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Introduction

This document introduces Crystal 2008. It is not expected that these options will change at all in future versions of Crystal, but some of the screenshots may differ from your installed version.

The concepts in this document are fairly generic, and will help you to configure Crystal reports using the basic wizards and also cover some more complex Crystal functions and formatting.

For additional information on advanced Crystal configuration, please refer to the SAP web site or Crystal help files.
Setting Global Options

Start Crystal Reports 2008:

Setting Global Preferences

Before starting your first report it is a good idea to set a few options within Crystal to make creating reports easier. You will only have to change these setting once and then they will apply to all future reports you create on this machine.

On the top menu bar of Crystal go to File/Options:

Next Click the Database tab at the top:
Here tick the box that says “Sort Fields Alphabetically”. This will make it easier to find fields you want to add to your new reports.

Next click the Reporting tab:

Here we want to un-tick the “Save Data Report Option”.
Next click on the Fields tab:

![Image of Crystal Reports Fields tab]

All date fields for SelectHR are stored as Date and Time values. If you add a date field into the report it will then show as date/time even although in the SelectHR application it will show as just a date. To save you from always formatting this field in Crystal you can set a default format here.

Click on the “Date and Time…” button:

![Image of Date and Time format editor]

...
Select the Date and Time tab at the top and then select the date format as shown above. Then click the Customize button:

First click on the “Date” tab at the top. Then select the date format as DMY (Day/Month/Year) to change it from the default American format.

This will then mean any date fields in future that are added to the report will be in the correct format. Click OK to close all the forms and return to the Crystal Reports start page.
Starting a New Report

Click on “Blank Report”:

Expand the “Create New Connection” folder as shown above. Then expand the folder “OLE DB (ADO)” and the following box appears:

Scroll down until you find the option (provider) called “Microsoft OLE DB Provider for SQL Server”. Then click Next:
Enter the name of the SQL Server that SelectHR is installed on. Tick the Integrated Security box and choose the SelectHR database. If you are not sure of the server name then please check with your IT support team.

Click Next and then click Finish:

The SelectHR folder is actually the database. The database is broken up into clearly named sub-folders called schemas. These help to guide you to the information you want to report on.

If you expand the SELECTHR folder you will see all the subfolders available. Within each of these you will find folder containing the Tables, Views and Stored procedures. We will look at these in more detail in the next section.
Tables, View & Stored Procedures

Before proceeding it is worth explaining the main differences between Tables, Views and Stored Procedures.

It is intended that all data is named (table, view or stored procedure) is named intuitively to aid selection when using Crystal, the BI designer or any other ODBC compliant application. This includes the category (schema) in which the object exists. For example, everything in the “Employee” category only related to employees. Everything in the “Application”, “Recruitment” and “Vacancies” categories relates to your applicants, recruitment processes and specific vacancies respectively.

Tables

A table is where the data is stored. Everything that you enter into SelectHR will be stored in one or more tables.

Usually, a table will only be added into the Crystal database expert if there is no view returning the data you need. For example, your custom tables and fields will need to be joined in using the tables themselves.

You will always be best off starting your report from a copy of a standard report which bears a resemblance to the report you want to create, or with a blank report, using a key view or stored procedure as the basis of your report, and building from there.

Views

A view is something we have created to help you report on your HR data, and are usually the basis of the content for the standard reports. Views contain data from one or (usually) more tables. Relevant information is pulled from a number of tables to produce a large data set of rows and columns which will be appropriately named.

For example, the view “Current Positions with Organisation as at Evaluation Date” is gathering information not only about the employee but also including their job details and where they sit within your organisation structure.

Stored Procedures

A stored procedure is very similar to a view in that it returns data from one or more tables in a sensible way. The main difference between this and a view is that a stored procedure will usually have one or more input parameters.

The parameter(s) provide information to the stored procedure at execution time which dictates the results returned. This is commonly a single date for point-in-time reporting or a date range (“from date” and “to date”). Parameters are not usually coded values or free text, but they can any data type.

For example, the stored procedure “Current Positions with Organisation As At” in the “Employee” category will prompt for a date value. The records returned will be correct for that point in time.

Please see Appendix 1 for a few of the most commonly used tables, views and stored procedures that you will need to make a comprehensive set of reports for your company.
Building a Simple List Report

Open Crystal Reports 2008 and click on Blank Report. Connect to the SelectHR database as shown above to show the various sub-folders within the SelectHR database.

For the purposes of this report we will expand the Employee folder and find the view “Current Positions with Organisation as at Evaluation Date”. Be careful to find the correct one as there are many similarly named views.

Highlight the view and then click the arrow in the middle to move it to the right-hand side:

Then click OK.

You will now see in the Field Explorer the View we selected:

Expanding this gives us all the fields we have available to add to our report.

Ok, now we want to start adding fields to our report. Make sure you are in Design View:
Now expand the view under database fields in the Field Explorer on the right. You will see the fields we can add to the report.

**Note:** If you are not sure what data is stored in a particular field simply right-click the relevant field name and select “Browse Data”. This will open a window giving you examples of the data contained in this field.

Now add some fields by clicking on one and dragging it into the Details Section of the report:

You will notice that Crystal puts the field’s corresponding label into the Page Header section. This means that on each page these headings will be repeated.

Now preview the report by either clicking on the Preview tab on the top left or hitting the F5 button:
Blank or "Null" values are because the data is not currently held in the database.

Now we have a simple report we can look at the various options available to us to enhance the report further.
Crystal Reports Layout

Design View

In Design View we see the main sections of any report created within Crystal:

- **Report Header**: This will only appear on the first page and is where you will put the report title.
- **Page Header**: This is where the column labels will appear and are repeated at the top of each new page.
- **Details**: Here is where the data is returned in a list format.
- **Report Footer**: This section will appear at the end of the set of data. This section could be used for Totals.
- **Page Footer**: Repeated at the bottom of each page. Most likely used for page numbers.

