace the 1 and 0 in the illustration below with the value contained within the database field.



DB Check Box Properties

- 9 **DBChart** - Displays a chart based on one or more data series from the defined data pipelines. Right-click and select **Edit Chart** to configure the type and properties of the chart you wish to display. Chart or DBChart components are outside the scope of this training manual.

Standard Toolbar



Standard Features Palette

The **Standard** toolbar allows you to perform basic functions such as opening, saving and printing reports, as well as cutting and pasting selections.

- 1 **New Report** - Creates a blank report.
- 2 **Open Report** - Displays the Open dialog, allowing you to open an existing report.
- 3 **Save Report** - Saves a report to file.
- 4 **Page Setup** - Displays the Page Setup dialog, allowing you to set the paper size and configure the layout for the report.
- 5 **Print** - Displays the Print dialog before sending the report to the printer.
- 6 **Print Preview** - Displays the Preview tab.
- 7 **Cut** - Places the currently selected components in the clipboard and removes them from the report canvas.
- 8 **Copy** - Copies the currently selected components into the clipboard.
- 9 **Paste** - Pastes the components in the clipboard into the report layout.

TIP



Clarity provides the ability to paste components or sets of components between reports. This can be useful when copying layouts from one report into another.

NOTE



Be sure to check that the data aware components pick up the correct data field and reassign them where necessary. Note that any Variable expressions or Calcs code will not be transferred across, so this needs to be entered manually.

Format Toolbar



Format Palette

Use the **Format** toolbar to set the font and colours of text-based components. You can also control the layering of components with this toolbar.

- 1 **Font Name** shows the name of the font chosen for the selected component.

- 2 **Font Size** shows the size of the font chosen for the selected component.
- 3 **Bold** sets text to bold.
- 4 **Italic** sets text to italic.
- 5 **Underline** underlines text.
- 6 **Left Justify** left-justifies text.
- 7 **Centre** centres text.
- 8 **Right Justify** right-justifies text, as would be usually used for numbers
- 9 **Fully Justify** fully justifies paragraphs of text, usually used in memo fields.
- 10 **Font Colour** sets the text colour.
- 11 **Highlight Colour** sets the background colour.
- 12 **Anchor** allows the control to reposition itself when layout changes.
- 13 **Border** property for all controls.
- 14 **Bring Forward** brings the component forwards a layer.
- 15 **Bring to Front** brings a component to the front of other components.
- 16 **Send Backwards** bring a component back a layer.
- 17 **Send to Back** sends a component to the back of the other components. You can use the Report Tree to see the exact layering of the components within the band.

Draw Toolbar



Draw Palette

The **Draw** toolbar is used to set the colour and style used by shape, line and region components.

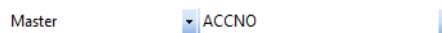
- 1 **Fill Colour** sets the colour for a shape or region.
- 2 **Line Colour** sets the colour of the border for shapes and regions. Sets the colour for a line.
- 3 **Gradient** allows to set the gradient colouring if you have a for the standard shape component. This gives you extra functionality as all types of shape can be used.
- 4 **Line Thickness** determines the thickness of a line. Applies to line components only.
- 5 **Line Style** sets the style of a line.

Edit Toolbar

The **Edit** toolbar is unique in that it changes based on the selected component. It consists of 2 dropdown lists used with the following components:

- Data aware components
- Labels
- Shapes
- Lines

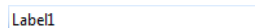
Edit Toolbar with data aware component



Database Selection

This configuration allows the data pipeline (1) and data field (2) for the component to be set.

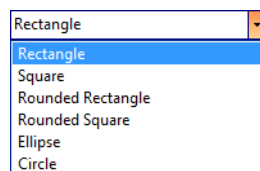
Edit Toolbar with a label component



Label Edit

This configuration allows you to type the text for a Label

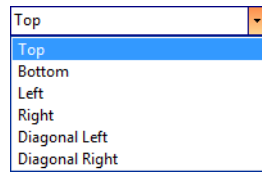
Edit Toolbar with a shape component



Shape Selection

The Edit toolbar allows you to choose from several shapes when a shape component is selected.

Edit Toolbar with a line component



Line Selection

This configuration allows you to move the line to the top, bottom, left or right within a line component.

Nudge Toolbar



Nudge Palette

The Nudge toolbar is useful when you want to move a component or selection of components with precision. Select a label on your report by clicking on it and then try clicking on each icon in turn.

The arrow on each icon represents the direction the selected item will move. Selections will move one pixel at a time. You can also move selected objects one pixel at a time by using the Ctrl-[Arrow Key] key combination.

- 1 **Nudge up** moves all selected components up one pixel.
- 2 **Nudge down** moves all selected components down one pixel.
- 3 **Nudge left** moves all selected components one pixel to the left.
- 4 **Nudge right** moves all selected components one pixel to the right.

Size Toolbar



Size Palette

You can use the Size toolbar to set all of the components within a selection to a uniform height or width.

- 1 Shrinks the **Width** of all selected components to the width of the narrowest.
- 2 Increases the **Width** of all the selected components to the width of the widest.
- 3 Shrinks the **Height** of all selected components to the height of the shortest.

- Increases the **Height** of all the selected components to the height of the tallest.

Select a small label from the detail band on the report and then, while holding down the **Shift** key, select a larger label so that both have tiny grey boxes at their corners. Then click on each icon in turn.

Align or Space Toolbar



Align Palette

The Align or Space toolbar is useful when two or more components need to be positioned uniformly.

For example:

The tool bar can be used to align several components so that the tops are all in line or space components so that they have an equal amount of space between them.

The first component selected determines the position to which the others will align.

TIP



The trick is to ensure that the thick black line on the icon represents the border that you want to have aligned.

IMPORTANT



Alignment always occurs based on the first component you select when you are selecting multiple components

- Align Left Edges** aligns a group of components with the leftmost position of the component that was first selected.
- Align Horizontal Centres** centres a group of components based on the horizontal centre of the first-selected component.
- Align Right Edges** aligns a group of components with the rightmost position of the first-selected component.
- Align Top Edges** aligns a group of components with the topmost position of the first-selected component.
- Align Vertical Centres** aligns a group of components based on the vertical centre of the first-selected component.
- Align Bottom Edges** aligns a group of components with the bottommost position of the first-selected component.
- Space Horizontally** spaces a set of components based on the leftmost position of the first-selected component and the rightmost position of the last-selected component.

8 Space Vertically spaces a set of components based on the topmost position of the first component selected and the bottommost position of the last component selected.

9 Centre Horizontally in Band centres a component horizontally within a band.

10 Centre Vertically in Band centres a component vertically within a band.

NOTE



When moving fields around by dragging, you will notice that lines keep appearing. These are alignment aids which allow you to line up components using the palette tools.

Advanced Component Palette



Advanced Palette

The Advanced Component palette contains components that can help you manage complex reporting layouts.

- 1 Region** logically groups components together. To achieve this, you need to place the region on the canvas first and then place the other components on top of it. This defaults to having a line around it but the option **No line** can be selected from the **Line Colour** tool. When the region is moved, all the components in it move with it. When the region is made invisible, all components in it are also hidden.
- 2 Sub Report** handles multiple master details, creates side-by-side reporting effects and link reports with different data sources together as one. This is discussed in detail the Clarity (Advanced) Course.
- 3 Page Break** allows advanced control over pagination.
- 4 Paint Box** is a new feature in v8.2.

- 5 **Crosstab** allows the user to generate a set of calculations that summarize grouped or aggregated data from database tables and provide a way of extracting a great amount of information from data. Crosstab reports display the calculations in a grid format similar to the following illustration:

					Grand Total
Branchno	Branchname	Jan01	Feb01	Mar01	
0	AUCKLAND	-7760		85000	77240
1	WELLINGTON	-23039	9541	18555	5057
Grand Total		-30799	9541	103555	82297

Cross Tab Function

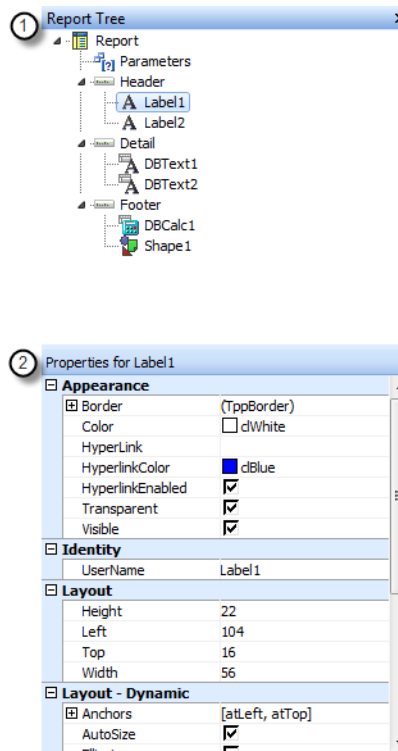
Report Tree

The Report Tree can be used to view the components within each band of the report in a tree-like structure. Components selected in the Report Tree become the selection in the report layout.

You can rename components by right-clicking on the name, selecting **Rename** and then typing in a new name. Make sure to hit the **ENTER** key after renaming to ensure that the new name is assigned. Renaming objects is useful if you are planning to use them in calculations or formulae.

This tool window is dockable only on the left and right sides of the design workspace.

When selected, the properties of the component are also displayed and can be altered.



Report Tree

- 1 **Report tree** shows each object on the form in a tree structure.
- 2 **Properties list** shows advanced properties for the currently selected object. If the report itself is selected then it shows the report properties.

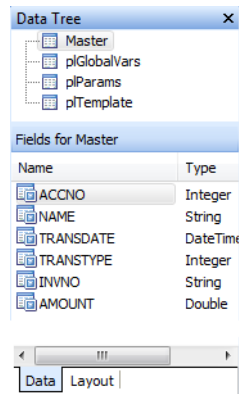
The Data Tree

The Data Tree can be used to create data-aware components within a band. Simply select a set of fields and drag the selection into the band. A set of corresponding data-aware components will be created. This tool window is floating and dockable only on the left and right sides of the design workspace.

- 1 **Data Tree** shows all of the data pipelines in the data workspace, as well as three special data sources: plGlobalVars, plParams and plTemplate.
- 2 **Field List** shows the EXO Business database fields available. Individual fields can be dragged from here onto the report.

Data Tab

This view shows what data is available from the currently selected data pipeline. The screen shot below illustrates how the Data Tree looks when the Data tab is selected. You can drag fields directly from here onto your report canvas to create a DBText component linked to the selected data field.



Data Tree

Layout Tab

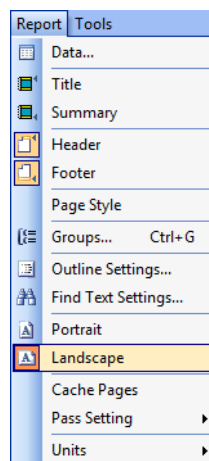
The Layout tab allows you to control the format of the components created when you drag fields from the Data Tree into the layout. You can create just a Label, just a DBText or both for each field you drag from the Data tab. You can also specify the orientation of the label relative to the DBText as well as the font size and style to use.

Report Menu

The Report dropdown menu includes a number of features that are not covered in tutorials, but are highlighted here.

Title

The Title band does not appear in the default Design canvas. It needs to be selected here to activate it. The **Title** band serves the same purpose as the **Header** band, except that it only prints on the first page and not on subsequent pages. If both **Title** and **Header** are activated, the **Title** band appears above the **Header** band.



Report Menu

Summary

The Summary band always appears below the last line of information on the report. The two options are to print it directly below the last line of information or to print it just above the Footer on the last page. (**Summary to Bottom** option on the **Tools** menu) Although, on the canvas, the Footer appears above the **Summary** band, when the report is printed, the **Footer** is printed at the bottom of each page and is always the last item printed.

Header / Footer

The **Header** and **Footer** appear at the top and bottom of each page respectively. These menu options allow you to show or hide these sections.

Page Style

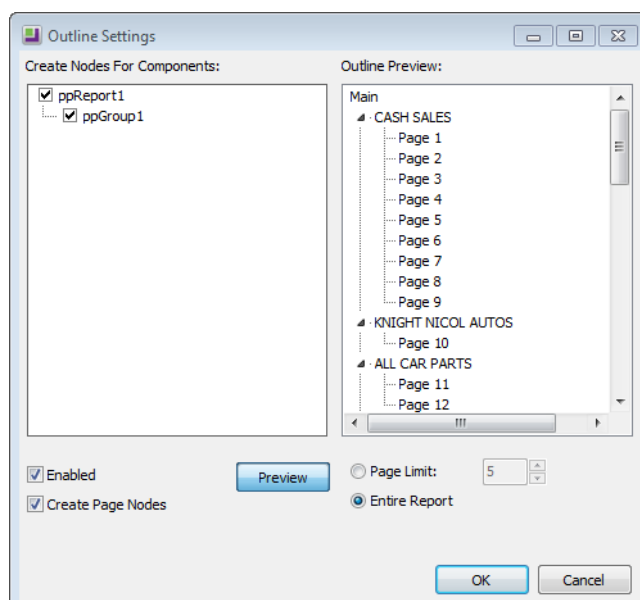
This band, when activated, appears at the bottom of the canvas. Anything entered in this band appears 'behind' the report, similar to a watermark. Hence, if you need lines to run the length of an invoice or a border around the page, you would add these to the **Page Style** band.

Groups

The **Groups** menu item allows you to set up groups in your report. This is described more in *Unit 3, 'Tutorial 2: Invoice Listing Report'*, on page 51. Grouping is similar in purpose to the **Groups** tab in the Data view when setting up a data pipeline, however, this option is easier to implement and understand when creating basic reports. Remember that in order to group things here, they must be sorted by the same fields and in the same order in your data pipeline.

