


The Report Designer

- Printed-paper and PDF reports are generated within the system using the FastReports printing components.
- These provide a professional report-design interface. Developers write SQL in the system to allow users to run queries which return data. At this point the FastReports interface takes over, allowing data to be organized into many different formats
- Orixa uses a "Banded Report Generator", this is a common type of reporting tool. Designers wishing to use Orixa reporting will find it quite easy if they already have some experience with Banded Reports.

Examples of Reports

ContractBilling Invoice 30/01/2020



Contract Code C-1012-fm

Ref fm

Billing Date 30/01/2020

Inv. Num. 20151

Code	Billing Item	ItemQty	ItemValue
marrs	Supp and maint April 2019 'on call to fix' fee	1.00	£1,500.00
marrs	Supp and maint May 2019 'on call to fix' fee	1.00	£1,500.00
marrs	Supp and maint June 2019 'on call to fix' fee	1.00	£1,500.00

Orixa Systems Limited is a UK registered Limited Company
Registered Company Number: 107470-98
Registered Company Address:
5a Southwick Ind Est, North Hydon Rd, Sunderland, S6245 9HN, UK.

PAYMENT DETAILS:
Please send details of all remittances to: adam@fulwellmill.co.uk.
Make payment by BACS to the following account details.
Orixa Systems Ltd, Barclays Bank Plc
Sort Code: 20-83-4191 Account No: 13672468
Quoting: C-1012-fm
Cheque payments to be made payable to Orixa Systems Ltd and sent to the above address.

Total Billed: £4,500.00

Payment terms: 30 days Invoiced

NON-UK CUSTOMERS
IBAN GB10 BARC 208369 13672468
Swift Code BARC GB22
Acc Name: Orixa Systems Ltd

Reports Example: Simple Billing Report

Report: Sales by Product

Product	Qty	Value
Product A	100	1000
Product B	200	2000
Product C	300	3000

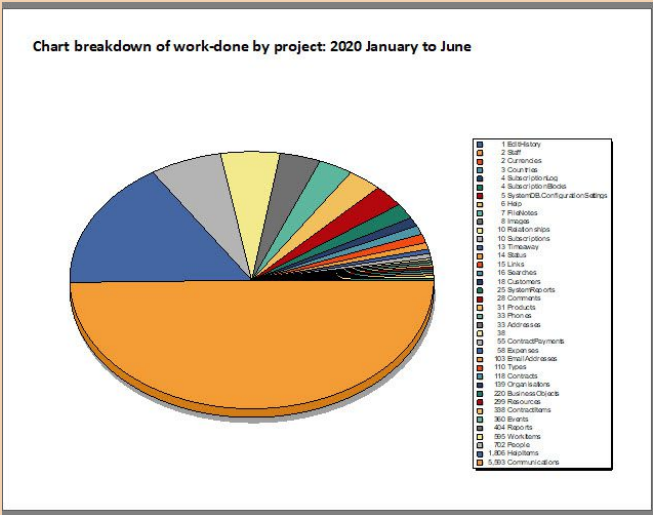
Report: Sales by Region

Region	Qty	Value
Region 1	100	1000
Region 2	200	2000
Region 3	300	3000

Report: Sales by Customer

Customer	Qty	Value
Customer A	100	1000
Customer B	200	2000
Customer C	300	3000

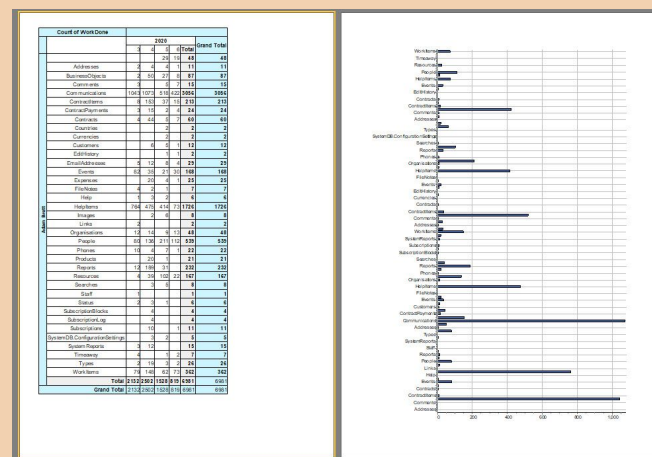
Reports Example: more complex multi-part layout