Field Explorer

The field explorer contains various sections which enable you to build up your report. Let’s look at each section individually:

- **Database Fields**: Expanding this section shows you what tables/views/stored procedures are available for this report. Expanding the view above will give you a list of all the fields available for your report.

- **Formula Fields**: Here we can create formulas to add to your report. Formulas can be anything from concatenating to text fields into one, to mathematical formulas like calculating 10% of someone’s salary. We will be looking at formulas in more detail later.

- **SQL Expressions**: We will not be looking at these in this manual.
**Parameter Fields:** These act like questions when the report is run and are required by Crystal to return the correct information. Examples may include a “From Date” and a “To Date” allowing the report to return data just for a specific period. We will look at this in greater depth later.

**Running Total Fields:** We will not be looking at these in this manual.

**Group Name Fields:** If a report is grouped then the group name fields will be available here to add to the report.

**Special Fields:** These include things like “Print Date” (the day the report was run), “Page Number” (to add to the report footer) etc.
Database Expert

The Database Expert provides an integrated tree view of all data sources you can use with Crystal Reports.

Here we can add Tables/Views/Stored Procedures as required. When more than one data source is added an additional tab appears. Let’s say we wanted to include Equality data in our report. The existing view doesn’t contain this information so we need to get this from another source.

If you expand the Person folder and then the Tables folder you will see a table called “Details”. Add this to the report by highlighting it and then use the right arrow to move it to the right-hand side:

You will now see a new tab at the top called “Links”. Click on this to see the following:
We have to link the 2 tables together so that data returned from the first table matches for the same person in the second table. Crystal tries to help us by joining fields of the same name together as shown above.

This is not always correct so it is recommended that you remove all the links using the “Clear Links” button on the right-hand side. To correctly link the 2 tables together we have to link them using a field that is unique (in the case unique for each employee). In most cases this will be Person Number.

To join the 2 Person Number fields together we click on the left Person Number and hold down the mouse button. Then drag and drop (let the mouse button go) on top of the Person Number in the right table:

Now you can click OK. Your report will now have available fields from both Tables.
Record Sort Expert

We now have a simple list report from earlier. However, you will notice that the employees may not be in any particular order:

<table>
<thead>
<tr>
<th>Format Name</th>
<th>Gender</th>
<th>ETE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christopher Watson</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Harry Wilson</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Jonathan Symons</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>James Foster</td>
<td>Male</td>
<td>0.390</td>
</tr>
<tr>
<td>Samantha Deeming</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>John Carrey</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Carol Palley</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Anthony Richards</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Robert Austin</td>
<td>Male</td>
<td>0.000</td>
</tr>
<tr>
<td>Nicola Jacobs</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Edward Harrison</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Karen Lipton</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Fiona Brown</td>
<td>Female</td>
<td>0.400</td>
</tr>
<tr>
<td>Larry Henderson</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Marie-Théélse Lévéque</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Sarah Gillespie</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Sue Malling</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Robert Wills</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Jim Kie</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Peter Browning</td>
<td>Male</td>
<td>0.400</td>
</tr>
<tr>
<td>Peter Browning</td>
<td>Male</td>
<td>0.600</td>
</tr>
<tr>
<td>Brian Murkin</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Carla Yeoman</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Lea Sagdagarah</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Abigail Lincoln</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Simon Parkinson</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Kellie Probscher</td>
<td>Female</td>
<td>0.533</td>
</tr>
<tr>
<td>Marjory Lamb</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Melinda King</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Fiona Smithson</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Kia Reynolds</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Harold Painter</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Isabella Ritchie</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Gloria Mayford</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Mark Jones</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Michael Browning</td>
<td>Male</td>
<td>1.000</td>
</tr>
</tbody>
</table>

To sort these employees into Alphabetical order we use the Sort Expert. Click on the Sort Expert icon:
Now we can select the field we want to sort the records on.

**Note:** You can sort records on a field that is not currently being used in the report as long as the field is available in the view you are using.

In this report I have used the field Formal Name which is a joining together of First Name and Surname. However, if I sort on this field I would not get the correct order of employees. So, instead of using this I can use the field “Formal Name Reversed” (Surname, First Name):

Highlight this field and use the Right arrow to move the field to the right-hand side. Now we can choose either Ascending or Descending for the order. We will leave this as Ascending. Now click OK:
You can now see that the names are still shown as First Name then Surname but they have been ordered by Surname then First Name.
Select Expert

Use the Select Expert to select the records or groups you want to include in your report (if you do not want them all included). For example, you may have employees from multiple locations but you want to do a report only on ones from a particular location. Select Records enables you to restrict your report so that only those employees are included. When using the Select Expert, the program automatically generates a record or group selection formula based on settings you specify in the dialog box.

Click on the Select Expert icon:

Here you see a list of fields used in the report followed by a more comprehensive list of fields available from the view used in the report. Find the field you want to use in your criteria and click OK. Let's start by restricting the report to only return employees where their Gender is set to Male. Find the Gender field and click on it to highlight it. Then click OK:
Here you will see that the field gender is currently set to any value (thus returning all employees). Click on the dropdown and a list will appear as follows:

For our report we want to select “is equal to”: 
You will see the options available are all those distinct values set against this field. Here we choose “Male” and click OK:

Because the data in the report will now change you will get the following options:

**Used Saved Data**: This will only use the data already displayed in the report and will not go to the database and retrieve the relevant data again. This is there primarily to save time if lots of data is being requested.