Outline Settings

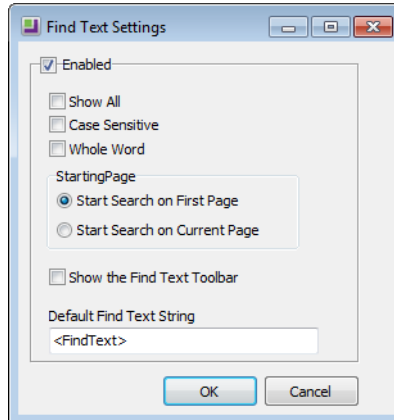
The **Outline** settings property once enabled, is available only in the preview tab of the Clarity designer. It shows a tree view display of the various groups in the report and optionally the pages they appear on. Clicking the groups or the page numbers takes the user directly to the appropriate page.



Outline Settings

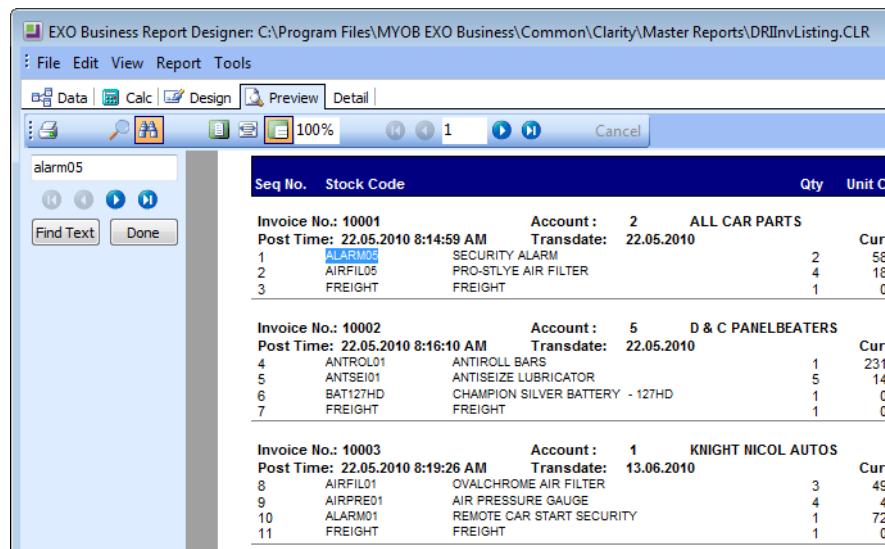
Find Text Settings

This option is only available in the **Preview** tab. It provides the user with the ability to search for strings within the report.



Find Text Settings

The user can specify whether the search will be case sensitive or whole word, whether the starting page for the search would be the first page or the current one. The **Default Find Text String** can also be specified.



Find Text Preview

Portrait / Landscape

This is a quick way of setting the orientation of the report on the page. Another method is to go into the **File > Page Setup** menu item and change it on the **Paper Size** tab.

Pass Setting

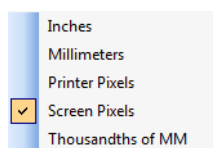
There are two options available:

- One pass, or
- Two passes.

This is an advanced setting that beginner Clarity users shouldn't get too concerned with. Basic reports should run fine on either setting, although, for large reports, you may notice reports run more slowly when set to **Two Pass**. Using Two Pass, the computer goes through the data twice - doing all the calculations out on the first pass and then formatting and printing the report on the second pass. **One Pass** does it all in one go. You may find that in complex reports this setting needs to be taken into account to ensure, for example, that variables are not calculated twice (when set to Two Pass) or that report totals are calculated incorrectly before generating (if set to One Pass).

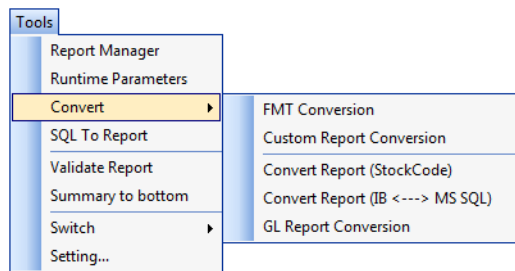
Units

A number of different units of measurement are available to select from. These apply to all reporting features (custom page size, position of labels etc.).



Units List

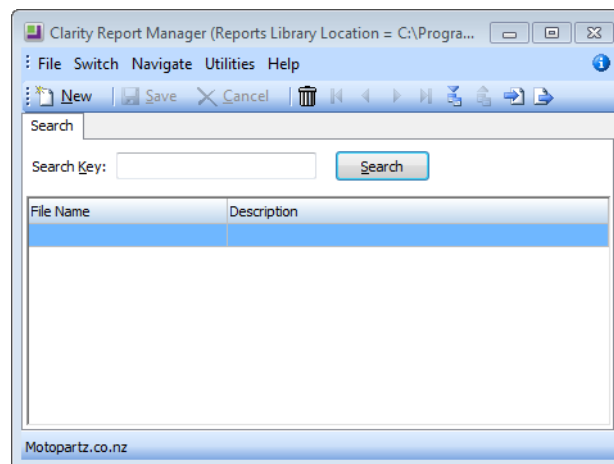
Tools Menu



Convert to Menu

Report manager

The Report Manager tool makes the management of reports much easier in DCE situations where there is no access to the shared folders on other systems. In such cases, with the help of the Report Manager, reports are stored in the database as BLOBS. The user can perform batch import/exports as well as single file import/export of clarity files.



Report Manager

Using the Report Manager, there is a consistency in terms of the versions of the reports on all systems thereby eliminating problems with report editing/version control and making management of reports easier.

On the down side, the download of reports becomes slower because the reports are extracted from the database and then run. For the EXO Business software to refer to the Clarity files stored in the database rather than the files stored in the default/custom Clarity directory turn on the profile **Store Clarity Files in DB**.

Runtime Parameters

Setting up of the runtime parameters are discussed in *Unit 4, 'Runtime Parameters'*, on page 59.

Convert

FMT Conversion is used to convert legacy FMT files

Custom report Conversion allows the user to create a new custom report by selecting from the predefined set of reports.

The **Convert Report (Stockcode)** utility converts the clarity reports to 23 characters stock code.

The **Convert Report (IB <--> MSSQL)** utility converts a legacy Interbase report to an MSSQL one and vice versa. Note that Interbase reports are only supported up to EXO Business version 6.2.

The **GL Report Conversion** utility creates clarity forms for the reports written in the GL report writer.

SQL to Report

This tool allows the user to generate a report based on an SQL statement. The user simply has to specify an SQL statement and follow the steps of the utility to generate a report based on it.

Validate Report

This performs a basic check on the validity of the report (fields, links, code, etc.) and gives "No error found" a message if validation is completed successfully. It is a good idea to run this before you save your reports. There are still errors and inconsistencies that this tool is not able to warn you about. You should check reports manually and preview them.

Summary to Bottom

This option determines whether the Summary band of your report appears immediately after the last Detail item on your report (not selected) or at the bottom of the page, just above the Page Footer (selected).

Switch

This option allows you to switch the report between Custom Report and Standard Report. This determines whether the report is stored in the EXO Business database as a Custom report or a Master/standard report and takes effect when EXO Business is set up to store report definitions in the database rather than in files.

Setting

The Setting option opens a window where you can enter the document name, a description, the number of copies that should be printed when output to a printer and a button to set advanced output options, including printing to multiple printers and/or paper trays. This is covered in the Clarity (Advanced) course.



Skills checklist

Tick the skills that you have learned in this unit.

Skills	✓
Identify Clarity form types	
Familiarise yourself with all work tabs	
Canvas set up	
Understand palette tools	
Utilise drop down menu options	

Tutorial 1: Stock Listing Report

2

In this unit you will learn how to building your first report in Clarity

By the end of this unit, you will be able to:

- ▶ Create Data Tables
- ▶ Add Fields
- ▶ Position and Align items
- ▶ Use the Preview Tab

Overview

This simple exercise provides an introduction to the EXO Business Clarity Report Designer basics, the Query Designer and the process of building reports. The purpose of this tutorial is to show you what it takes to build a report and to get an overall idea of the concepts. If you feel a little lost, don't worry. The meaning behind the actions will become clearer in later tutorials.

The report for this tutorial should contain the following items:

- A list of stock items
- A selling price for each item
- A Latest cost for each item
- A GP% for each item

Plan the Data Source

Before starting a report, take the time to plan the data source.

Which fields are required to create this report?

Item	Fields Required
A list of stock items	Stock_Item.Stockcode Stock_Item.Description
A selling price for each item	Stock_Item.Sellprice1
A latest cost for each item	Stock_Item.Latestcost
A GP% for each item	No further fields required (GP% can be calculated by $(\text{Sellprice1} - \text{Latestcost}) / \text{Sellprice1} * 100$)

Which tables are needed to supply these fields?

All of the above fields can be found in one table: Stock_Items.

Create a new report

Start Clarity

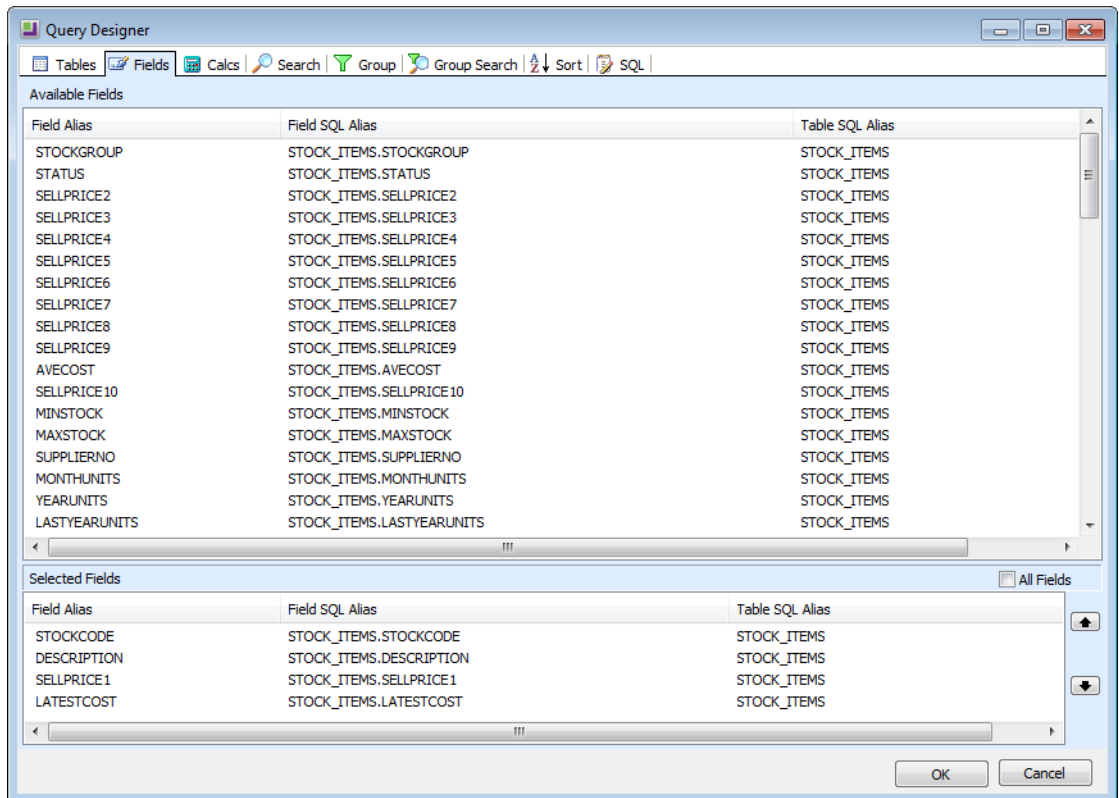
It will be helpful for you to become familiar with the following steps as you will repeat this process to begin any report that you are writing from scratch (except FMT conversions).

- 1 Launch the Clarity Report Designer from the EXO Business > **Reports** Business Flow menu and via the dropdown menu **Reports > Clarity Report Designer**.
- 2 Click on **File > New Report** or the blank document icon on the main toolbar.
- 3 Click on the **Data** tab.
- 4 Select **File > New** in order to access the **New Items** dialog.
- 5 Double-click on the **Query Designer** icon. The Query Designer will come up with a list of available tables.

In the Query Designer

- 1 Choose the **Stock_Items** table by double-clicking on it. This table should now appear in the list of Selected Tables.
- 2 We have finished selecting tables for now, so select the **Fields** tab.
- 3 Note that all fields are preceded by the table name and a dot.

- 4 Select the fields as listed below by double-clicking on them.



Data Fields Tab

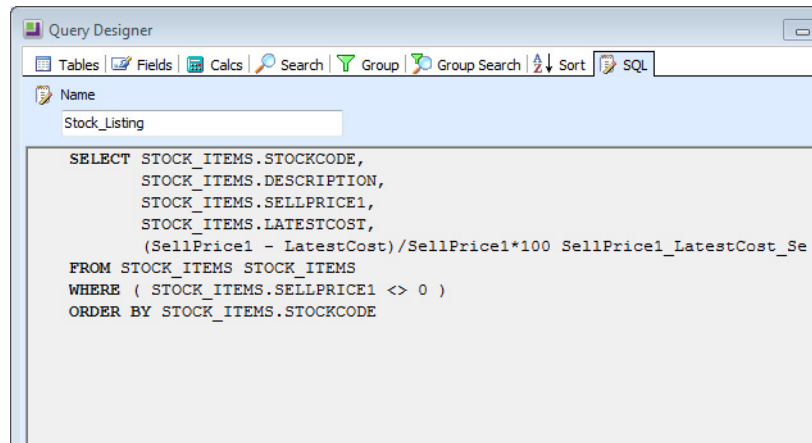
- 5 Click on the **Calculations** tab.
- 6 Double-click on the **Latestcost** field.
- 7 From the dropdown list in the **Function** column, change from **Sum** to **Expression**.
- 8 Enter the following calculation in the **Expression** field: **(Sellprice1 - LatestCost)/Sellprice1*100**.
- 9 Change the name of the **Field Alias** to **GP%**.