Reports Example: Pie Chart

System Table Status Listing Report 19/06/2020			
	1	1. Possible / Lead	
	2	2. Current / Active	
	3	3. Future	
33311	4	4. Discontinued	
Comments			
24	1	General	
25	2	Requires Action	
26	3	Action Complete	
10284	4	Completed Issue	
10288	5	Active	
Products			
10252	1	In development	
10293	2	Active	
10294	3	Archived	
Subscription Blocks			
32895	1	Blocked	
32897	2	UnBlocked	
32898	3	Subscription Ended	
Timeaway			
47	1	Requested	
48	2	Confirmed	
Contract Items			
10297	1	Planned	
10294	2	Agreed	
10399	3	Working/Underway	
10396	4	Billed	
10397	5	Paid/Completed	
10398	6	Cancelled	
Contracts			
10291	1	In negotiation	
10292	2	Active	
10293	3	Complete	
Expenses			
12657	1	New	
12658	2	Paid	
12659	3	Cancelled	
File Notes			
10584	1	General	
Images			
27	1	New, unpublished	
28	2	In Use / Published	
29	3	Old	
Organisations			

Reports Example: Multi-column



Reports Example: Data-Cube and Chart

Basic Concepts in reporting

Purposes of reporting in any system

1. Production of business paperwork such as receipts, wage-slips, purchase-notes, delivery notes etc.
2. Production of internal paperwork for permanent business records, such as attendance forms, quality tests, questionnaires etc.
3. Creation of management reports for sales, performance and activity of a business.
4. Generation of data for sharing with customers, suppliers, project partners, auditors etc.

Typical Features of reports

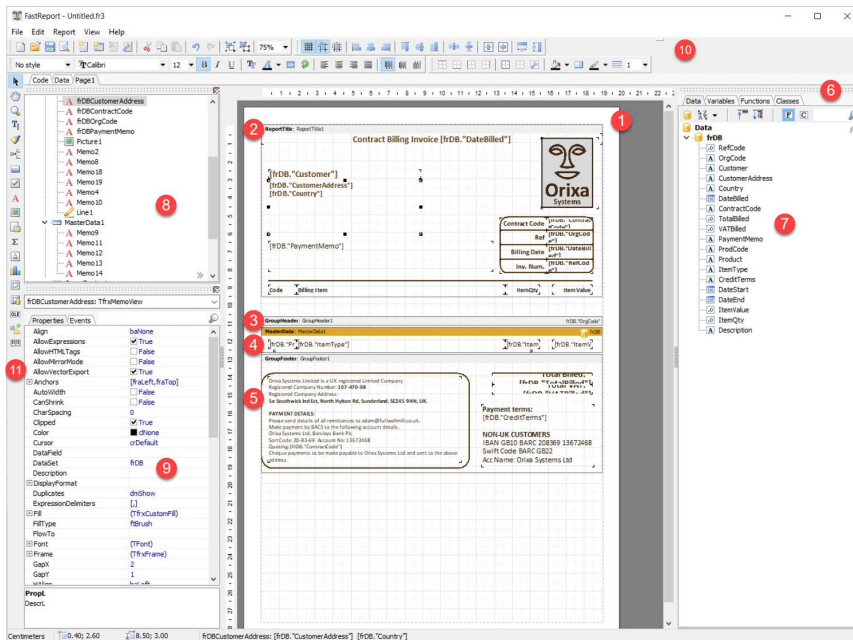
- Data is passed into the reporting tool from Orixia in the form of rows of data. These are converted into text on the output report in "bands", a report can have multiple bands such as "title", "header", "master data" "summary" "page footer" etc.
- Sorting and grouping: The reporting tool allows sets of data to be grouped for review and assessment. Sums and summaries can be linked to these groups. Charts and data-cubes can be generated for groups.
- The Orixia report designer allows for the addition of charts, data-cubes and data-grids as well as more free-flowing data formats. Data passed to the report can also include HTML-tag formatting to make a report's layout more attractive.

Brief highlights of the report-designer

The FastReport report designer is extremely fully featured. It has a dedicated PDF help manual which covers most areas of its operation in great detail. There is also an active FastReport website and newsgroup for detailed questions. For more information please visit this:

The following section of help gives a brief overview of the report-designer, as an introduction. This should introduce a few of the basic concepts used by the report designer.