**Refresh Data**: This is re-query the database and return the data based on the changes you have made.

If you are not sure which of these to select the always choose the “Refresh Data” option as this will always return the correct data in every circumstance.
As you can see from the subset of data above only employees with their Gender set to "Male" have been returned.

You can have multiple criteria using the Select Expert. For example we may now want to restrict the employee list to only show Males where their FTE is less than 1. To do this will click the Select Expert button again. Then click New. Choose the FTE field and click OK.
We change the “is any value” to “is less than” and then type 1. Now click OK. Once again you get the following message:

Choose “Refresh Data” and the results are all male employees with an FTE of less than 1:

<table>
<thead>
<tr>
<th>Formal Name</th>
<th>Gender</th>
<th>FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peter Browning</td>
<td>Male</td>
<td>0.400</td>
</tr>
<tr>
<td>Daniel Collinson</td>
<td>Male</td>
<td>0.600</td>
</tr>
<tr>
<td>Peter Comfort</td>
<td>Male</td>
<td>0.933</td>
</tr>
<tr>
<td>James Foster</td>
<td>Male</td>
<td>0.3900</td>
</tr>
<tr>
<td>Oliver North</td>
<td>Male</td>
<td>0.533</td>
</tr>
</tbody>
</table>

Now to remove these two criteria we have added simply click the Select Expert icon again. Then click the delete button on the right until both selection criteria are gone. Then click ok and Refresh Data. We are now back to showing all the data.
Group Expert

Grouped data is data that is sorted and broken up into meaningful groups. In an employee list, for example, a group might consist of all those employees belonging to the same department.

Grouping also allows you to do summaries within each group as well as for all the data.

To add a group we click on the Group Expert icon:

![Group Expert](image)

Now we can select the field that we want similarly named values to be grouped by. In this case I am going to use Key Unit Name 1. I highlight this field by clicking on it then use the Right arrow to move this field to the right-hand side:

![Group Expert](image)

You will see the letter “A” now at the end on the field name. This indicates that by default the order of the groups will be ascending. If you wish to change this you can click the Options button below:

![Options button](image)
Options available are ascending order, descending order, specified order or original order. For now we will leave it as ascending order. Click OK and then OK again:
You will now see that each group (department) has a header with that department's name followed by all the employees that fall within that department.

Let's have a look at the design view and how that has changed since we added the new group:

You will see that 2 new sections have been added. We now also have a Group Header #1 and a Group Footer #1.

The Group Header has automatically been filled with the Group #1 Name which is the name of each group. This is called a live header name as it is dynamic and changes when the group (department) changes.
Currently, there is nothing in the Group Footer #1 but this is where we would normally put summaries (totals) for each group.

You can also have multiple groups within the same report. If we wanted to also group by Gender then we need to decide which order we want to have the groups in. This makes a big difference to how the data is displayed.

Let’s add Gender as the second group. Click on the Group Expert icon, find the field Gender and add it to the right-hand side as shown below:

When you click OK you will see the layout of the data has changed:

<table>
<thead>
<tr>
<th>Formal Name</th>
<th>Gender</th>
<th>FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samantha Deeming</td>
<td>Female</td>
<td>1.0000</td>
</tr>
<tr>
<td>Cathy Dear</td>
<td>Female</td>
<td>1.0000</td>
</tr>
<tr>
<td>Michelle Haggart</td>
<td>Female</td>
<td>1.0000</td>
</tr>
<tr>
<td>Jemima Hopper</td>
<td>Female</td>
<td>1.0000</td>
</tr>
<tr>
<td>Michael Browning</td>
<td>Male</td>
<td>1.0000</td>
</tr>
<tr>
<td>Geoffrey Foster</td>
<td>Male</td>
<td>1.0000</td>
</tr>
<tr>
<td>Richard Kingston</td>
<td>Male</td>
<td>1.0000</td>
</tr>
<tr>
<td>Harold Painter</td>
<td>Male</td>
<td>1.0000</td>
</tr>
<tr>
<td>Paul Hogan</td>
<td>0.4000</td>
<td></td>
</tr>
<tr>
<td>Peter Kay</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>Tony Rockall</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>Fiona Brown</td>
<td>Female</td>
<td>0.4000</td>
</tr>
<tr>
<td>Katie Frobisher</td>
<td>Female</td>
<td>0.5333</td>
</tr>
<tr>
<td>Abigail Lincoln</td>
<td>Female</td>
<td>1.0000</td>
</tr>
<tr>
<td>Gloria Mayford</td>
<td>Female</td>
<td>1.0000</td>
</tr>
<tr>
<td>Carol Palley</td>
<td>Female</td>
<td>1.0000</td>
</tr>
<tr>
<td>Lucy Story</td>
<td>Female</td>
<td>1.0000</td>
</tr>
<tr>
<td>Larry Henderson</td>
<td>Male</td>
<td>1.0000</td>
</tr>
<tr>
<td>Oliver North</td>
<td>Male</td>
<td>0.5333</td>
</tr>
<tr>
<td>Fred Tilson</td>
<td>Male</td>
<td>1.0000</td>
</tr>
</tbody>
</table>
The department group above for Consultancy & Clarity has 3 sub-groups now. The first is blank showing all people in the department without a gender value set. The next 2 are the Male and Female genders, and then the report shows the next department.