Field Alias	Field SQL Alias	Function
GP%	(SellPrice1 - LatestCost)/SellPrice1*100 SellPrice1_LatestCost_Se	(SellPrice1 - LatestCost)/SellPrice1*100

GP% Calculation

- 10 Move to the **Search** tab and double-click on **Sellprice1**. In the box below, specify that **Sellprice1 <> 0**. This is because there may be some zero selling price1's in the database and the computer is unable to divide by 0.
- 11 Move to the **Sort** tab and select the **Stock Code** field.

12 Move to the **SQL** tab and change the **Name** of the data source to **Stock_Listing**.

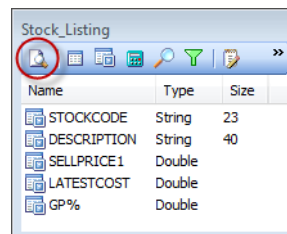


Data SQL Tab

13 Click **OK**.

You've officially completed your first query via the Query Designer. You'll notice a new window in the upper left-hand corner of the data tab workspace. This is a data view of the query and represents the data that will be selected from the database each time the report is generated.

14 Preview the data produced by this data source by using the **Page and Magnifying Glass** icon:



Preview Data

Second Data Query

We will now add another query to the same report and you will see that this additional query need not in fact be joined to our first query at all.

- 1** Click on **File > New** and choose **Query Designer**.
- 2** Choose the **General_Info** table by double clicking on it.

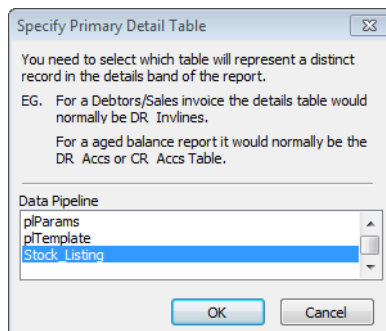
TIP

You can type the letter **G** and the cursor will jump to General_Info in the list. General_Info contains the registered EXO Business company information and tax registration details required on many reports.

- 3 Move to the **Fields** tab and select the **Username** only. Click **OK**.
- 4 You are back in the **Data** tab and General_Info appears as a dataview on your **Query** tab.

Report Layout

- 1 Click the **Design** tab.
- 2 Clarity will need to know which query on the **Data** view tab represents the Primary detail section of your report. This means it wants to know the main table on which you will be building the report. This is essential. In our case, it is the first query we created via the wizard, called *Stock_Listing*.



Primary Table Selection

NOTE

If you select the wrong table, don't panic - simply click on the **Report** menu and select **Data....** The Primary Table Selection Screen will appear once again and you can change the table.

- 3 Select **File > Save As...** and save your report as StockItems.CLR.

Design Workspace/Report Canvas

The Design workspace (also known as the report canvas) is the environment in which you will build your report layout. The workspace is divided up into sections or bands, with each band's title and height-adjustment bar immediately below.

- The header band (the white space above the word 'Header') will appear at the top of each page of the report.
- The detail band will be the body of the report.
- The footer band will appear at the bottom of each page of the report.

Begin the report

- 1 Click on the **Label** icon on the toolbar.



Label Palette Tool

- 2 Click in the white space of the header band in order to create a label.
- 3 Create two more labels in the header band in the same fashion. The label will be aligned later.
- 4 Select **Label1**.
- 5 Locate the **Edit** toolbar (below the label component icon on the toolbar). It should contain the text **Label1** in a white box, which is the caption of the currently selected label.
- 6 Highlight the text in the **Edit** toolbar and type **Product**.
- 7 Select **Label2** and type **Description** into the edit toolbar.
- 8 Select **Label3** and type **Selling Price** into the edit toolbar.
- 9 Continue placing labels for **Latest Cost** and **GP%** across the band.
- 10 Press **CTRL + S** to save your work.

Add Data fields

- 1 Select the **Product** label.

- 2 Hold down the **SHIFT** key and then click on the other labels. All the labels should now be selected. You can tell that they are selected by the small grey boxes at the corners of each label. These boxes are called selection handles.
- 3 Click the **bold** icon. All the label captions should turn bold.
- 4 Locate the **DBText** icon on the toolbar and click on it.



DBText Palette Tool

- 5 Place a DBText component in the detail band (click in the **Detail** band).
- 6 Change the text from bold to regular by clicking on the **bold** icon.
- 7 Place four more **DBText** components in the detail band.
- 8 Select **DBText1**. Notice that there are two dropdown list in the **Edit** toolbar. The dropdown list on the left contains all the report data sources (Stock_Listing, General_Info and the three special data sources). The dropdown list on the right contains the fields.
- 9 Select **Stock_Listing** from the left dropdown list and select **Stockcode** from the right dropdown list.
- 10 Continue selecting fields **Description**, **Sellprice1**, **LatestCost** & **GP%** in turn for DBText components 2-5.

Positioning

- 1 Right-click on the **Product** label (in the **Header** band) and select **Position**.
- 2 Set the **Left** to **5** and the **Top** to **5**.
- 3 Click the **GP%** label and move it almost to the right hand margin of the report.
- 4 Select the **Product** label again, then hold down the **SHIFT** key and click on all of the labels remaining labels in the Header section.
- 5 Click the **Space Horizontally** icon. The labels should now be spaced evenly across the report.



Space Horizontally

TIP



You can manually adjust labels fields that require more space at a later time.

- Click the **Align Top** icon. The labels should all align with the first label you selected.



Align Top

- Unselect all the labels by clicking on an empty space on the canvas. Select the **Product** label again and then hold down **SHIFT** and select **DBText1** (containing the StockCode field) and click the **Align Left** icon. Repeat this step for the other labels and corresponding DBTexts but choose the **Align Right** icon for the numeric fields. (Ensure that the numeric components and their labels are right justified also).
- Align the tops of all of the DBText components, as we did for the other labels.
- Press **CTRL + S** to save your work.

Preview Window

The Preview window in the Report Designer environment works the same way as the preview capability in most other Windows applications. It shows you what your report will look when it is printed.

- Click on the **Preview** tab and look at your report. Make sure that the columns are nicely spaced with plenty of room for long names.
- Everything should look good except for the rows, which are double- or triple-spaced. Double spacing takes up too much room and will waste paper when the report is printed. Also you may wish to alter the number formats.

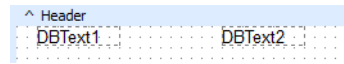
Tidying up

Even an advanced report writer will usually find several things that can be improved when previewing a new report. Let's fix the spacing to begin with.

Remove extra spaces

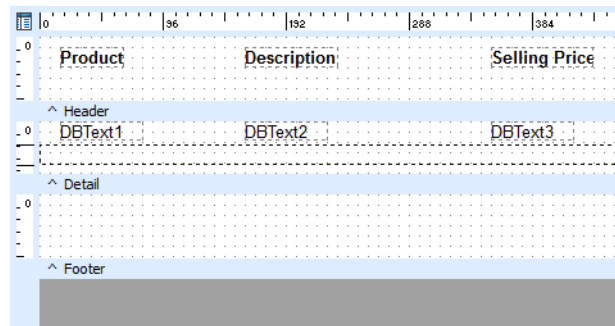
- Return to the design workspace by clicking on the **Design** tab.
- Press the left mouse button and draw an imaginary square around the fields in the details band of your report. The fields should all have grey dots ("handles") at each corner. This indicates that it is part of a selection of multiple items.

- 3 Move one of the fields and notice how all of the fields move in unison, remaining in their relative positions to the field you are dragging. Move the fields to the top of the Details band.



DBText Fields Positioning

- 4 Place your cursor over the bar labelled **Detail**. Your cursor will change to an up/down arrow, indicating that you can drag the section divider up and down.



Canvas Band Positioning

- 5 Drag the divider (grey band) up until it meets the bottom of the components in the detail band.

Change number formatting

- 1 Right-click on the **DBText** component.
- 2 Select **Display Format** option.
- 3 Select the format you require.
- 4 Click **OK**.

Final preview

Preview the report once more. If any of the fields are truncating their data then right-click and select the **Autosize** option.

You might wish to put the EXO Business company name on the top of this report. See if you can do this based upon what you've just learned.

Close the Report Designer window by clicking the button at the upper right corner of the window. You will be prompted to save your changes.

Congratulations! You've built your first EXO Business Clarity report!

Product	Description	Selling Price	Latest Cost	GP%
AIRFIL01	OVALCHROME AIR FILTER	\$62.04	\$49.99	19.42 %
AIRFIL012PK	OVALCHROME AIR FILTER	\$140.00	\$99.98	28.59 %
AIRFIL05	PRO-STYLVE AIR FILTER	\$29.21	\$18.54	36.53 %
AIRPRE01	AIR PRESSURE GAUGE	\$5.19	\$4.75	8.48 %
AIRSUS01	AIR SUSPENSION	\$248.10	\$184.55	25.61 %
ALARMO1	REMOTE CAR START SECURITY	\$94.88	\$72.56	23.52 %
ALARMO5	SECURITY ALARM	\$73.91	\$58.00	21.53 %
ALLOY10114X6	ALLOY WHEELS STYLE 101 14X6.0	\$394.50	\$306.03	20.41 %
ALLOY16	1991-1993 STYLE GT PONY WHEEL	\$400.00	\$300.00	25.00 %
ALLOYSET	ALLOY WHEELS STYLE 101 14X6.0	\$1,975.00	\$1,530.14	22.52 %
ALNTR001	65AMP NOMINAL ALTERNATOR	\$440.00	\$328.26	25.40 %
AMPEQL01	MOBILE TMG AUDIO AMPLIFIER/EQUALISER	\$201.72	\$152.33	24.48 %
ANTRCOL1	ANTRICOLL BARS	\$308.40	\$231.32	24.99 %
ANTSE01	ANTISEIZE LUBRICATOR	\$19.95	\$14.86	25.51 %
AUDIO12WARRANTY	AUDIO EQUIPMENT 12 MTH EXTENDED WARRANTY	\$30.00	\$0.00	100.00 %
AUDIO24WARRANTY	AUDIO EQUIPMENT 24 MTH EXTENDED WARRANTY	\$40.00	\$0.00	100.00 %
BAT127HD	CHAMPION SILVER BATTERY - 127HD	\$68.85	\$45.67	33.38 %
BATCH01	BATTERY CHARGER	\$66.00	\$66.00	25.00 %
BATT12V31M	12V31M BATTERY	\$236.89	\$177.67	25.00 %
BEASEP01	BEARING SEPARATOR	\$48.19	\$39.95	17.10 %
BMRTA05	BM RACE TRANSMISSION	\$1,394.12	\$999.99	28.27 %
BRKCALPR	DISK BRAKE FRONT LFT & RGT CALIPER SET	\$222.20	\$166.67	24.99 %
BRPADASET	BRAKE PADS SET - REAR - REPLACEMENT 94JIP	\$66.75	\$66.56	25.00 %
BRPADSFRONT4SET	BRAKE PAD SET, REPLACEMENT, FRONT, 94JIP	\$88.75	\$66.56	25.01 %
BRROTOR	REPLACEMENT FRONT AND REAR BRAKE ROTOR	\$133.15	\$49.94	62.49 %
CAMADJ01	ADJUSTABLE CAM SHAFT	\$194.36	\$158.37	18.52 %
CARBRTOR01	SHELBY 1966 915 CFM HOLLEY CARBURETOR	\$1,166.50	\$783.81	32.81 %

Final Preview



Skills checklist

Tick the skills that you have learned in this unit.

Skills	✓
Creating Data Tables	
Adding Fields	
Positioning and Alignment	
Preview Tab Usage	

Tutorial 2: Invoice Listing Report

3

In this unit you will how to Use grouping effectively in reports.

By the end of this unit, you will be able to:

- ▶ Use Grouping
- ▶ Calculate Group Totals

Overview

Groups are added to a report so that summary information can be extracted from specified subsets of data. Grouping must be performed on discrete data fields, in other words, the data fields you group by must be able to be separated into distinct, identical groups. An example of a field that cannot easily be grouped is a "datetime" field like **Transdate**. This is because a datetime value can be any date or any time (down to fractions of a second). While there are ways of grouping this data (e.g. by day or by hour), it is a complex topic beyond the scope of this course. An example of a field that can be grouped is **Accno** - in other words, all records relating the same account will have the same **Accno**.

Groups are represented in the report layout by a matched pair of bands: the **Group Header** and **Group Footer**. The **Group Header** prints when the group begins and the **Group Footer** prints immediately after the last detail band of the group. This process repeats itself until all groups have been processed.

You are able to group data in a report by more than one field but it is imperative that the fields that you group by are also fields that you sort by and in the same order or your report will not make sense. Once the sort fields are properly set for the groups, extra sort fields can be added. This may be required, for example, to sort by the DUE DATE field for debtor invoices which have been grouped by branch then by debtor. In this case, your sort fields might be (in order): DR_TRANS.BRANCHNO, DR_ACCS.ACCNO, DR_TRANS.DUE DATE .

The report for this tutorial should list all the invoices, organised (grouped) by each debtor account.