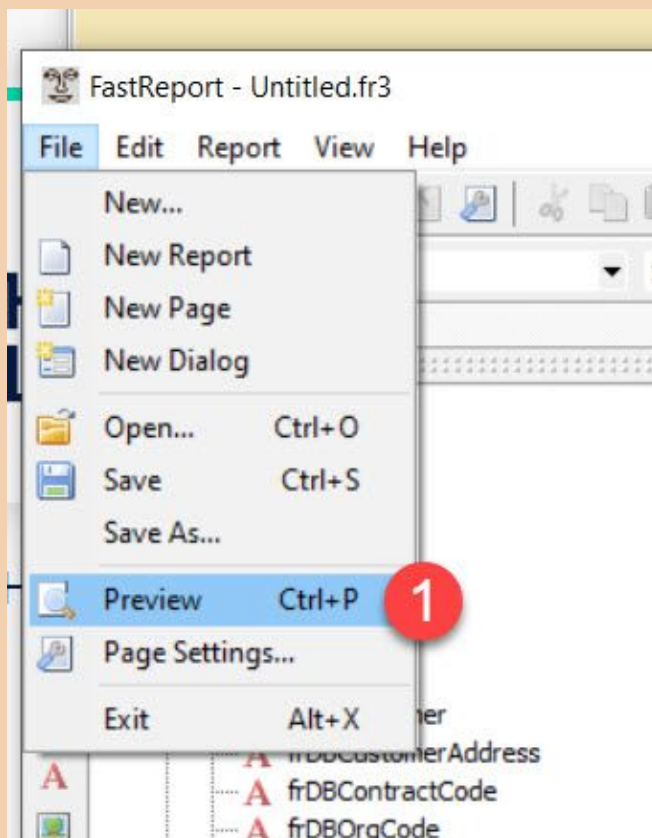
As with all other areas of Orixia, your system comes with a range of pre-designed reports. A good way to start to experiment is to create a copy of one of these, and try working with it.



Report Designer Main Window: Note that the exact layout of this screen can vary.

1. Page area, drag and drop items onto the page for them to be included in any print-out.
2. Report Title Band. Items included in this section of the report-template will print at the start of the report.
3. Group Header Band. This section will be printed conditionally when data in the report changes. If data supplied to a report contains "customer" records, the group header band can be used to group data by the customer.
4. Master Data Band. More detail on all types of band are provided below.
5. Group footer band. This is printed after the data-field that has been set to group the report changes. This area can be used to show summary data.
6. Data, variable, function and classes. These tab-headers give the report-designer access to different elements that can be included in the report. More detail on all these items are provided below.
7. Datafields list. When Orixia sends data to a report the available fields are displayed here. These can be dragged and dropped onto the report to be displayed when the report is printed.
8. Report elements treeview. All the items on the report are shown here. Click on any one to select it.
9. The Properties Inspector. All items on a report are shown according to values set for their properties, such as font-size, height, width etc. Once items are selected these properties can be edited here.
10. The main tool-bars. These give rapid access to editing the properties of elements of a report. Toolbar buttons control commonly used properties such as alignment, font-size, the width and colour of borders etc.
11. Report element toolbar. More details about this item are supplied below.

Detailed Features of the Report Designer



Report Designer Preview

Previewing Reports

Most of the time when you produce a report the main thing you want to do is to view the finished report.

This can be done at anytime by selecting "Preview" from the "File" menu, as shown (1.) on the left.

The main report design window

Once a report is open in Design Mode, design window will show.

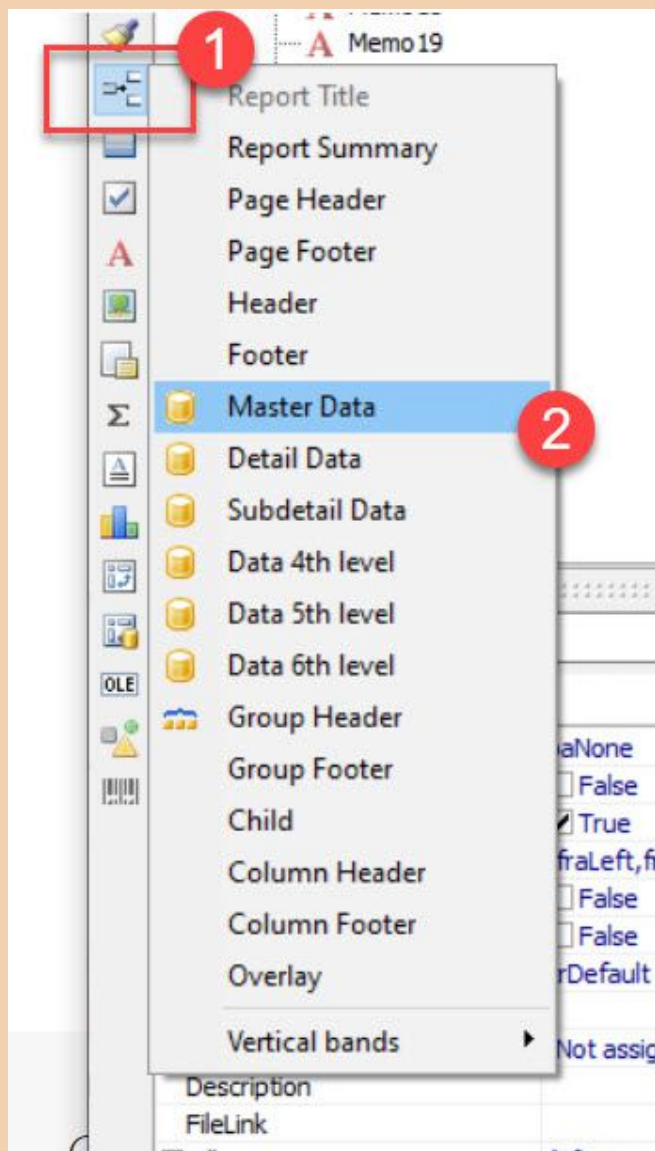
To add bands:

1. Click the "Bands" button on the Elements Toolbar.
2. Click to select the type of band you want to use

Once the band is added you can drag it around the report to place it in the correct order. Dragging is only possible with some types of bands. For example, page header and page footer bands are fixed in position.

If the report is a standard "banded report" it will appear somewhat similar to the image. The main types of data-band are:

- Report Title Band
- Page Header band
- Group band: This will show data returned to the report, and breaks, reprinting whenever this summary data changes.
- Data band: All individual rows of data, separated by the Group band.
- Group footer: This will show data at the end of each group, including summary data such as totals and counts.
- Page Footer band.



Report Designer Add Band

The Reports Object Inspector

All the properties of every report element can be edited from the Object Inspector (shown left).

You can use other tool-bars to set many properties, but many can only be set from the Object Inspector.

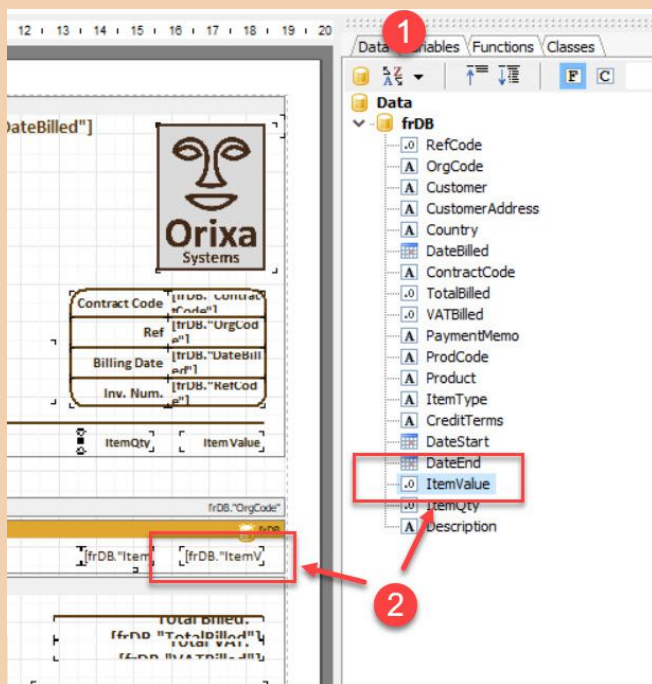
Select an element (or elements) and then edit the properties, and you will change how the element(s) are displayed in the finished report

1. Align: Choose whether text aligns right or left or is stretched to fit across a data-band.
2. AllowHTMLTags. If this property is set to true, text elements that contain common HTML tags such as "" and "<i>" will display bold or italic.
3. Datafield / Dataset. Select items from these lists to pick which data-field is used to populate a text-element.
4. Display Format (explained below) allows formatting of date / time / number fields.