Let's see what difference swapping the order of the groups around makes. Click the Group Expert icon again:

In your Group By list on the right you will see the 2 fields that you have grouped by in the report. Now click on the Gender field and hold the mouse button down. Now drag this above the Key Unit Name 1 field so it sits at the top of the list. Then click OK:

<table>
<thead>
<tr>
<th>Format Name</th>
<th>Gender</th>
<th>FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cathy Deer</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Michelle Haggart</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Jemima Hopper</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Branding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiona Brown</td>
<td>Female</td>
<td>0.400</td>
</tr>
<tr>
<td>Katie Froebisher</td>
<td>Female</td>
<td>0.5333</td>
</tr>
<tr>
<td>Abigail Lincoln</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Gloria Mayford</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Carol Parke</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Lucy Story</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Central</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Julia Browning</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Sarah Gillespie</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Marie-Thérèse Léveque</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Rachel Reanlands</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Lea Sagagahar</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Carla Yeoman</td>
<td>Female</td>
<td>1.000</td>
</tr>
<tr>
<td>Male Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Michael Browning</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Geoffrey Foster</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Richard Kingston</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Harold Painter</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Branding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Larry Henderson</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Oliver North</td>
<td>Male</td>
<td>0.5333</td>
</tr>
<tr>
<td>Fred Tison</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>Central</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peter Browning</td>
<td>Male</td>
<td>0.400</td>
</tr>
<tr>
<td>Brian Morin</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>William Peters</td>
<td>Male</td>
<td>1.000</td>
</tr>
<tr>
<td>John Smith</td>
<td>Male</td>
<td>1.000</td>
</tr>
</tbody>
</table>

We get Females, department 1, employees, department 2, employees etc. Then Males, department 1, employees, department 2, employees…

When using multiple groups it is sometimes easier to view the data when you indent the fields slightly. I am going to swap the groups around to Key Unit Name 1 first and the Gender.

Now go to design view:
You see we have the 2 group headers and their corresponding group footers. To make the data easier to read try indenting the Group #2 Name by about an inch then indent your fields you have in the Details section by a further inch:

<table>
<thead>
<tr>
<th>Group Header #1</th>
<th>Group Header #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group #1 Name</td>
<td>Group #2 Name</td>
</tr>
</tbody>
</table>

Now preview the report (F5):
<table>
<thead>
<tr>
<th>Female Board</th>
<th>Formal Name</th>
<th>Gender</th>
<th>FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cathy Deer</td>
<td></td>
<td>Female</td>
<td>1.00</td>
</tr>
<tr>
<td>Michelle Haggard</td>
<td></td>
<td>Female</td>
<td>1.00</td>
</tr>
<tr>
<td>Jemima Hopper</td>
<td></td>
<td>Female</td>
<td>1.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Branded</th>
<th>Formal Name</th>
<th>Gender</th>
<th>FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiona Brown</td>
<td></td>
<td>Female</td>
<td>0.40</td>
</tr>
<tr>
<td>Katie Froshler</td>
<td></td>
<td>Female</td>
<td>0.53</td>
</tr>
<tr>
<td>Abigail Lincoln</td>
<td></td>
<td>Female</td>
<td>1.00</td>
</tr>
<tr>
<td>Gloria Mayford</td>
<td></td>
<td>Female</td>
<td>1.00</td>
</tr>
<tr>
<td>Carol Pailey</td>
<td></td>
<td>Female</td>
<td>1.00</td>
</tr>
<tr>
<td>Lucy Story</td>
<td></td>
<td>Female</td>
<td>1.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Central</th>
<th>Formal Name</th>
<th>Gender</th>
<th>FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Julia Browning</td>
<td></td>
<td>Female</td>
<td>1.00</td>
</tr>
<tr>
<td>Sarah Gillespie</td>
<td></td>
<td>Female</td>
<td>1.00</td>
</tr>
<tr>
<td>Marie-Thérèse Lévêque</td>
<td></td>
<td>Female</td>
<td>1.00</td>
</tr>
<tr>
<td>Rachel Rowlands</td>
<td></td>
<td>Female</td>
<td>1.00</td>
</tr>
<tr>
<td>Lea Sagdagarah</td>
<td></td>
<td>Female</td>
<td>1.00</td>
</tr>
<tr>
<td>Carla Yeoman</td>
<td></td>
<td>Female</td>
<td>1.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Male Board</th>
<th>Formal Name</th>
<th>Gender</th>
<th>FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michael Browning</td>
<td></td>
<td>Male</td>
<td>1.00</td>
</tr>
<tr>
<td>Geoffrey Foster</td>
<td></td>
<td>Male</td>
<td>1.00</td>
</tr>
<tr>
<td>Richard Kingston</td>
<td></td>
<td>Male</td>
<td>1.00</td>
</tr>
<tr>
<td>Harold Painter</td>
<td></td>
<td>Male</td>
<td>1.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Branded</th>
<th>Formal Name</th>
<th>Gender</th>
<th>FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larry Henderson</td>
<td></td>
<td>Male</td>
<td>1.00</td>
</tr>
<tr>
<td>Olver North</td>
<td></td>
<td>Male</td>
<td>0.53</td>
</tr>
<tr>
<td>Fred Tilson</td>
<td></td>
<td>Male</td>
<td>1.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Central</th>
<th>Formal Name</th>
<th>Gender</th>
<th>FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peter Browning</td>
<td></td>
<td>Male</td>
<td>0.40</td>
</tr>
<tr>
<td>Brian Murkin</td>
<td></td>
<td>Male</td>
<td>1.00</td>
</tr>
<tr>
<td>William Peters</td>
<td></td>
<td>Male</td>
<td>1.00</td>
</tr>
<tr>
<td>John Smith</td>
<td></td>
<td>Male</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note: Only use groups and indentation if you are not intending to export the data to Excel to manipulate at a later date. Exporting with groups gives additional lines in a spreadsheet for each group header and footer.
Section Expert

You can use the Section Expert to make formatting changes that affect entire sections of your report.