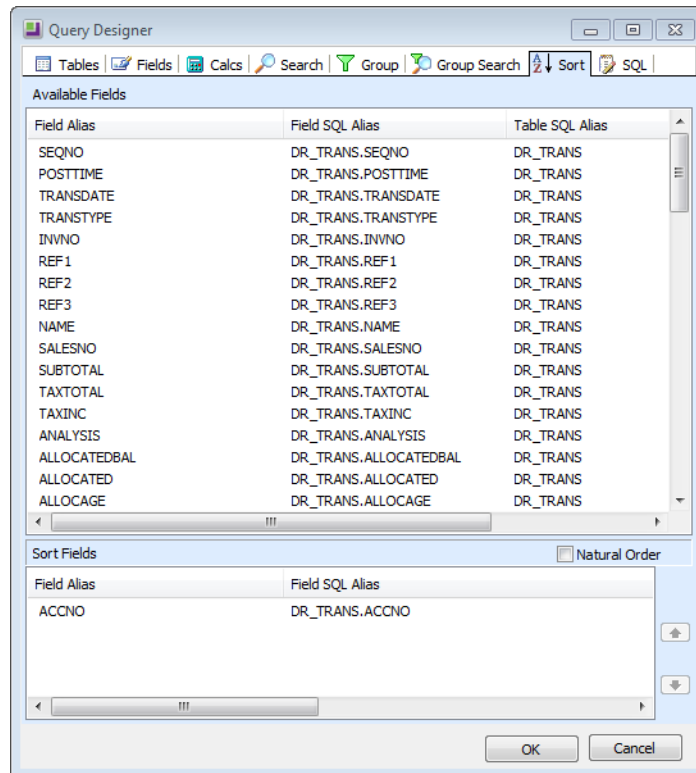
Data Source

The following tables and fields are required for this report:

Item	Fields Required
Debtor Account Details	DR_ACCS.ACCNO DR_ACCS.NAME
Invoice Details	DR_TRANS.INVNO DR_TRANS.TRANSDATE DR_TRANS.DUE_DATE DR_TRANS.AMOUNT

Data View

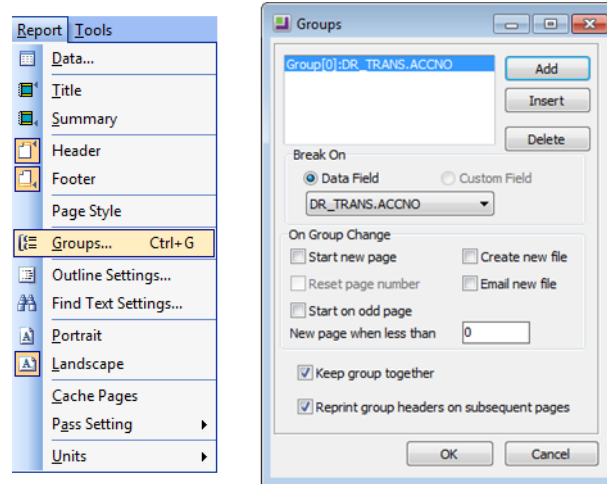
Create a data view consisting of required fields from the **DR_Trans** table and sort the data by **Accno**.



Data Sort Tab

Grouping Data

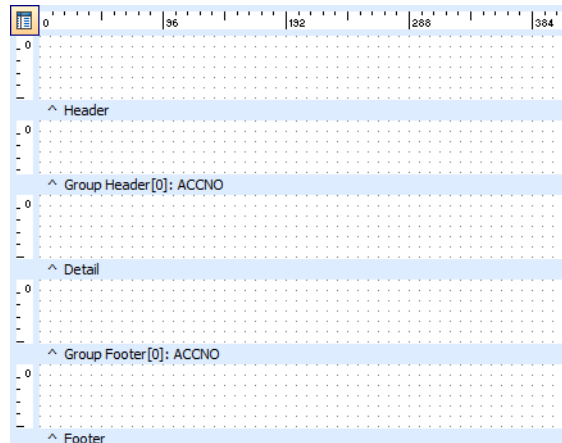
- 1 Create a group based on the **Accno** field as shown below.



Report > Groups

- 2 Click **OK**.

The following design layout is produced. Compare the numbers on the screenshot below to the report preview to get an idea how the report groups are generated.



Group Bands

Report Layout

- 1 In the **Group Header** section, place the repeating data for each group, i.e. the account data (because the ACCNO is the same for each item in the group).
- 2 In the **Group Footer**, place the summary data for each group, i.e. a dbCalc component displaying sum(Dr_Trans.amount).
- 3 In the **Detail** section, place the invoice data (invno, amount etc...).

Your report should look something like this (perhaps with different fields). Compare the design view and preview below.

Account	Trans. Date	Invoice No.	Due Date	Amount
Header				
ACCNO	NAME			
Group Header (ACCNO)				
	TRANSDAT	INVNO	DUE DATE	AMOUNT
Detail				
				Sum(Amount)
Group Footer (ACCNO)				
Footer				

Invoice Listing by Debtor - Report Layout

Invoice Listing By Debtor Account

Account	Trans. Date	Invoice No.	Due Date	Amount
5. D & C PANELBEATERS	30.09.2010	10074	06.11.2010	\$1,946.53
	01.01.2011	10116	05.02.2011	\$833.80
				7447.59
6. CENTRAL SERVICE STATION	17.06.2010	10007	06.08.2010	\$2,942.58
	05.07.2010	10014	06.08.2010	\$2,942.58
				5885.16
7. JAMES BARRY	17.06.2010	10009	17.06.2010	\$1,345.11
	24.07.2010	10045	24.07.2010	\$387.28
	05.02.2011	10134	05.02.2011	\$328.61
	02.05.2011	10172	02.05.2011	\$533.70
	18.04.2011	10180	18.04.2011	\$360.22
				2954.92
8. MARK LAWRENCE	02.05.2011	10178	16.05.2011	\$1,530.00
	10.03.2011	10149	10.03.2011	\$2,624.63
	11.11.2010	10094	11.11.2010	\$2,250.00
	11.09.2010	10065	11.09.2010	\$1,066.00
	06.06.2010	10033	06.06.2010	\$3,039.55
				10510.18
9. MARKET PARTS	17.07.2010	10010	24.07.2010	\$1,923.20
	14.10.2010	10080	21.10.2010	\$2,750.00
	03.01.2011	10118	10.01.2011	\$2,162.81
	11.04.2011	10163	18.04.2011	\$748.97
	03.08.2011	1017	10.08.2011	\$3,070.30
				10695.28
10. NIGEL EMERSON	13.06.2010	10038	13.06.2010	\$363.27
	21.08.2010	10056	21.08.2010	\$315.00
				678.27
11. OWEN DENTON	11.07.2010	10006	11.07.2010	\$2,043.50
	09.10.2010	10078	09.10.2010	\$1,789.46
				3832.96

Invoice Listing By Debtor - Report Preview

Review Question: What could be improved on this report?

Review Question: What other fields might you add?



Skills checklist

Tick the skills that you have learned in this unit.

Skills	✓
Use Grouping	
Calculate Group Totals	

Runtime Parameters

4

In this unit you will learn how to Set up Parameters that can be specified by users when running reports.

By the end of this unit, you will be able to:

- ▶ Use Combo Boxes
- ▶ Use List Boxes
- ▶ Use Text Boxes
- ▶ Use Date Boxes
- ▶ Explain the use of other parameter methods
- ▶ Use available output options
- ▶ Add Parameter Values to Reports

Overview

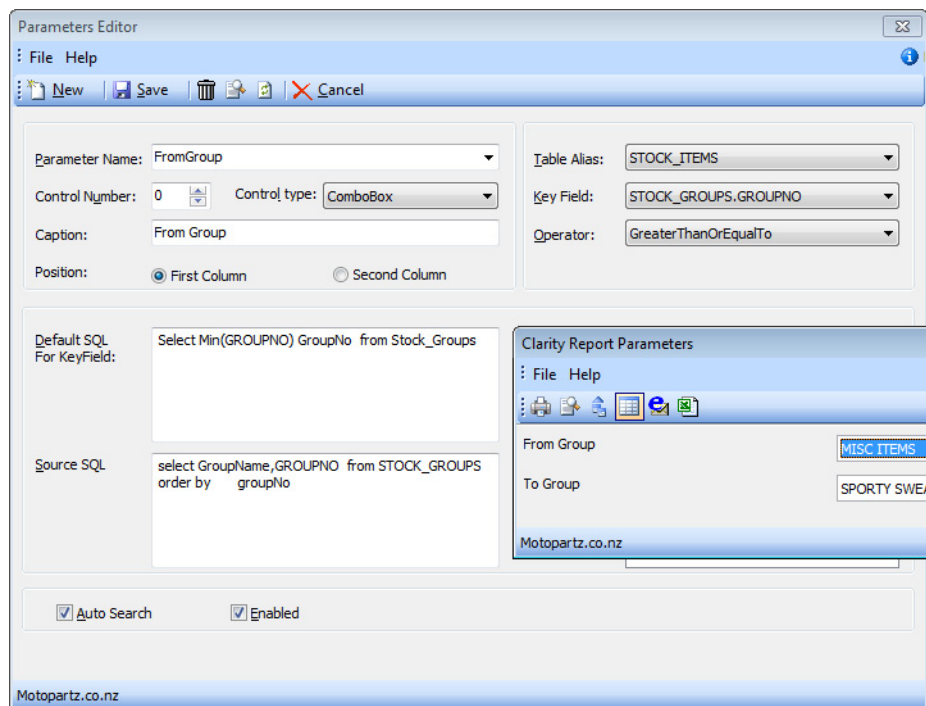
This chapter shows how to create runtime parameters. Runtime parameters allow users to add search criteria to a report at runtime. Runtime parameters for a particular report are saved in a .CLS file with the same name as the report they are for.

Parameter Set Up

Parameters Editor

To view the Parameters Editor:

- 1 From the **Tools** menu, select **Runtime Parameters**.
- 2 The Parameters Editor window is displayed. A description of each field on the window is shown below.



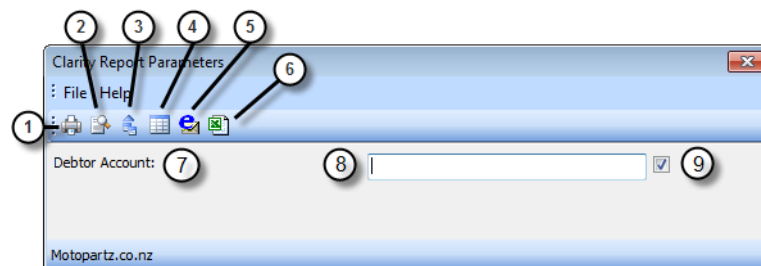
Default Parameter Editor

Fields	Description
Parameter Name	This is the name of the parameter that will be used when the parameter value is accessed in code on the Calc tab. This topic is covered in Clarity (Advanced).
Control Number	This determines the order of the components when they show on the parameter dialogue box. 0 is first, 1 is second and so on.
Control Type	The type of control that will appear on the Clarity Report Launcher (text box/combo box etc...). See item 8 in the example below
Caption	The caption that will appear alongside the control on the Clarity Report Launcher. The caption is important because it will describe to the user which field the selection criteria will control. See item 7 in the example below.
Table Analysis	The name of the data pipeline that the selection criteria affect.
Key Field	The field within the data pipeline that is filtered by the selection criteria.
Operator	The search operator that is applied to the key field, e.g. equal/greater than/less than.
Default SQL for Key Field	Only used with Listbox, Combobox, Checkbox, Textbox and OrderBy components. The value that is entered into this list determines what is selected by default in the Listbox/Combobox when the Clarity Report parameter window pops up. For OrderBy fields, this is a comma-separated list of fields that you can select to order your data by (the labels on this window change to reflect this when you select an OrderBy-type parameter).
Source SQL	Only used with Listbox, Combobox and OrderBy components. The SQL that will retrieve the values to be displayed in the Listbox/Combobox when the Clarity Report Launcher pops up. The name of the field for your "Key Field" must match one of the names of the fields in your source SQL statement. If there's a difference (e.g. your Key Field is HDR_SEQNO and your combo has the field SEQNO), change "SEQNO" to "SEQNO AS HDR_SEQNO". This is called <i>aliasing</i> a field and allows Clarity to match that field to the Key Field. For OrderBy parameters, this determines the default OrderBy field.

Display Fields	The fields that are highlighted in this field are the data fields that will be displayed in the Listbox/Combobox when the Clarity Report Launcher pops up. To enter values into this field, double-click on the SQL statement in the Source SQL box. If it is a valid SQL statement, the list will automatically populate. The Key field must be included in this list to be able to save the parameter. Of the selected fields, you can determine which ones will actually show by Ctrl-clicking to select and unselect fields.
Enabled	Whether or not the component is enabled by default. Enabling/disabling can also be achieved at runtime by selecting or unselecting the checkbox displayed alongside the component. See item 9 below.

An example parameter window is shown below. Items 1 - 6 are selected when the desired parameters are set, to determine where the report is output to.