Properties		
Align	baNone	1
AllowExpressions	<input checked="" type="checkbox"/> True	2
AllowHTMLTags	<input type="checkbox"/> False	
AllowMirrorMode	<input type="checkbox"/> False	
AllowVectorExport	<input checked="" type="checkbox"/> True	
⊕ Anchors	[fraLeft, fraTop]	
AutoWidth	<input type="checkbox"/> False	
CanShrink	<input type="checkbox"/> False	
CharSpacing	0	
Clipped	<input checked="" type="checkbox"/> True	
Color	■ cNone	
Cursor	crDefault	
DataField		3
DataSet	(Not assigned)	
Description		
⊕ DisplayFormat		4
Duplicates	dmShow	
ExpressionDelimiters	[.]	
⊕ Fill	(TfrxCustomFill)	
FillType	ftBrush	
FlowTo		
⊕ Font	(TFont)	
⊕ Frame	(TfrxFrame)	
GapX	2	
GapY	2	
HAlign	haRight	
Height	0.50	
HideZeros	<input type="checkbox"/> False	
⊕ Highlight	(TfrxHighlight)	
Hint		
⊕ Hyperlink	(TfrxHyperlink)	
Left	13.60	
LineSpacing	2	
ParagraphGap	0	
ParentFont	<input type="checkbox"/> False	
Printable	<input checked="" type="checkbox"/> True	
⊕ Processing	(TfrXObjectProcessing)	
⊕ Restrictions	[]	
Rotation	0	
RTLReading	<input type="checkbox"/> False	
ShiftMode	smAlways	
ShowHint	<input type="checkbox"/> False	
StretchMode	smDontStretch	5
Style		
SuppressRepeated	<input type="checkbox"/> False	
Tag	0	
TagStr		
Top	8.44	
Underlines	<input type="checkbox"/> False	
UnderlinesTextMode	ulmNone	
UseDefaultCharset	<input type="checkbox"/> False	
VAlign	vaBottom	
⊕ Visibility	[vsPreview, vsExport, vsPrint]	
Visible	<input checked="" type="checkbox"/> True	
Width	1.90	
WordBreak	<input type="checkbox"/> False	
WordWrap	<input checked="" type="checkbox"/> True	
Wysiwyg	<input checked="" type="checkbox"/> True	

Report Designer Object Inspector

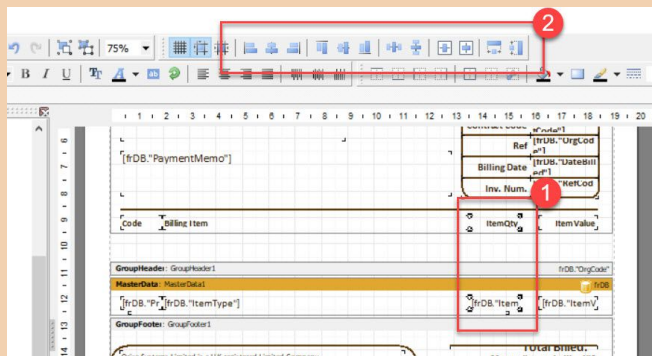
5. Stretch Mode: When a Text-element is placed on a report you may want to manage how it appears if text "overflows" the available space. StretchMode allows you to do this. Note that if a text element is set to "Stretch To Fit" then the **band** must also be set to stretch.



Report Designer Add Datafield

The "Data" Listing

1. Click on the "Data" heading.
2. Click on a data-field. Drag it to where you want to display it

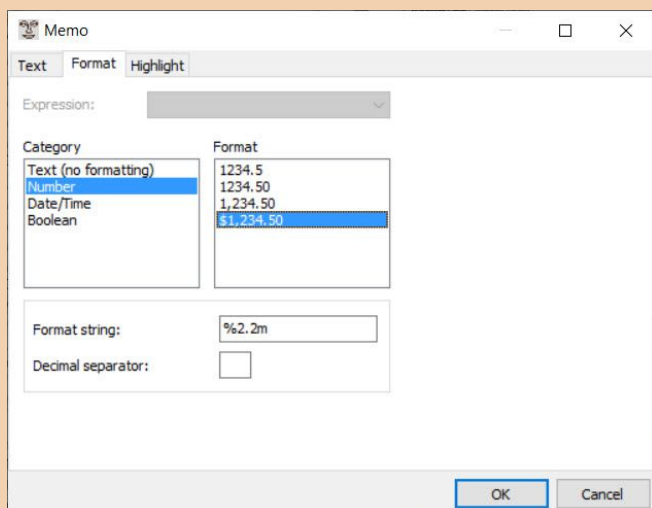


Report Designer Aligning Content

Main Toolbaers

All the toolbars in the report designer act on selected elements of the report.

1. Shift-click on items to select as many as you want
2. These buttons control the aligning and sizing of report elements.