**Sections:** This box lists all of the sections in the active report. When you highlight a section in this list, the program sets the dialog box buttons to indicate the actions you can take and the properties you can set for the selected section.

**Insert:** Use this button to insert a new report section immediately below and of the same type as the section you have selected in the Sections list. For example, if you have a Details section selected and click the Insert button, the program will insert a new Details section immediately below the selected section.

**Delete:** Use this button to delete the section you have selected in the Sections list. You can only delete sections that have been added to the originating sections; you cannot delete any of the originating sections.

**Merge:** Use this button to merge the current section with the companion section that appears immediately below it. For example, if you have three sections, Details A, Details B, and Details C, and you highlight Details B and click the Merge button, the program merges Details B and Details C into a single section.

Note: You cannot merge sections of different types; for example, you cannot merge a Details section with a Group Header section.

**Arrow buttons:** Use these buttons to move a section up or down with respect to other related sections. For example, if you have three sections, Details A, Details B, and Details C, if you highlight Details B and click the up arrow, the program moves the selected section to the top of the three Details sections. Conversely, if you highlight Details B and click the down arrow, the program moves the selected section to the bottom of the three.

Note: You cannot move a section past a section of a different type. For example, you cannot move a Details section past a Group Header section.

**Conditional Formula:** Click this button if you want to set up a conditional formatting formula for the corresponding property.

Common Section Options

You can use the “Common” tab to set properties such as: visible, keep together, formatting with multiple columns, and so on for a desired section.

**Hide (Drill-Down OK):** Select this check box if you do not want the section to print, but you want the section contents to be available for drill-down.

**Suppress (No Drill-Down):** Select this check box if you do not want the section to print, and you do not want the section contents to be available for drill-down.

**Print at Bottom of Page:** When this check box is selected, each group value prints only at the bottom of a page. (Details continue to print in their normal positions.) The command is useful for printing invoices and other reports where you want a single group (for example, line items grouped by order number) to appear on a page and the value for that group (subtotal, summary field, and so on) to print only at the bottom of the page.
Keep Together: When this check box is selected, the program keeps all the lines of the section together, either on the current page (if there is room) or on the next (if not).

In a customer list, for example, data on a single customer (from a single record or linked records) may extend over several lines. If the standard page break falls within the data for a customer, the data will be split, part on one page, and part on the next. But with Keep Together, the program inserts the page break before the record begins so that all the data will be printed together, on the following page.

Note: This option does not work with multi-line string or memo fields. A page break may occur in the middle of a multi-line field.

Suppress Blank Section: When this check box is selected, the program hides the report section if it is blank, and prints it if it is not.

Underlay Following Sections: Select this check box if you want the selected object to underlay the following section(s) when it prints. For an example, see Making an object underlay a following section.

Format with Multiple Columns: When this check box is selected, the Layout tab (Section Expert) will appear.

Note: This option appears only when you've selected Details in the Sections list.

Clamp Page Footer: When this check box is selected, the program removes any extra white space at the bottom of a report. This minimizes unnecessary scrolling for reports viewed online.

Note: This option appears only when you have selected Page Footer in the Sections list.

Reserve Minimum Page Footer: This option enables you to minimize the space reserved for your Page Footer sections, thereby maximizing the space available for valuable report information on each page. This option only affects a Page Footer area with multiple sections.

By default, Crystal Reports reserves space at the bottom of each page for your Page Footer sections. This space is reserved whether or not the Page Footer sections are conditionally suppressed. Normally, the space reserved is equivalent to the combined height of all Page Footer sections that are shown or conditionally suppressed.

You can, however, minimize the space reserved. To do so, first conditionally suppress individual Page Footers as desired. Then select Page Footer in the Sections area of the Section Expert, and select the Reserve Minimum Page Footer option on the Expert's Common tab. When you do this, Crystal Reports will only reserve space on each page for the tallest of your Page Footer sections.

Note: This option appears only when you've selected Page Footer in the Sections list.

Read-only

This option makes a section read-only and locks the formatting and position of all the report objects it contains so they can't be formatted or moved. When you select this option all other choices in the Section Expert become inactive. The formatting options that are usually available on the toolbars or shortcut menus are also suppressed for the section.

Relative Positions: This option allows you to lock the relative position of a report object next to a grid object within a section. For example, if you place a text object one centimetre to the right of a Cross-tab object, during report generation the program will push the text object to the right, so that the one centimetre space is maintained.
regardless of the width of the Cross-tab object.

Note: Only horizontal locking is possible. If you need to preserve relative vertical positioning, you should create a new report section.

Once Relative Positions is selected for a section, you can no longer drag objects to new positions within that section. To change an object’s position, use the Object Size and Position dialog box.

Relative positioning applies only to objects placed to the right of grid objects (that is, objects that can grow horizontally).

Section Paging

You can use the “Paging” tab to set properties such as: page breaks, page numbers, and orientation, and so on for a desired section.

New Page Before: New Page Before is an available format property for Group (header and footer) and Details sections. When you select this option, the program inserts a page break before it prints the section. The page break thus comes before:

- The group (if using the option with a Group footer section).
- Each report record (if using the option with a Details section).

The Page Header and Page Footer appear on each page. If you have a subtotal or summary field in a Group Footer section, you can use the New Page Before option to put these values on pages following the value being totalled.

Reset Page Number After: Resets the page number to one (1) for the following page, after it prints a group total. When this option is used in conjunction with Print at Bottom of Page, the program prints a single group on a page, prints the group value at the bottom of the page, and resets the page number to 1 for the next page. This option is useful whenever you are printing multiple reports from a single file (for example, invoices), and you want each report to be numbered beginning with Page 1.

New Page After: When the End of Section check box is selected, the program inserts a page break after the section.