The options are:



Report Parameter Options

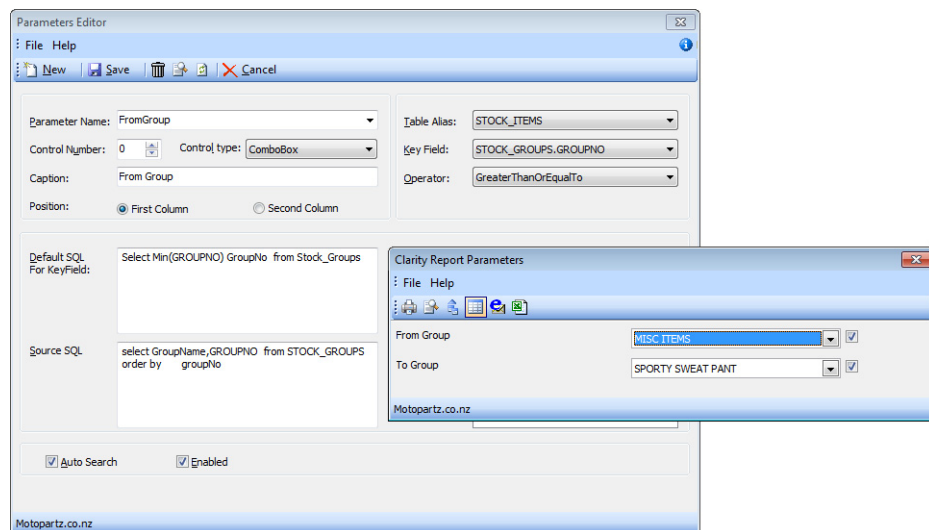
- 3 Print to printer/file
- 4 Preview to screen
- 5 Export data to file
- 6 View grid
- 7 Send as attachment.
- 8 Export to XLS Report

The other fields are:

- 9 Caption
- 10 Parameter field
- 11 Enabled checkbox

Control types

Combo Box

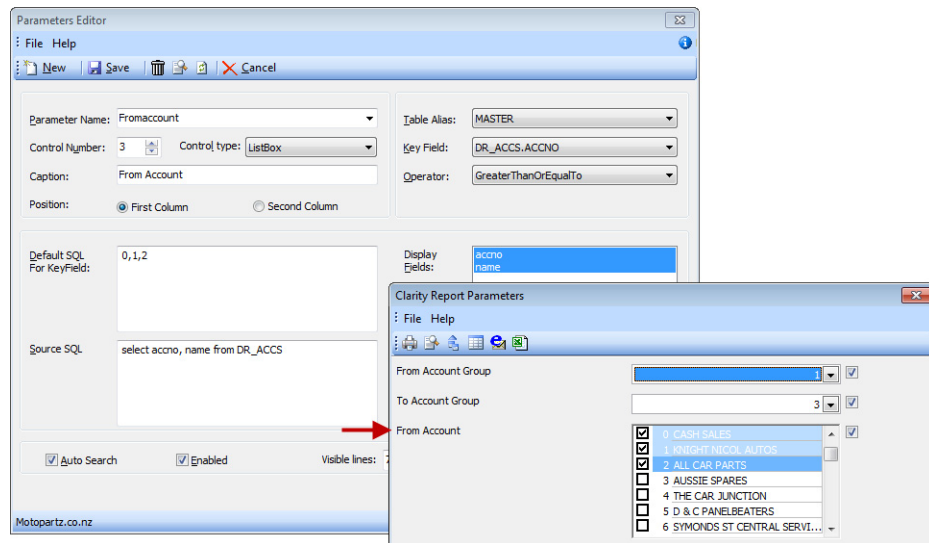


Combo Box Parameter

This parameter would select all periods where the STOCK_ITEMS.STOCKGROUP field is greater than or equal to the stock group selected by the user in the **From Secondary Stock Group** dropdown list.

Notice that the default SQL uses "select min(groupno) from stock_groups", which gives us the first stock group as a default. **Groupname** and **Groupno** are the fields that are displayed in the dropdown list.

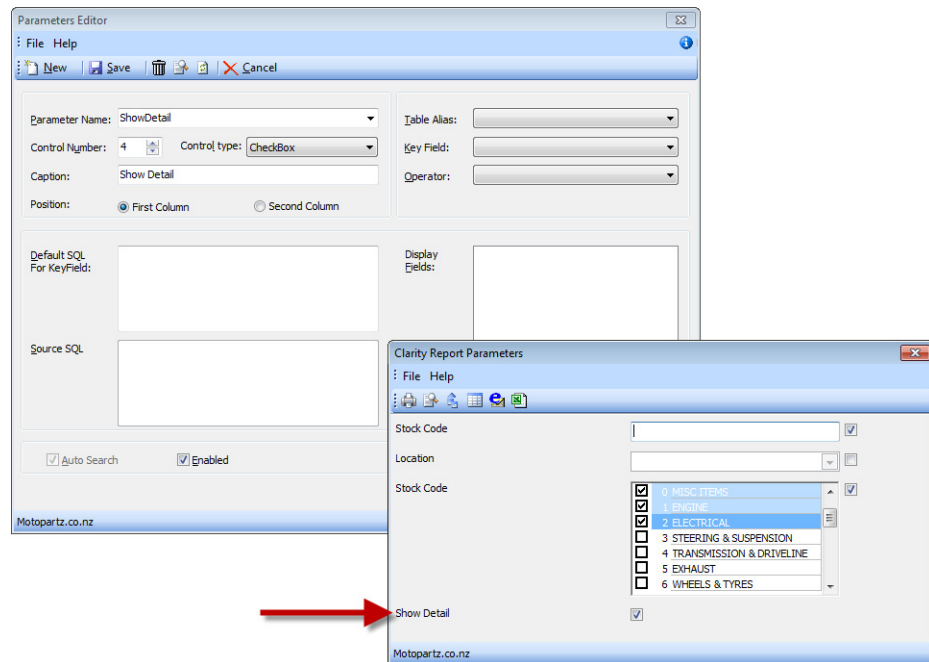
List Box



List Box Parameters

This parameter would select all records from DR_TRANS where ACCNO equals any of the accounts that the user has selected in the list box. Notice the extra field "Visible lines", which tells Clarity how many lines you would like the list box to display.

Check Box

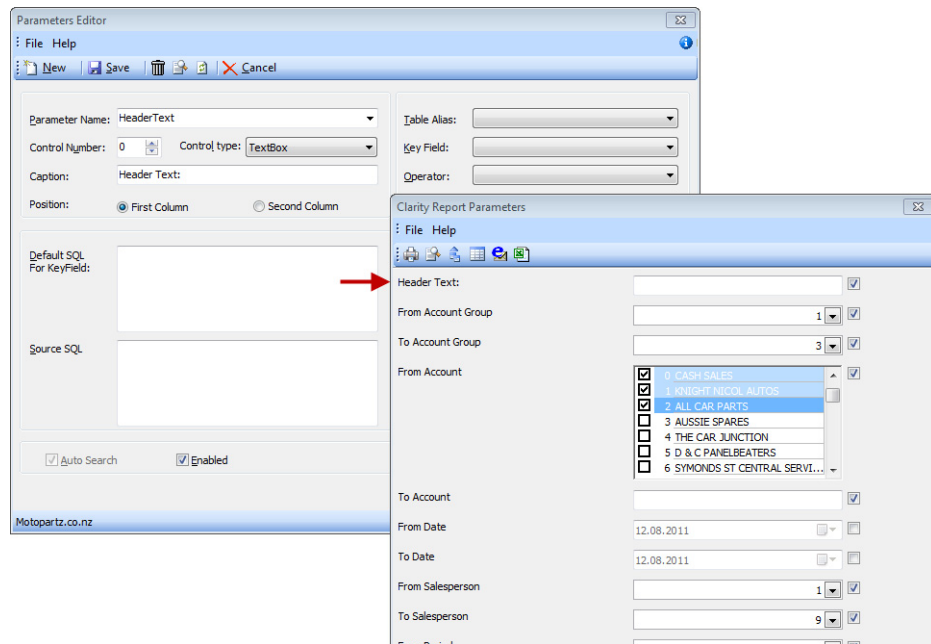


Check Box Parameter

This parameter would pass a true value to the report if the user selects the option. Notice how this parameter is not tied to any data fields, so it does not affect the filtering. Instead, this field is intended for use within **Calc code**. In this case it would be used to determine whether or not the detail is visible.

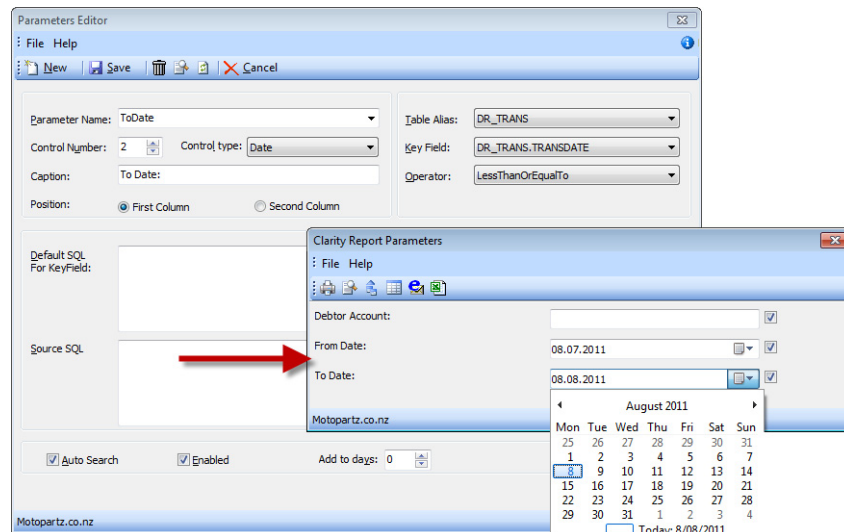
Text Box

This is another 'unbound' parameter. It could be used to pass some text to the report which could then be printed in the header using a **DBText** field pointed to the pParams data source and the **HeaderText** field. You could also add some default text which would print every time, unless the user decides to edit it.



Text Box Parameter

Date



Date Parameter

This parameter would select all records from Master where DR_INVLINES.TRANSDATE is less than or equal to the date selected by the user. One alternative here is to put the word **TODAY** in the **Default SQL** field. This would always default the selection to the current system date.

Others

Other parameter types are also available and some are new to Clarity in recent versions. These include:

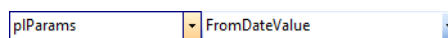
Parameter	Description
OrderBy	These parameters allow you to specify which field to sort the data by that comes to your report at runtime. It also offers a Desc or descending sort order flag.
DebtorSearch/CreditorSearch	These parameter types allow the user to type a question mark ? to bring up the EXO Business Debtor or Creditor Search screen to select an account. These parameters always filter on Accno .
StockSearch	This parameter type, like the previous type, brings up an EXO Business search box but for stock items.
GLAccSearch/GLAccGroupSearch	Same as above but for GL Accounts and Account Groups.

DateRange	This parameter allows users to select a date range, rather than just a single date value. The operator should be "Between" when using this parameter type.
Spacer/Line	These two are special parameters act as a vertical gap between parameters. They have no functional use and is purely added for aesthetic reasons, allowing you to group similar parameters logically in the dialogue box.
AnalysisCodeSearch	This parameter type, like the previous type, brings up an EXO Business search box but for Analysis Codes items.

Displaying Parameter Values in reports

Parameter values may be displayed in a report using the DBCalc Component.

Instead of selecting a data source, select **plParams** from the **data pipeline** name dropdown list and select **ParameterNameValue** from the data field dropdown list. Clarity automatically suffixes the parameter name with 'Value' and then assigns it the value entered by the user.



The image shows a screenshot of a software interface with two dropdown menus. The first dropdown menu on the left has 'plParams' selected. The second dropdown menu on the right has 'FromDateValue' selected. Both menus have a small downward-pointing arrow on their right side.

DBText Parameter Selection



Skills checklist

Tick the skills that you have learned in this unit.

Skills	✓
Use Combo Boxes	
Use List Boxes	
Use Text Boxes	
Use Date Boxes	
Understand other parameter methods	
Add Parameter Values to Reports	

More Reporting Functions

5

In this unit you will learn about extra reporting functions to build better reports.

By the end of this unit, you will be able to:

- ▶ Perform Multiple Table Joins
- ▶ Create Calculated Fields
- ▶ Limit content via search tab
- ▶ Specify Sort Orders
- ▶ Use Report Wizard
- ▶ Hide Bands & Fields
- ▶ Add parameters to a completed report
- ▶ Add Report to EXO Business

Overview

In this tutorial we are going to build a management report that summarises sales transactions in the EXO Business Database. This tutorial demonstrates the use of multiple tables in a single data source, grouping data and runtime selection parameters.

Tutorial 3 - Sales Report

The questions are for a selected timeframe:

- What were the total sales per invoice and per customer?
- How much product was moved with each invoice?

We will answer these questions by selecting data at the line transaction level (DR_Invlines) and then use the report to summarize the data.

Planning the Data Source

Planning the data source first.

Which fields are required to create this report?

Items	Fields Required
Customer name and number	DR_Accs.accno, DR_Accs.name
The Invoices for each customer	DR_Trans.Invno
The quantity and total amount for each Invoice	DR_Invlines.StockCode, DR_Invlines.Description, DR_Invlines.Quantity, DR_InvLine.UnitPrice

Total Amount for each invoice line is calculated by Quantity * Unit price

Which tables are needed to supply these fields?

DR_Accs, DR_Trans, DR_Invlines

How are these tables linked?

DR_Trans.Accno = DR_Accs.Accno, DR_Invlines.Hdr_seqno = DR_Trans.Seqno

Building the Report

Task 1: Create a new Report

- 1 If you have an existing report open, go to the **Design** tab and select **File > New Report**. This creates a clean **Design** tab and a clean **Data** tab on which to create a new report. Had you selected **File > New** you would have retained your data queries from your previous report and only the report canvas would be cleared
- 2 Go to the **Data** tab.
- 3 Select **File > New**.
- 4 Double-click on the **Query Designer** icon.
- 5 Select **DR_ACCS** then **DR_TRANS** and you will see the join table box below.
- 6 Join the **DR_TRANS** table to the **DR_ACCS** table via the **ACCNO** field. This will mean removing all fields with common names leaving only the **ACCNO** fields.