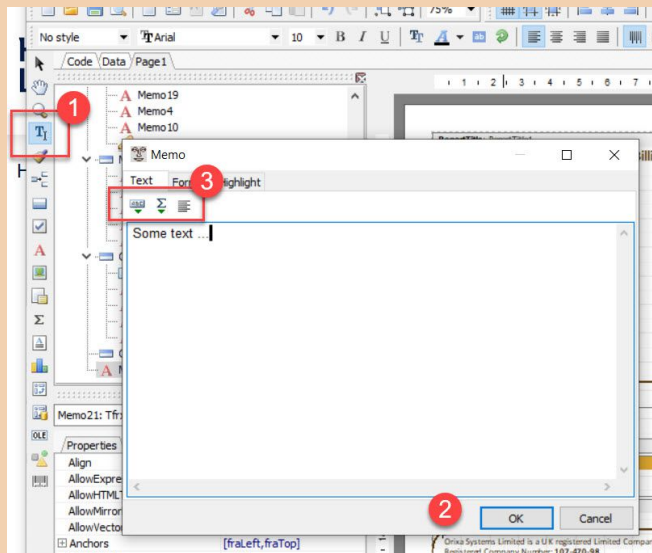
Report Designer Format Text

Formating text and numbers

When displaying numbers in your report you will usually want to format them to suit your local currency.

Click on the item in the report design which holds the number-field, and then find "Display Format" in the Object Inspector. Clicking on it will open the window shown on the left, allowing complex formatting of data returned by your App.

The same process is used to format Dates and Boolean values to suit your local needs.



Report Designer Add Text

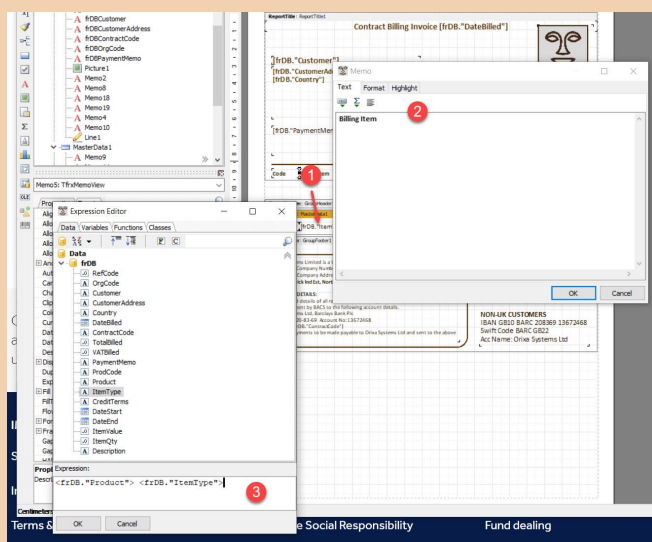
Adding text, including fields

When you add a new field to a report the memo-editor shown to the left will open.

This is a powerful editor which can be used to add text in many formats to your report.

The following sections show how to add system data-fields, computed fields and App data-fields.

1. Click on the "Text Element" toolbar button.
2. Type in the text you need, and click "OK"
3. Note that a text element can include many specialized forms of data, aggregates and functions (described below).



Report Designer Adding data

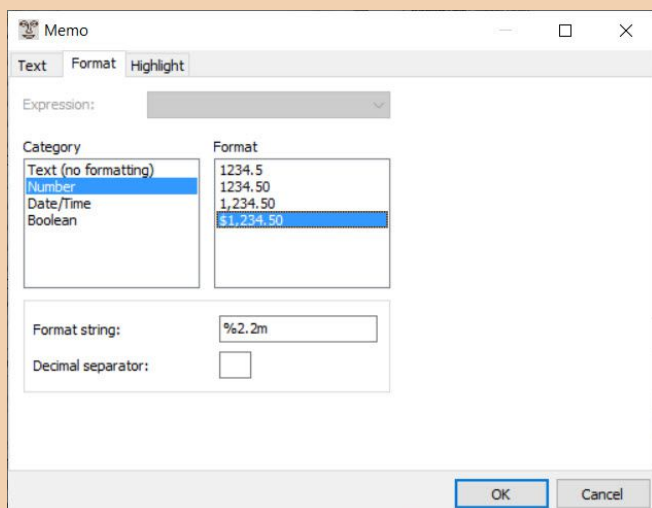
Adding data-fields and computed fields

Use the "expression editor" from the Memo editor to add items such as the current date and time, page number etc., to your report.