- The Page Header and Page Footer appear on each page.
- Use New Page After in the Group footer section to print each group on a separate page.

When the Visible Records check box is selected, the program regularly inserts a page break after a specific number of records.

Note:

- This feature applies only to visible records. Suppressed records may be contained on a page, but will not count toward visible records.
- This option appears only when you have selected the Details section in the Sections list.

Orientation: Allows you to set page orientation for each section in the report except for the Page Header and
Page footer. The default setting will be the same as the report page orientation in the Page Setup dialog box.

Note: Once changed from the default setting, section page orientation will not be affected by any further changes to the report page orientation.

**Section Colour**

Use the "Colour" tab to set the background colour for the desired section.

**Background Colour**: To add a background colour to the selected section, select this check box, and then choose a colour from the list.

**Conditional Formula**: Click this button if you want to set up a conditional formatting formula for the corresponding property.
Summaries

Use the Summary command to summarize data and print the summary in your report. The program sorts, groups and summarizes in a single step. You can use summaries:

- To count the number of values in a group.
- To calculate the sum, average, standard deviation, or variance value in a group.
- To identify the minimum or maximum value in a group.

Note: If you don’t have any groups in your report then summaries will show as report totals in the Report Footer.

This dialog box appears when you choose the Summary command from the Insert menu, or when you click Insert Summary on the Insert Tools toolbar.

Use the Insert Summary dialog box to summarize the data in a field in your report.

You can insert summaries, subtotals, and grand totals while using this dialog box:

Choose the field to summarize: This list displays the fields and formulas used in the report along with the fields available in the report's data source tables. Select the field that you want to summarize.

Calculate this summary: This list contains all the summary operations available for use in your report. Select the desired operation.

Note: Not all the summary types available apply to all fields. For example, you cannot sum or average a text, Boolean, date/time, time, or date field.

Summary location: This list contains the locations in your report in which you can place a summary. By default, every report can contain a summary field in the Report Footer (this is a Grand Total). If you want to add a different kind of summary, such as a subtotal, add a group using the Insert Group button.
Add to all group levels: Select this check box to add the summary you define to all group levels in your report.

Insert Group: Use this button to add a group to your report. The Insert Group dialog box appears. After you save your group, it appears in the Summary location list and can be selected.

Show as a percentage of: Select this check box if you want to calculate the percentage total of one group within a broader grouping. For example, you can show the percentage of sales in each city based on the total sales for each country.

After you select the check box, you can choose the total or group you want the comparison to be based on.

Note: The percentage option is available only when the result of a summary operation is numeric.

For our report let’s choose the FTE field to summarise, choose Sum as the calculation, and add it to all group levels. Now click OK:

You now see that each group section has its own total FTE value in the group header. This can be a bit confusing to understand all the total values and what they are actually totals of! We can make this easier by adding the group name into the group footer section. Go to design view:
You can see that in the Field Explorer I have expanded the folder “Group Name Fields”. Here we have the group names for both Key Unit Name 1 and Gender. We can drag this Group Name 1 into its corresponding Group footer and do the same with the Group Name 2 also:

We have added these closer to the summaries so it will be even easier to read. Now click the Preview tab or hit F5 again:
You can now see what each group summary relates to.
Parameters

Parameters allow you to change the data based on the user defining certain criteria each time the report is run. This saves you having to edit the report before running to return different sets of data.

Parameter fields or prompts are presented every time the report is refreshed. The value entered is then passed on to the Select Expert, report formats, or conditional formatting formulas to customise the way the report appears.

There are 3 stages to using a parameter field in Crystal.

1. Create the parameter field.
2. Use the parameter field in record selection (Select Expert).
3. Place the parameter field on the report, perhaps embedded in a text object, to indicate what is included in the report.

In the Field Explorer you will see a parameters section as shown below:

Right click here and choose “New…”:
**Name:** The name you want the parameter to have.

**Type:** Type is what field type it is going to be. This can be any one of the following although a number you will not need for the SelectHR database:

- Boolean – yes/no, true/false
- Currency – not required
- Date
- Date time
- Number
- String – any text
- Time – not required

**List of Values:** This is not allowed using this version of Crystal Reports. Always have this set to Static.

**Field Value:** If the parameter value is to come from a list of data from a field in the database then set the field name here.

**Description Field:** *We will not be looking at this in this manual.*

**Actions:** If you have selected a field in the database you can create a list of these fields (e.g. Key Unit Name 1) for the user to select from.

Click on Actions and then “Append all database values”. The system will then search all the values for that field and add them to a list in the Value column below.

**Value Options:**

- **Show on (Viewer) Panel** – Always leave as editable
Prompt text – This will be what appears to the user when the report is run. You might want to add something like “Please select the Department Names you want to run the report for”.

Prompt with Description Only – Always leave as False

Optional Prompt - Set this to true if you want to allow the user to bypass entering a value for this parameter.

Default Value – Add a value to this field if you want a default to appear when the program prompts your users to select a value.

Allow custom values – If you set this option to True, your users can choose values that you entered or values of their own choice. Otherwise, your users can choose only values that you entered in the List of Values area.

Allow multiple values – Use the “Allow multiple values” field to select more than one default value for your parameter field when you click the Refresh button on the Navigation Tools toolbar. When this field is set to True, the prompt allows multiple values. When set to True, you can set both “Allow discrete values” and “Allow range values” to True. Otherwise, only one of these two fields can be set to True at any given time. The field defaults to False.

Allow discrete values – Use the “Allow discrete values” field to select only discrete, or singular, values for your parameter field. If you have “Allow multiple values” selected, you will be able to select more than one discrete value for your parameter field, though those discrete values will continue to function singularly as opposed to a range value. When this field is set to True, the prompt allows only discrete values. The field defaults to True.