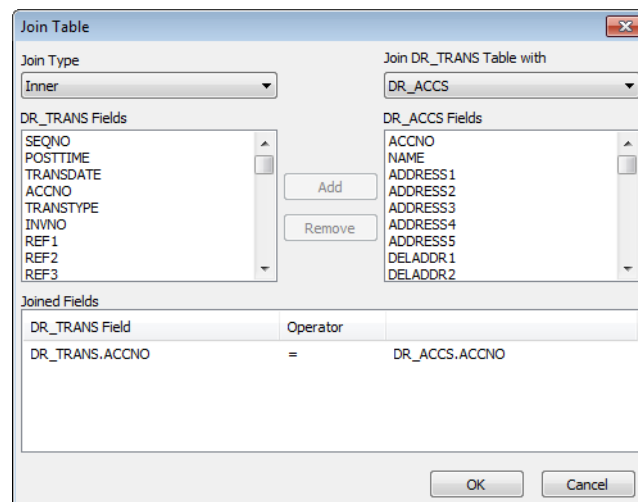
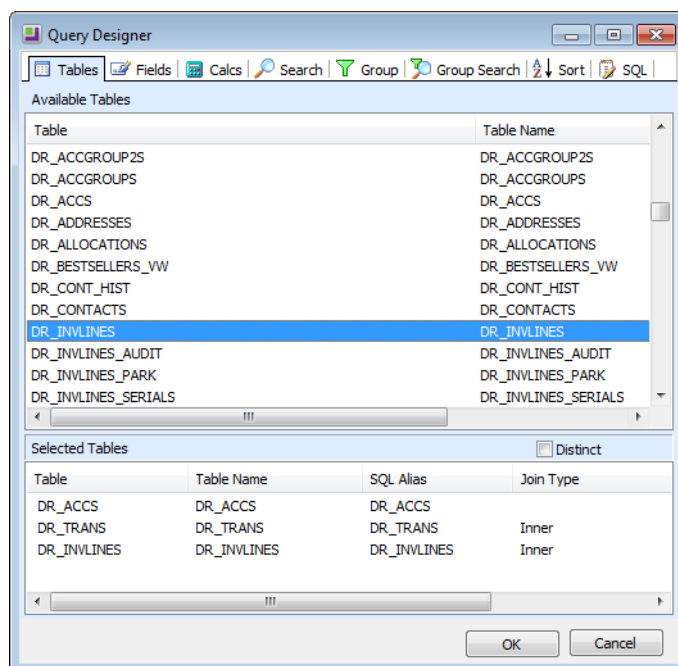


Table Joins

- 7 Now add the **DR_INVLINES** table, *inner joining* **DR_INVLINES.HDR_SEQNO** to **DR_TRANS.SEQNO** and again removing unnecessary join fields.

8 The **Query** tab should then look like this:



Data Joins Tab

9 Click on the **Fields** tab.

10 Click the following fields:

- DR_ACCS.ACCNO
- DR_ACCS.NAME
- DR_TRANS.INVNO
- DR_INVLINES.STOCKCODE
- DR_INVLINES.DESCRPTION
- DR_INVLINES.QUANTITY
- DR_INVLINES.UNITPRICE

Task 2: Calculate the Total for Each Line Item

- 1 Click the **Calcs** tab.
- 2 Maximize the **Query Designer**.
- 3 Double-click on (or select) any field. If you are creating an expression, it does not matter which field you select as it is going to be overwritten by the expression that you type in.
- 4 Select **Expression** from the dropdown list in the **Function** column.

5 Enter the following calculation over the top of the wording **expression**:

DR_INVLINES.UNITPRICE * DR_INVLINES.QUANTITY

6 Change the **Name** of the **Field Alias** to *LineTotal*.

Field Alias	Field SQL Alias	Function
LineTotal	DR_INVLINES.UNITPRICE*DR_INVLINES.QU...	DR_INVLINES.UNITPRICE*DR_INVLINES.QUANTITY

Line Total Calculation

7 Click on the **Sort** tab.

8 Because we are going to group the report by **DR_ACCS.ACCNO** (first) and then **DR_TRANS.INVNO** (second) you must sort the data by **DR_ACCS.ACCNO** (first) and then **DR_TRANS.INVNO** (second).

Sort Fields				<input type="checkbox"/> Natural Order
Field Alias	Field SQL Alias	Table SQL Alias	Desc (z > a)	
ACCNO	DR_ACCS.ACCNO	DR_ACCS		
INVNO	DR_TRANS.INVNO	DR_TRANS		

Data Sort Tab

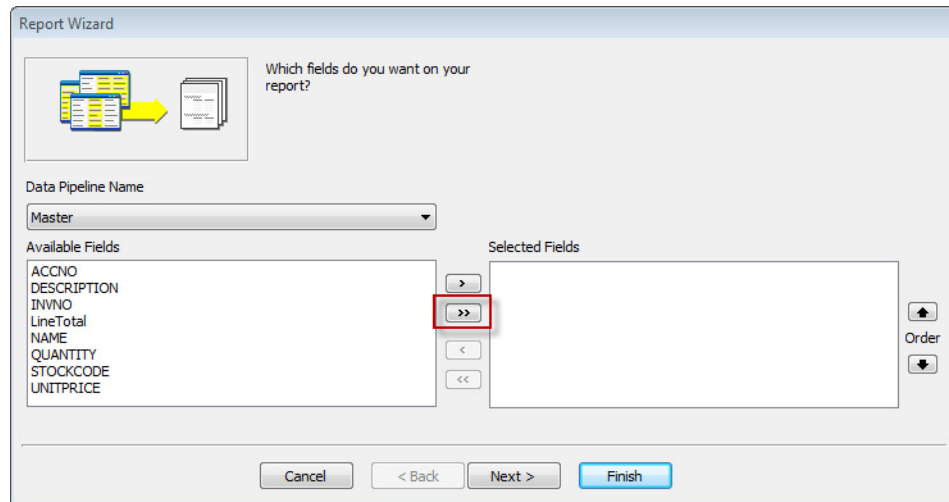
9 Click on the **SQL** tab.

10 You will be presented with the SQL script that prepares this data view for you. Rename the **data view** to *Master* and click **OK** (bottom right).

Task 3: Generate the Report via the Report Wizard method

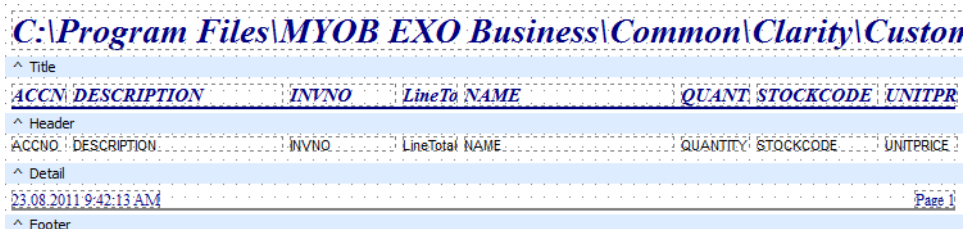
- 1 Move to the design workspace via the **Design** tab
- 2 Select **Master** and press **OK**. You will see this dialogue whenever you move onto the design workspace when there are no objects on the canvas.
- 3 Select **File > New**. This creates a new report but retains the 'Master' data source that you just created).
- 4 Double-click the **Report Wizard** icon.

- 5 Select all available fields by clicking the double arrow.



Report Wizard

- 6 Click **Next** until you reach the screen with the chequered racing flag.
- 7 Select **Modify the report's design**.
- 8 Click **Finish**. The layout may look something like the image below. Notice how some of the fields may not have been able to fit on a single line and the order is not very logical. Re-arrange these fields and resize them so that they all fit, then resize the bands to eliminate the extra vertical space that is freed up.



Format after using wizard

- 9 Press **CTRL + S** and save the report under the name SalesReport.CLR
- 10 Preview the report. This report contains data in its raw form. The data doesn't really answer the proposed questions, but it does give us something we can transform into answers. Notice the data in the LineTotal column. We can use this total to compute the total per Invoice and per company.

Modify Basic Layout

Task 1: Calculate Total Amount for Each Company

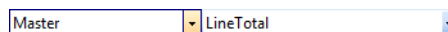
- 1 Return to the design workspace.
- 2 Select **Report > Groups**.
- 3 Click **Add**.
- 4 Select the **Master.ACCNO** field as a group field and click **Add** to add it to the list of groups.
- 5 Click **OK**. A group header and group footer band will appear as two bands on the canvas. Notice the descriptions on these bands. The number shows which group the band belongs to and the word 'ACCNO' shows the field to which the group is assigned.
- 6 Separate the group footer band from the Detail band by dragging it downwards.

TIP



To set the font size and style for the next component you use, click on any existing component before clicking the toolbar to add a new component. The new component will always pick up the size and style of the last component that was selected.

- 7 Place a **DBCalc** component in the **Group Footer** band and set it to calculate the sum of the **LineTotal** field. This gives us the total amount per debtor account.



Line Total DBCalc

- 8 Right-align the **DBCalc** component with the **LineTotal DBText** component in the **Detail** band and set all numeric components and their labels to right justified.

Task 2: Calculate Totals for Each Order

- 1 Select **Report > Groups**.
- 2 Click the **Add** button and then select **Master.INVNO** from the dropdown list and click **Add**.
- 3 Click **OK**. New group header and group footer bands are created for the INVNO group.
- 4 Separate the **INVNO group footer** from the **Detail group Footer**.

- 5 Add two **DBCalc** components to the **INVNO Group** footer band and set them to calculate the sum of the **Quantity** and **LineTotal** fields respectively.
- 6 Right-align the DBCalc components with the corresponding DBText components in the detail band.

Task 3: Fix the Repeating Fields

- 1 Select the **Accno** and **Name** DBText components in the detail band and move them into the Accno group header band.
- 2 Move the **Invno** DBText from the **detail** band into the **invno group header band**.

C:\Program Files\MYOB EXO Business\Common\Clarity\Master

^ Title						
<i>Abb No</i>	<i>Name</i>	<i>Invno</i>	<i>Stock & Description</i>	<i>Quantity</i>	<i>STOCKCODE</i>	<i>Line Total</i>
^ Header						
ACCNO : NAME						
^ Group Header[0]: ACCNO						
		INVNO				
^ Group Header[1]: INVNO						
		STOCKCODE	DESCRIPTION	QUANTITY	STOCKCODE	LineTotal
^ Detail						
				m(QUANTI		m(LineTotal)
^ Group Footer[1]: INVNO						
						m(LineTotal)
^ Group Footer[0]: ACCNO						
08.08.2011 2:49:30 PM						Page 1
^ Footer						

- 3 Preview the report. Now the customer and invoice information appears only once at the top of each corresponding group.

Aesthetics

Task 1: Modify the Bands

The data in the detail band is not needed to answer the questions we posed at the beginning of this tutorial.

In fact, it adds unnecessary 'noise' to the report and makes it difficult to see the answers calculated in the group footer bands. We can resolve this issue by hiding the detail band.

- 1 Return to the design workspace.
- 2 RIGHT-CLICK over the white space of the detail band and select **Visible**, which will remove the check mark next to it and hide the detail band.
- 3 Preview the Report. Now only the totals are shown. However, the Invno appears on a separate blank line. It would be easier to read the report if we placed the Invno with the total.
- 4 Return to the design workspace.
- 5 Move the **Invno** DBText from the **Invno Group header** band to the **Invno group footer** band. Now that the INVNO group header is empty, it too can be hidden.
- 6 The layout should look something like this:

The screenshot shows a report design workspace with the following structure:

- Title:** C:\Program Files\MYOB EXO Business\Common\Clarity\Master
- Table Header:**

Abb No	Name	Invno	Stock	Description	Quantity	STOCKCODE	Line Total
--------	------	-------	-------	-------------	----------	-----------	------------
- Header:** ACCNO : NAME
- Group Header [0]:** ACCNO
- Group Header [1]:** INVNO
- Table Detail:**

STOCKC	DESCRIPTION	QUANTITY	STOCKCODE	LineTotal
INVNO		m(QUANTI		m(LineTotal)
- Group Footer [1]:** INVNO
- Group Footer [0]:** ACCNO
- Page Footer:** 08.08.2011 2:49:30 PM, Page 1

Task 2: Set the Format of the DBCalcs

- 1 Right-click over the **LineTotal** DBCalc in the **Accno group footer** band and select **Display Format**.
- 2 Select the first menu option with a dollar sign.
- 3 Do the same for the **LineTotal** DBCalc in the **Invno group footer** band.

Task 3: Complete the Accno Group Footer Band

- 1 Select the **DBCalc** components in the **Accno group footer** band and set the **Font** to **bold**.
- 2 Place a shape in the **Accno group footer** band.
- 3 Right-click and select **Set to parent height & parent width**.
- 4 Right-click and select **Send the shape to the back**.
- 5 Set the colour of the shape to light grey. The layout should look something like this.