The resulting items will show in the report-page in the form:

[Date]
[Time]
[Page#]

1. Item selected on the report.
2. Text editor.
3. Data addition window, with expression editor.



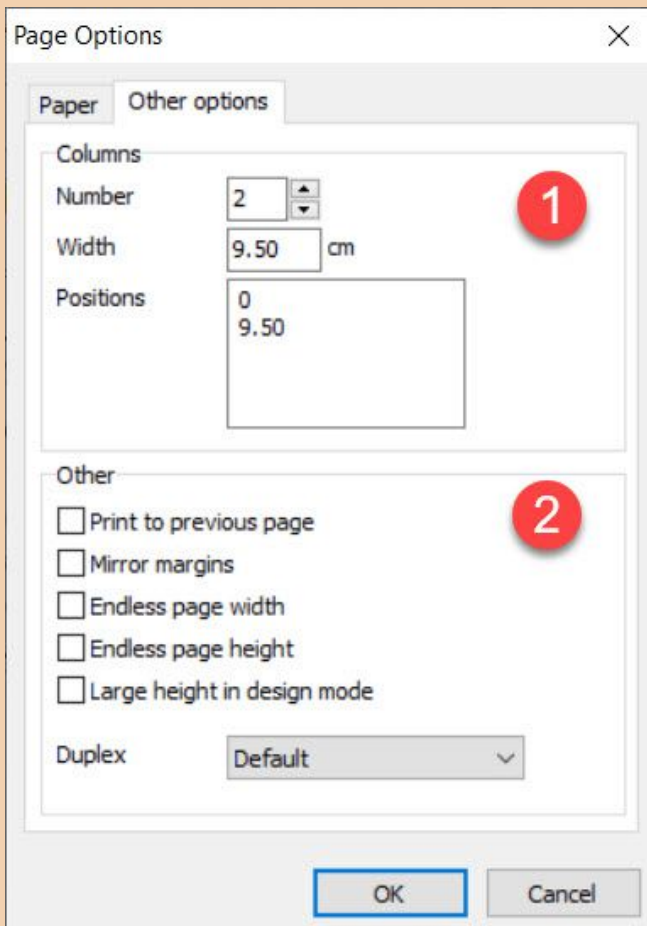
Report Designer Highlighter

Setting values for fields to be Highlighted

The Orix report-designer supports conditional formatting so that numbers can be presented in different color, or with bold font depending on their value(s).

1. Select the "Highlight" tab.
2. Click on the Add Button.
3. Create a condition which will trigger highlighting.
4. Alter the style of the highlighted text.

More details are provided in the FastReports documentation.



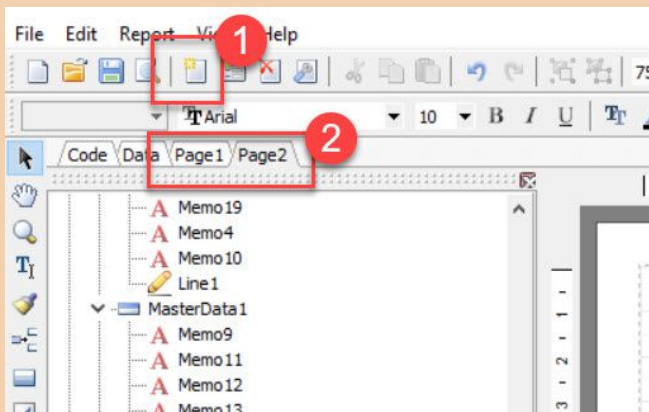
Report Designer Add Columns

Page properties

Double-clicking on the main "report-page" in the report-designer opens the "Page Options" window, shown on the left.

This allows alteration of the page layout, page margin and including creation of multiple columns on a page.

1. Select the number of columns and the width and position of each column.
2. Set other general properties of the report, including allowances to make continuous reports.



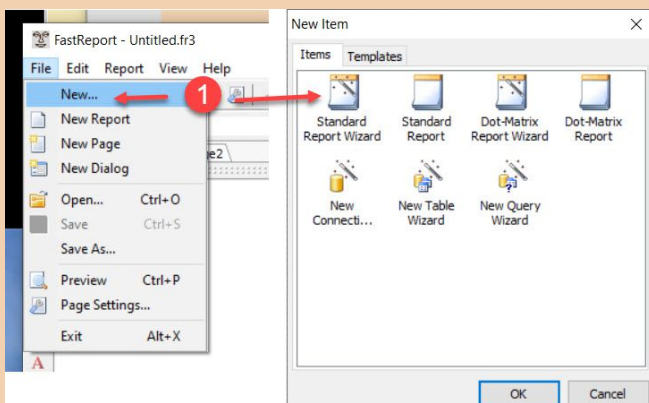
Report Designer Multipage reports

Multi-page reports

Reports can consist of more than one "page", pages are used to hold different representations of data in tabular, chart, data-cube or other formats. Each page can hold data-bands and summary bands.

More details are provided in the FastReports documentation.