Allow range values – Use the “Allow range values” field to select a range of values for your parameter field. For example, if you’ve selected a number field, your parameter field (with range value selected) could equal any number that falls between £10,000 and £100,000. When this field is set to True, the prompt allows range values. The field defaults to False.

Min length – Use the “Min length” field to limit the minimum number of characters that can appear in your parameter field. For example, if you choose the number 4 as your minimum length limit, the name of customer Dan could not be used because it is fewer than 4 characters long.

Max length – Use the “Max length” field to limit the maximum number of characters that can appear in your parameter field. For example, if you choose the number 5 as your maximum length limit, the name of customer Margaret could not be used because it is more than 5 characters long.

Edit mask – Use the “Edit mask” field to create an Edit Mask for your parameter. The Edit Mask can be any of a set of masking characters used to restrict the values you can enter as parameter values (the edit mask also limits the values your users can enter as prompting values). When you enter an Edit Mask, the length options become inactive.
Example 1

For our first example set the options/fields as shown below (using your own data you will obviously have a different list of values than shown here):

Once you have selected the options as above click ok. You will notice this does not affect the report. This is because we have not added the parameter to the Select Expert yet.

Open the Select Expert and click New. Find Key Unit Name 1 (or whatever key unit name holds your Department level). Now click OK:

Currently this is set to “is any value” as shown. Change this option to “is equal to”. Click on the new dropdown list that appears. At the top you should have {?Department}. Select this and click OK:
Now the report, each time refreshed, will ask for a department name. If you click on the dropdown list you will see all the department values available to you to select.

Select one of the values and click OK. You will see the report only returns employees who belong to that department.

If we hit the F5 button we get a new prompt:

If we choose the option to Prompt for new parameter values we get this screen back:

You will notice there is a field for the user to enter a value manually. In this case it is probably better to remove this as if a department name is misspelled then no data will be returned.

In the Field Explorer find Parameters and right click the Department parameter and choose the option to Edit. Change the 2 options as follows:

<table>
<thead>
<tr>
<th>Allow custom values</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow multiple values</td>
<td>True</td>
</tr>
</tbody>
</table>

When you click OK the parameter dialogue box appears:
Here we now have the option to select multiple Department names. Add the required departments by double clicking on its name. To add all use the double arrow pointing right.

One important thing to remember when using parameters is to always include them in the title of the report. This way the recipient of the report knows what data is in it. To do this we need to add a text box into the report header.

First switch to design view. Then click on the Insert Text Box icon. Your mouse pointer will now turn into a cross +. Click into the report header where you want the box to start, keeping the mouse held down, and drag the box to where you want it to finish. You now have a text box you can use to type your own report title in:

```
Employee List by Department and Gender
```

However, this doesn't tell us what departments are used in running the report. With multiple text values (multiple departments) this is quite tricky.

The first thing you need to do is to create a new formula. In the Field Explorer find Formula Fields, right click it and select New:

Enter a name like “Department Parameters” and click OK. This opens the Formula Editor screen:
In the blank section below the field names used in your report type the following code:

```
Join ([?Department] , ', ')
```

What this code does is take all the parameter values (departments) the user selected when running the report and joins them together while separating them with a comma.

Use the ![icon](image) icon to check your code for errors and you should get the following message:

![Crystal Reports](image)

Click OK and then “Save and Close” in the top left corner. Now under formula fields you have “Department Parameters” available to the report. Now drag this field into the text box we created earlier. You should end up with something like this:

```
Employee List by Department and Gender - {[@Department Parameters]}
```

Now preview the report. You will see that the report title shows all the departments selected when first running it:

```
Employee List by Department and Gender - Board, Branding, Central
```

Try hitting F5 and choosing a different set of values. You will see the report title is dynamic and changes whenever the parameter values change.
Example 2

Another very common use of parameters is for Report Start Date and Report End Date.

Let’s start a new report using the view “Employee Current Positions with Organisation as at Evaluation Date”. Add the Fields Formal Name and Start Date into the report.

Now let’s say that you only want to see employees who started between two dates. The first thing you need to do is to create two parameters, one called Report Start Date and another called Report End Date.

Find the Parameter Fields in the Field Explorer right click and choose New. Change the Name to Report Start Date and the Type to Date. Then click OK:

Now create a new parameter but this time we will call it Report End Date.

Now click on the Select Expert icon. From the list of fields find Start Date and click OK. Now we want to change the dropdown “is any value” to “is between”. You will now see 2 additional dropdown where you can select the date which you want the Start Date to be between.

Note: You will remember when we created the Department parameter before this parameter was available when we opened the second dropdown. Here it is not available. This is because the database field “Start Date” is actually stored as a Date/Time value (even when you never use the time part). Our two parameters we created as Date value. As these are different they do not appear in the dropdown lists.

To get around this we need to click on the Formula Editor button just below. This opens the Formula Editor screen. You will see that some code has already been entered to help you:

\{Current_Positions_with_Organisation_As_At_Evaluation_Date.Start Date\} in DateTime (0, 0, 0, 0, 0, 0) to DateTime (0, 0, 0, 0, 0, 0)

The DateTime values are incorrect as they both show zeros. We can replace these with our two newly created
parameters. First delete everything after the word “in”. Place the cursor at the end of the line and then double click the “Report Start Date” parameter in the report fields list above. Then type in the word “to” and then double click the Report End Date parameter, also from above. You should end up with the following code:

\{Current\_Positions\_with\_Organisation\_As\_At\_Evaluation\_Date.Start\_Date\} in \{?Report\_Start\_Date\} to \{?Report\_End\_Date\}

What this is actually saying is only return records where the employee’s start date is in the period (whatever the start date is you select) to (whatever the end date is you select).