The screenshot shows a 'Sales Report' layout. The table structure is as follows:

Sales Report						
Acc No.	Name	Inv No.	STOCKCODE	Qty	UNITPRICE	LineTotal
Header						
NAME						
Group Header[0]: ACCNO						
Group Header[1]: INVNO						
			STOCKCODE	QTY	PRICE	LineTotal
Detail						
	INVNO		STOCKCODE	QTY	PRICE	LineTotal
Group Footer[1]: INVNO						
						n(LineTotal)
Group Footer[0]: ACCNO						
23.08.2011 1:27:12 PM						
						Page 1
Footer						

Adding the grey bar

Task 4: Put the Finishing Touches on the Report

- 1 Delete the **StockCode**, **Description** and **UnitPrice** labels from the header.
- 2 Change the remaining header labels to be more readable.
- 3 Change the report heading from **Master** to **Sales Report** and **right click > Autosize**.
- 4 Set the **Name** field in the **ACCNO** header band to **Autosize**

The screenshot shows the final 'Sales Report' layout after modifications. The table structure is as follows:

Sales Report						
Acc No.	Name	Inv No.	Qty	LineTotal		
Header						
D. & C PANELBEATERS						
Group Header[0]: ACCNO						
Group Header[1]: INVNO						
			FREIGHT	QTY	PRICE	LineTotal
Detail						
	INVNO		STOCKCODE	QTY	PRICE	LineTotal
Group Footer[1]: INVNO						
n(LineTotal)						
Group Footer[0]: ACCNO						
23.08.2011 1:45:30 PM						
Page 1						
Footer						

Report 3 Re-jigged

5 Preview the report.


Act No.	Name	Invno	Qty	Line Total
1 KNIGHT NICOL AUTOS				
		10023	1	\$5.10
		1001	5	\$889.90
		10016	1	\$10.00
		1002	5	\$270.00
		1003	5	\$65.70
		10077	-1	-(19.95)
		10108	5	\$1,730.25
		OR1000	2	\$110.54
				\$3,178.54
2 ALL CAR PARTS				
		10001	2	\$133.04
		10011	4	\$105.12
		10020	1	\$1,633.83
		1004	5	\$1,200.00
		10041	5	\$341.20
		1006	1	\$85.00
		10088	1	\$73.91
		1006	10	\$576.80
		10059	5	\$785.35
		10084	1	\$651.00
		10098	1	\$3.72
		10110	0	\$0.00
		10123	5	\$2,249.00
		10126	0	\$0.00
		10141	5	\$1,216.00
		1018	1	\$0.00
		10185	5	\$77.55
		10180	0	\$0.00
		10186	1	\$13.95
		10181	2	\$25.90
		10189	1	\$4.45
		10190	10	\$576.80
		10191	10	\$325.10
		OR1016	1	\$243.20
				\$18,232.82
3 AUBIE SPARES				
		10004	1	\$32.14
		10022	2	\$219.70
		10027	1	\$48.19
		10050	1	\$5.10
		10084	1	\$90.00
		10071	1	\$54.88
		10088	5	\$1,098.00
		10102	10	\$61.50
		1011	1	\$54.88
		10113	1	\$1,633.83
		10120	2	\$125.72
		1014	0	\$0.00
		10146	1	\$19.95
		10170	5	\$131.40
		1019	1	\$5.99
		OR1011	1	\$202.25

Report 3 Preview

6 Save your changes CTRL-S.

Add Runtime Parameters



Task 1: Add period start -stop selection parameters

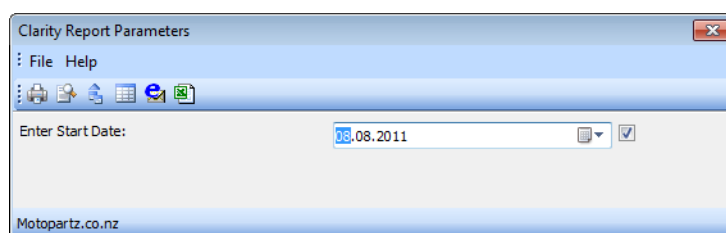
- 1 Select **Tools > Runtime parameters**.
- 2 Click on the  icon on the parameter toolbar.
- 3 Enter the parameter name **StartDate**

IMPORTANT



Parameter names cannot contain spaces.

- 4 Select **Date** from the control type dropdown list.
- 5 Enter the **Caption Enter Start Date**.
- 6 Enter the **Table Alias Master**.
- 7 Select the **Key Field DR_INVLINES.TRANSDATE** from the field list.
- 8 Select the operator **GreaterThanOrEqualTo**.
- 9 Press the Save icon  on the toolbar.
- 10 Click on the  icon on the toolbar. Your parameter display should look like this:



Enter Start Date Parameter

Notice the option on the right hand side that allows you to select all dates by disabling this criterion at runtime.

- 11 Close this preview window.

12 Add an **EndDate** parameter in the same way.

The screenshot shows the 'Parameters Editor' dialog box with the following settings:

- Parameter Name:** EndDate
- Control Number:** 1
- Control type:** Date
- Table Alias:** Master
- Key Field:** DR_TRANS.TRANSDATE
- Operator:** LessThanOrEqualTo
- Caption:** Enter End Date:
- Position:** First Column Second Column
- Default SQL For KeyField:** (Empty text box)
- Display Fields:** (Empty text box)
- Source SQL:** (Empty text box)
- Auto Search:** Enabled
- Enabled:** Enabled
- Add to days:** 0

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End Date Parameter

Task 2: Add account range selection parameters

- 1 Click on the **Add** button to add a new parameter.
- 2 Enter the **Parameter name** *AccountStart*.
- 3 Enter the **Caption** *Start From Account*.
- 4 Select **DebtorSearch** from the control type,
- 5 Select **MASTER** as the **Table Alias**.
- 6 Select **ACCNO** as the the **KeyField**.

7 Select the Operator *GreaterThanOrEqualTo*.

Parameters Editor

File Help

New Save [trash] [refresh] [print] [cancel]

Parameter Name: FromAccount Table Alias: Master

Control Number: 2 Control type: DebtorSearch Key Field: DR_ACCS.ACCNO

Caption: From Account: Operator: GreaterThanOrEqualTo

Position: First Column Second Column

Default SQL For KeyField: select min(accno) from dr_accs Display Fields:

Filter SQL:

Auto Search Enabled

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From Account Parameter

8 Click on the the **Save** icon on the parameter toolbar.

9 Now add a new parameter **AccountEnd**, similar to the AccountStart parameter but using **LessThanOrEqualTo** as the operator.

Printing & Export to File

You will note from looking at the 'Output' menu that Clarity Reports can be printed in quite a number of different formats. Amongst these are Text, Excel and PDF.

The following screenshot shows the icon that launches the **Export to file** feature. This icon is situated on the Clarity Report launcher on which you select your chosen parameters.

Clarity Report Parameters

File Help

Print [Export to file] [Excel] [PDF] [Cancel]

Enter Start Date: 08.08.2011 [calendar] [check]

Enter End Date: 08.08.2011 [calendar] [check]

Start From Account: B. AUSSIE SPARES [check]

To Account: 34. LAYBY CLEARING ACCOUNT [check]

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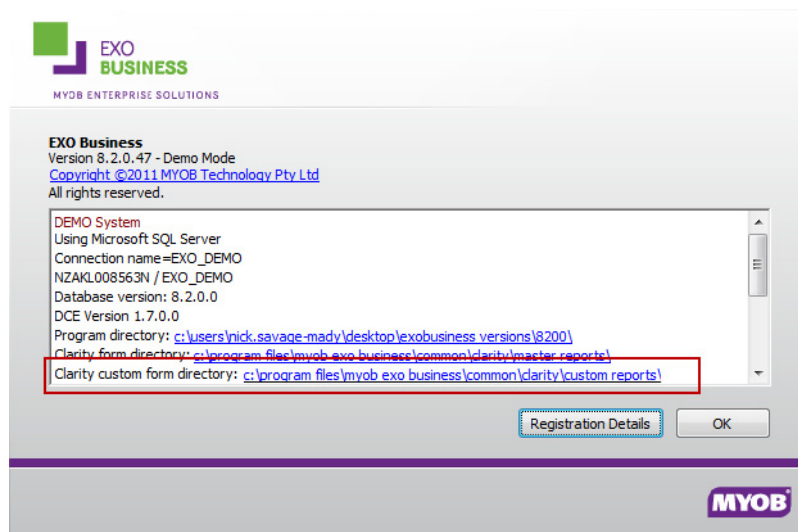
Parameter Export

Using the report you built in the above exercise, send the output to a PDF file. After you have run it, open up the resulting PDF file to ensure that you have all of the information.

Adding Clarity reports to EXO Business Menus

Task 1: Add to EXO Business menu and launch

- 1 Save your report files in the Clarity Custom Form Directory. This is found by clicking **Help > About** on EXO Business's main menu. .



Folder Location

IMPORTANT



The .CLS file (parameter file) will have to be moved manually as simply saving a report to a different folder does not move the .CLS file.

- 2 Go to the menu designer. This may be found in **ExoConfig > Staff > Drop Down**
- 3 **Menus** or may exist as **Utilities > Set Up Staff/Menus > Drop Down Menu Designer** on your EXO Business menu.
- 4 Select **Run Clarity Report** from the list of procedures on the right-hand side. Drag and drop this to the menu column (branch) as you wish.
- 5 Enter the **Caption** that will appear on the menu (e.g. " **Sales Report**") and enter the name of your newly created Clarity report (e.g. "**SalesReport.CLR**") in the **Parameters** edit box and press **OK**.
- 6 You may use the **Up** and **Down** buttons to reposition your report menu item.
- 7 Save the menus.

8 Go back to EXO Business and refresh you settings using **File > Refresh Settings**.

Your menu option should appear in the menu that you dragged it to and you should be able to run the report by clicking on the menu item.



Skills checklist

Tick the skills that you have learned in this unit.

Skills	✓
Perform Mutliple Table Joins	
Create Calculated Fields	
Limit content via search tab	
Specify Sort Orders	
Use Report Wizard	
Hide Bands & Fields	
Add paramters to a completed report	
Add Report to EXO Business	

Appendices

6

This unit provides additional information that will be useful when creating reports.

- ▶ Appendix A: Database Primer
- ▶ Appendix B: Key EXO Business Tables
- ▶ Glossory

Appendix A - Database Primer

Overview of Databases

This appendix covers the bare basics of databases, with a brief introduction to the concepts of linking and joining.

Database introduction

A database is a collection of related data. A simple form of a database would be a phone book, with names, addresses & phone numbers.

The three most common types of databases are:

- 1 Flat Files - All of the information is stored in one single file or table, like the phone book.
- 2 Object-oriented databases - data is stored as conceptual "objects" which hold links to other objects. An object may relate to any entity about which data may be held, such as a person, a company or an event.
- 3 Relational databases - This is the type that EXO Business uses. Relational databases are a set of tables that are made up of rows and columns. Each table holds a different type of information in a number of columns or "fields". A field is a basic structural unit of the database and represents a slot or space in which data can be placed. In good relational database design, very little information is duplicated from table to table and this means that to get meaningful data, you often have to link related data, such as Account details in one table (Name, contact details, etc.) with a second table of transactions. This is best done with a join using a "key field", which is a number unique to the account and stored against each transaction. One example of a key field is Account Number (Accno). The remainder of this section deals with relational database concepts.

Joins and linking

When extracting data from more than one table, the tables need to be linked in order to get a meaningful set of information. The way the tables are linked is very important as there are various different types of joins that will produce different results. Joins are best performed on Key fields, in one of the two tables, which are fields that have unique values for every row in the table:

Outer Joins

Left Outer - returns all rows from the left (or "first" or "main") table with only the matching rows from the right table. Blank rows in the right table are returned for all the non-matching rows from the left table. This kind of join is used frequently.

Right Outer - returns all rows from the right (or "second" or "child") table with only matching rows from the left table. Blank rows in the left table are returned for all the non-matching rows from the right table. This kind of join is not used very often.

Full Outer - returns all rows from both tables, matching the rows where possible and creating blank rows in both tables where there is no match found for the other. This kind of join is sometimes used.

Inner Joins

Uses a comparison operator to match rows from two tables and only returns rows that match in both.

Self Join

Used to join a table to itself and used to reduce the number of queries when comparing different columns of the same table.

Appendix B - Key EXO Business Tables

Overview

This appendix outlines the basic structure of the key tables inside EXO Business and the major joins normally used.

Debtors and Creditors

The structure in these tables is very similar and the relationships between related tables are identical. Where you see DR , substitute CR for the creditors system. The accounts are held in DR_ACCS, with transaction headers in DR_TRANS. The transaction headers store the summary information for transactions such as invoices and credits where multiple lines exist. The invoice number is stored, plus details like delivery address, total amount and so on. The common link between these tables is ACCNO. The next table, that often needs to be linked with these two, is the DR_INVLINES table. This holds the line detail, such as stock code, plus qty, unit price, unit cost (useful for margin reporting), tax and other details. It holds the ACCNO field, as well as INVNO for joining to the other two tables.

DR_ACCGROUPS - Stores the names of the account groups.

DR_ADDRESSES - Is for multiple delivery addresses, not normally needed in reporting.

DR_ALLOCATIONS - Stores information about allocating cash receipts and is used for multi-currency.

DR_CONTACTS - Stores the information about individual contacts, if used.

DR_CONT_HIST - Stores notes about the contacts.

DR_LINE_DISCOUNTS and DR_PRICES - Store information about the more complicated pricing structures and discounts.

Stock

The stock tables are considerably simpler than debtors and creditors, but follow the same principles.

STOCK_ITEMS - Stores the details of the stock items, price, availability, supplier details

STOCK_GROUPS - Stores the names of the stock groups

STOCK_TRANS - Stores transactions, with quantities, costs and references

STOCK_LOCATIONS - Stores details of the different warehouses, if required.

STOCK_SERIALNOS - Store serial number information if required.

STOCKTAKE_CTRL & STOCKTAKE_TOTALS - Are used for stocktaking and are not normally referred to in reporting.

General Ledger

The general ledger subsystem is also relatively simple.

GLACCS - Holds the account master file information, with the nature of the account (balance sheet, dr/cr, taxstatus).

GLTRANS - Stores the transactions

GL_ACCGROUPS - Holds the group names.

GL_SUBACCS - Stores master-file information about the sub accounts, if used

GL_CONTROL - Stores various control file settings

There are also a range of tables for storing information about the general ledger reports and budgets.

Sales Orders and Purchase Orders

These are two pairs of tables, like the debtor and creditor transactions, they require a header and line table. SEQNO is used as the order number.