1. Click on the "Add page" button in the main-toolbar.
2. A new, blank page will be added to the report template.



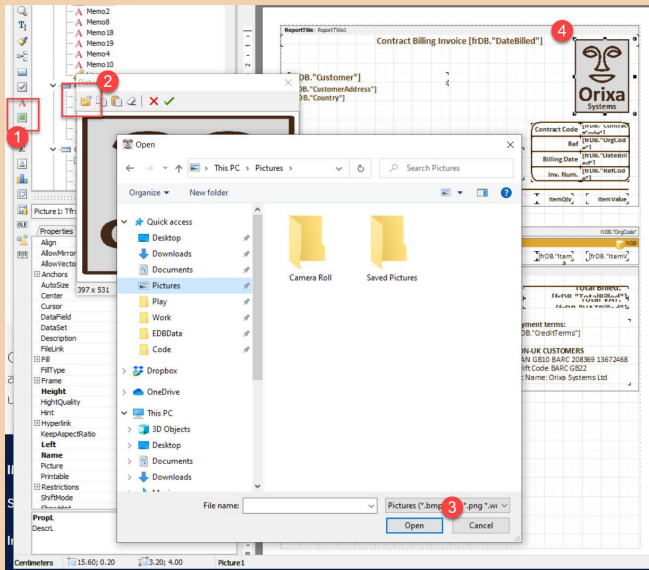
Report-creation wizard

When creating a new report it is often useful to use the built-in Report Wizard, shown at 1., in the image on the left.

This opens a multi-step tool which allows you to choose features for your report and automates a lot of the basic work laying out rows and columns of data-fields.

More details are provided in the FastReports documentation.

Report Designer New Report Wizard

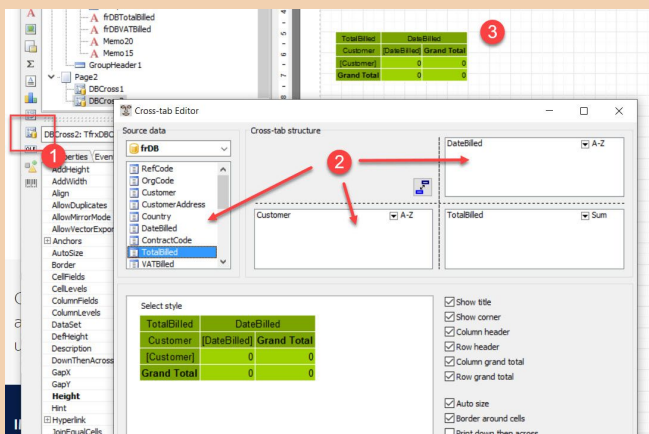


Report Designer Add Image

Adding Images

Static images (such as company logos) can be added to any report. If an images field is linked to image data from the database a report can include multiple images (for example pictures of products or staff members).

1. Click on the "Images" element in the Elements Toolbar.
2. Open the "pick file" dialog
3. Select the image from a file on disk (for a static image)
4. Image is displayed on the final report.



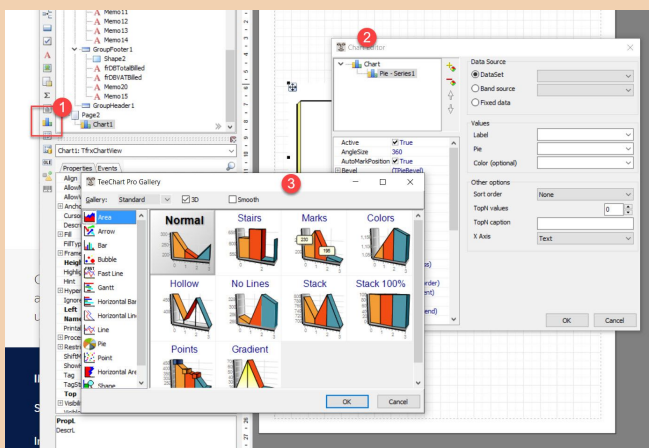
Report Designer Data Cube

Data-cubes

The FastReport system includes ability to add complex summary presentation of data.

More details are provided in the FastReports documentation.

1. Click on the "Data Cube" button on the Elements Toolbar.
2. Drag fields from the data0field list to the correct row, column and content list-boxes.
3. Set styling of individual parts of the data cube, and show it in a report.



Report Designer Add Chart

Charts

Can also be added to reports.

More details are provided in the FastReports documentation.

1. Click on the "Charts" button in the Elements toolbar.
2. The Chart-editing window appears, click on the "Add-chart-series" button.
3. Select the type and style of chart needed.