SALESORD_HDR - Is the header table with information on delivery address, customer order number and other reference items.

SALESORD_LINES - Contains the information about individual products ordered, quantity, price, supplied, invoiced and any text entries.

PURCHORD_HDR - Is the header table with information on delivery address and other reference items.

PURCHORD_LINES - Contains the information about individual products ordered, quantity, price, supplied, invoiced and any text entries.

Other Tables

There are a variety of other tables; many are self-explanatory. If you are unsure of what tables or fields are used for, view the data to check.

Common Joins

JOIN TABLE		To Table	
Table	Field	Field	Table
DR_ACCS	ACCNO	ACCNO	DR_INVLINES
DR_ACCS	ACCNO	ACCNO	DR_CONTACTS
DR_ACCS	ACCNO	ACCNO	DR_TRANS
DR_ACCS	ACCGROUP	ACCGROUP	DR_ACCGROUPS
DR_TRANS	SEQNO	HDR_SEQNO	DR_INVLINES
DR_INVLINES	STOCKCODE	STOCKCODE	STOCK_ITEMS
SALESORD_HDR	ACCNO	ACCNO	DR_ACCS
SALESORD_LINES	HDR_SEQNO	SEQ_NO	SALESORD_HDR
SALESORD_LINES	STOCKCODE	STOCKCODE	STOCK_ITEMS
STOCK_ITEMS	STOCKGROUP	GROUPNO	STOCK_GROUPS
STOCK_ITEMS	SUPPLIERNO	ACCNO	CR_ACCS

Glossary

This glossary defines the technical terms and concepts related to the MYOB EXO Business Clarity Report Designer

A

Advanced Component Palette A toolbar that contains advanced components.

Align The act of setting components' positions so they line up with one another.

Align or Space Toolbar A toolbar that allows you to align or space components so that they have a uniform appearance. Select View > Toolbars > Align or Space to launch this toolbar.

AutoSize A speed menu option available for text components. When AutoSize is set to true, the component adjusts its width so that all of the text is displayed.

B

Band A section of canvas that describes how part of the report will look. A band is labelled in the section divider immediately below it; thus, the first band is called the 'header', the second is called the 'detail' and the third is called the 'footer'.

Barcode A component in the Standard component palette that renders barcodes. Use the Edit toolbar to set the data to be encoded. Right-click and access Configure to select bar code types.

Bounding box (1) A method of component selection by which you right-click your mouse and drag it so it encompasses the components to be selected. (2) The box that appears around the components to be selected as you drag your mouse.

Bring to Front A speed menu option that allows you to move an object in front of other objects. Use this option to control the appearance of over-lapping objects.

C

Calcs tab An advanced tab in the Query Designer used solely by EXO Business developers from which you can create a calculation based on the data in the database.

Calcs page A page in the Query Wizard that allows you to make a calculation based on the data in the database.

Calculation An option in the Query Wizard /Query Designer that allows you to derive new data from existing database fields.

Canvas The area in the design workspace that contains the reports layouts. The canvas is divided into rectangular areas called bands.

Component An element used to control how the report looks. Each component has a unique purpose. In order to place a component in the design workspace, click the icon on the component palette and then click on the white space of the band in which you want the component to appear. When a component is selected, an edit or drop-down list may appear in the upper left hand corner of the design workspace. This area provides different options depending upon the selected component.

Configure A speed menu option for the Crosstab component. It allows you to access the Crosstab Designer.

Crosstab A component that presents summarized data in a grid format. Crosstabs are designed by right-clicking over the component and accessing the Configure option.

Crosstab Designer The dialog displayed when the Configure option on the speed menu for the Crosstab component is selected. A Crosstab layout is created via this designer.

Crosstab Wizard A tool in the design workspace that generates a report based upon the choices you make in the wizard. Access this tool by selecting File > New, then clicking the Crosstab Wizard icon.

D

Data-aware components Components to which you can assign data fields. In the Report Designer, these components are prefixed by DB, meaning 'database'.

Data Component Palette The palette from which you create data-aware components. Click on the icon and click on the canvas to create a data-aware component.

Data module A behind-the-scenes container for dataviews. When you want to copy data from one report to another, export the data module from the first report and import the data module into the second.

Data pipeline A special kind of component that manages the connection to the database and supplies data to a report. It also controls which rows of data are used to generate the report. It represents an EXO Business database table or SQL query and provides data in the form of fields and records. A Pipeline is opened automatically when you log into EXO Business.

Data traversal The act of moving through the rows of a database table or data selection.

Data Tree A toolbar used in the design workspace to access the data selected in the data workspace. Select View > Toolbars > Data Tree to launch this toolbar.

Data tab The tab that you access to select data.

Database table A structure that facilitates the storage and retrieval of organized data.

Dataview The visual representation of a query displayed on the data tab. It contains the data selected in the Query Wizard or Query Designer. Dataviews allow you to make changes to a query via the Query Designer, which can be accessed by clicking the icons in the dataview tool-bar.

DBComponents Data-aware components that can retrieve data from a query. The DB prefix stands for database. Use the edit toolbar to choose data for a DBComponent.

Design tab The tab in which you create your report layout.

Detail Band A band that prints once for every row of data.

Display Format A speed menu option available for textual components. This option allows you to display a value in a certain format (decimals with a dollar sign, for example). Right-click over a textual component to access the Display Format.

Dock The act of dragging a toolbar to one side of the workspace and dropping it such that it 'sticks' to that side. A docked toolbar moves when you move or resize the Report Designer.

Draw Toolbar A toolbar used to fill a component with colour or to colour the border around a component.

E

Edit A speed menu option for a Rich Text component that opens an application that allows you to open a file and format text.

Edit Toolbar A toolbar that allows you to set the most important property of a component. This toolbar changes to select database fields for data-aware components, adjust lines for the line component, select shapes for the shape component and type text for the label component.

Expression It is used when creating a calculation. It allows you to create other fields based on the data from existing fields.

F

Floating window A toolbar detached from the edge of the Report Designer and released so that it 'floats' in front of the Report Designer.

Footer Band A band that prints (usually the page number, date, time) at the bottom of each page of the report.

Format Toolbar This toolbar gives you the ability to modify text-based components in a number of ways. You can change the font style and font size. You can bold, italicise or underline the text. You can justify a word or sentence to the left of the margin or you can centre or right-justify text. You can also change the colour of the text.

G

Group (1) A section of a report that contains a group header, detail and group footer band. Groups are assigned to a database field. Select Report > Groups to access the groups dialog. (2) A behind-the-scenes component that allows a report to be organized into separate sections, based on the value of a field.

Group Header Band A band that contains the header for a group. The components in a group header band appear at the beginning of a group.

Group Footer Band A band that contains the footer for a group. The components in a group footer band appear at the end of a group.

Guides The lines on the horizontal and vertical ruler that move as you move the cursor over the canvas.

H

Header Band A band that prints at the top of each page of the report.

Highlight To select text for editing. You highlight text by holding down the mouse button and dragging the cursor over text or by holding down the Shift key and pressing an arrow key.

I

Image A component on the Standard component palette that displays graphics (such as bitmaps, GIFs and JPEGs).

K

Keep group together An option in the group's dialog that sets the group so that the bands of the group will print on the same page

L

Label A component useful for titles and headings. Use the Edit toolbar to set the text for a label.

Label Template Wizard A tool that allows you to create mailing label reports by selecting printer information and choosing a label type.

Line A component in the Standard component palette that displays a line. Use the Edit toolbar to set the line orientation.

Lines A speed menu option for a memo that allows you to access the Memo Editor, from which you can open text only files.

M

MailMerge An option that appears when you right-click over a Rich Text component. It allows you to import field values into the Rich Text component.

MaintainAspectRatio A speed menu option available for images. It scales an image so that the height and width are adjusted based on the original image size.

Memo A special kind of component that allows you to load text into it. Right-click over the memo and select Lines in order to load text.

Memo Editor A dialog accessed via the memo component (right-click over the component and select Lines) that allows you to load and save text files.

N

Nudge Toolbar This toolbar allows you to move a component or a group of selected components one pixel at a time. See page 100 for a complete description of this toolbar.

O

Orphan (1) A component(s) that prints on a different page than the components within the same band or region. For example, if a DBText that's supposed to follow a DBMemo prints at the top of the next page rather than with the DBMemo, it is orphaned. (2) A group footer band that prints at the top of a page with no preceding detail bands.

Overflow Occurs when a stretchable component prints on additional pages.

P

Pagination A speed menu option for a Crosstab component that allows you to choose Across then Down or Down then Across printing for the Crosstab report.

ParentHeight A speed menu option that allows you to set the size of an object so that it matches the height of a band. Right-click over a component to select ParentHeight.

ParentWidth A speed menu option that allows you to set the size of an object so that it matches the width of a band. Right-click over a component to select ParentWidth.

Position dialog A speed menu option that allows you to change the size and position of an object. Right-click over a component to access the Position... dialog.

Preview A tab workspace where you can preview the generated report to see how it will look when printed.

Properties Settings for components such as font style, size and colour.

PipeLine A connection to the EXO Business database opened automatically whenever you log into EXO Business.

Q

Query A request for data using a language specific to databases called SQL. The Query Designer and Query Wizards create SQL queries as we choose the data we want for a report.

Query Wizard A tool that allows you to select data for a report.

Query Designer A tool that allows you to make changes in the data selection.

R

Region A special kind of component that can contain other components.

Report Tree A toolbar that displays all of the components in a report. It is particularly helpful in organizing components within bands.

Report Wizard A tool that allows you to create a report by answering a few simple questions.

ReprintOnOverflow A speed menu option that sets a component so that it will reprint. For example, a memo has an accompanying label. If the label is set to ReprintOnOverflow, it will reprint on each page of the memo's text. Right-click over a component to select ReprintOnOverflow.

Rich Text A component that allows you to print formatted text.

Rich Text Editor A dialog box accessible via the Rich Text component that allows you to replace text with database fields.

Rulers The design workspace has two rulers: the horizontal ruler and the vertical ruler. As you move a component in the workspace, you'll see a guide that tells you the location of the component on the rulers.

S

Select To click on an object. (See 'highlight' as a contrasting term).

Selection A group of selected components.

Selection handles When multiple components are selected, little grey boxes appear around the components. These selection handles indicate the objects that are selected.

Selection tool A tool used to select one or more components within the layout. It can also be used to clear any selection (by clicking in the white space of a band).

Send to Back A speed menu option frequently used with shapes that allows components to be moved to the background. If you want to use a shape as a background, use the Send to Back function.

Shift-click A method of component selection where you hold down the Shift key and then click on components. You can also remove a component from a selection using this method.

ShiftRelativeTo A speed menu option that allows you to associate components so that they print one after the other. This option is especially useful when you want one component (a memo, for example) to appear below another.

ShiftWithParent A speed menu option that allows a static component to print after a stretchable component. Right-click over a component to select ShiftWithParent.

Size Toolbar A toolbar that allows you to set all of the components in a selection to the same width or height.

Sizing The act of altering the size of a component with the sizing handles or the Position menu.

Sizing handles The little black boxes that appear when an object is selected. If you drag your cursor over one of the sizing handles, the cursor will change to a double-sided arrow. You can then resize the component by holding down the mouse.

Speed menu The menu that appears when you right-click over a component. The menu options vary depending upon the component.

SQL Structured Query Language The language that EXO Business uses to retrieve data from a database in an ordered form so that it can be used to create reports.

Standard Component Palette A toolbar that includes the most frequently used components for building reports.

Standard Toolbar A toolbar that contains standard functions, such as saving, opening and printing reports.

Start new page An option in the group's dialog that allows you to force a group onto a new page each time the group field changes value.

Static components Components that print just as they appear in the layout.

Status bar The bar at the bottom of the design tab that tracks the movement of selected components. It is useful for component placement and alignment in that it allows you to position components based on an exact measurement. It also displays the name of the selected component.

Stretch A speed menu option that applies only to stretchable components. When set to true, the component will change size depending upon the amount of text it contains. Right-click over a component to select Stretch.

Stretchable components Components that change size according to the amount of text they contain. A DBMemo is a stretchable component. Right-click over a component to set Stretch to true.

StretchWithParent A speed menu option that allows the selected component to change height according to the change in height of the band in which it resides. Right-click over a component to select StretchWithParent.

Style A speed menu option for the Crosstab component that allows you to choose between Repeated Captions or Standard printing.

Subreport A component that allows you to create a report within a report in order to show more levels of detail or to print several reports as one.

Summary Band A band that prints once at the end of a report. The band is typically used to summarize data. Select Report > Summary to create this band. An invoice total would be in the summary band.

SuppressRepeatedValues A speed menu option that prevents repeated values from printing.

System Variable A component that allows you to display the page number, time, date and other useful information.

T

Tabular A setting in the Data Tree layout tab that configures the drag and drop behaviour to create labels across the top of the page and data flowing down the page. The opposite of vertical.

Title Band A band that prints once at the beginning of the report. Select Report > Title to create this band.

Title bar The area at the top of a window that contains the window title and can be used to drag the window to a new position.

Toolbars Tools that allow you to modify a report layout. Select View > Toolbars to see a list of all toolbars.

V

Vertical A setting in the Data Tree layout tab that configures the drag and drop behaviour to create labels down the page and data across the page. The opposite of tabular.

Visible A speed menu option that determines the visibility of an object. Right-click over a component to select Visible. If the Visible option is set to false, the component will not appear in the report.

W

Workbench The area on the design tab that surrounds the canvas and contains tools used to modify the report layout...



Skills checklist

Tick the skills that you have learned in this unit.

Skills	✓
Identify Main Data Tables	
Join Definitions	
Understand Common Joins	
Glossary of Terms	