Now click “Save & Close” and click ok on the Select Expert. You should now be prompted with the following:

![Calendar for date selection](image)

Use the calendar buttons to add your dates and click OK. You will now see the list of employees who started between those particular dates.

Last thing we need to do is to create a text box for a report title in the report header and include the two parameter values we have created. This ensures we know what dates we used every time we run the report.

Click the “Insert Text Box” icon as before. Drag a box the size you want into the Report Header. Now type in the following text:

“Starters Between ”

Then drag the “Report Start Date” parameter from the Field Explorer into the box adding it to the end of your text. After this field is added type in the following:

“ and “

Then drag your Report End Date Parameter to the end of this text. You should the have something looking like this:

Starters Between {?Report Start Date} and {?Report End Date}

Now preview the report:

```
Starters between 01/01/2010 and 30/06/2010
```
Formatting

Any box or section on a Crystal report can be formatted, either by accessing the right click menu and clicking the relevant “Format…” option.

Use the Common tab to set properties like suppress, horizontal alignment, and keep object together, for a desired field. To access these simply right click on the field in question and select Format Field.

Here are the options available to you on each tab some features are dependent on the field type.

Common Tab

Object Name: Use this field to define a name for the object you are formatting. This name is used when dragging and dropping items to the repository, when viewing objects in the Report Explorer dialog box, and when defining Report Part hyperlinks.

A default name is created for each field in a report. If the default name suits you, you can ignore this field.

Tool Tip Text: You can add Tool Tip text for the selected field by clicking the Format Formula Workshop button and entering text within quotation marks. Tool Tip text appears when you leave your mouse pointer over a field for a few seconds.

Note: Tool Tips must be selected in the Preview in order for Tool Tips to appear on the Preview tab.

Read-only: Use this option to make the selected report object read-only so it can't be formatted. When you select this option, all other choices in the Format Editor except "Repeat on Horizontal Pages" and "Lock Position and Size" become inactive. The formatting options that are usually available on the toolbars or shortcut menus are also suppressed for the object.

Note: This feature is for your convenience in protecting report formatting; it is not intended to be used as report security.
Lock Position and Size: Use this option to lock the position of the selected report object so it can't be moved. When you select this option, you cannot drag the object in the Report Designer and the Size and Position command becomes inactive.

Suppress: Select this check box if you want to suppress the selected field. The field values won't appear on the Preview tab, nor will they print.

Suppress if Duplicated: Select this check box if you don't want the program to show field values that are duplicated when it displays or prints the report.

This option compares record values, not formatted field values. The program ignores the option in the first Detail section of a formatted page.

Suppress Embedded Field Blank Lines: Select this check box if you want the program to avoid printing blank fields—that is, fields for which the database returns no information. This option prevents blank lines from appearing in your report when some fields are empty.

Can Grow: This check box is useful for objects that contain variable length strings such as memo fields.

- Select this check box if you want the program to expand the object frame vertically when the text within the object is larger than the frame.
- Clear this check box to truncate the data when the value is larger than the frame.

By default, the Can Grow option is off.

Max number of lines: If you have selected the Can Grow check box, you can use this box to specify the maximum number of lines by which the program can expand an object frame. Simply enter the desired number of lines into this box or enter a 0 (zero) if you do not want to set a limit.

Text Rotation: This list contains the rotation options available for the selected field. Use the Text Rotation options to vertically align the fields and text-based objects on your report.

Horizontal Alignment: This list contains the horizontal alignment types available for the field (for example, left, centre, and right).

Display String: Click the conditional formatting button to enter a formula that lets you display number, currency, date, time, date and time, Boolean, or even string fields as a custom string. This type of conditional formatting is not limited to database fields; you can use it for running totals, formulas, parameter fields, summaries, and so on.

For example, suppose you want to use a notation in your report that represents millions as M and thousands as K. You can create a display string formula for your report by selecting the appropriate numeric field and entering this formula in the Format Formula Editor:

```plaintext
if CurrentFieldValue >= 1000000
    then ToText(CurrentFieldValue/1000000, 2) + "M"
else if CurrentFieldValue >= 1000
    then ToText(CurrentFieldValue/1000, 2) + "K"
else ToText(CurrentFieldValue, 2)
```
CSS Class Name: We will not be using this.

Repeat on Horizontal Pages: Use this option to repeat a report object that does not expand horizontally, such as text objects, field objects, OLE objects, charts, maps, lines, boxes, and so on, on each additional horizontal page that a Cross-tab or OLAP grid might create.

Keep Object Together: Select this check box to keep an object on a single page. If there is enough room, the program prints the object on the current page. If there is not enough room, the program prints the object on the next page.

Note: If you have objects that are larger than a page, this property will not work. Such objects are always split across pages.

Close Border on Page Break: If an object has a border and the object is split over two pages, you have two options: put a border around each part of the split object, or display each part of the object with a partial border. Select this check box to display a full border.

Border Tab

![Border Tab](image)

Use the Border tab to format the borders, background fill, and drop shadows for selected fields on your report. Using the options on the border tab, you can create a variety of effects that can enhance both the look of your report and highlight important data.

Left: This list contains the different line styles available. Your choices include single, double, dashed, and dotted line borders. Select the desired style and the program will insert the specified border on the left side of the field. The default value is None.

Right: This list contains the different line styles available. Your choices include single, double, dashed, and dotted line borders. Select the desired style and the program will insert the specified border on the right side of the field. The default value is None.
**Top:** This list contains the different line styles available. Your choices include single, double, dashed, and dotted line borders. Select the desired style and the program will insert the specified border on the top of the field. The default value is set to None.

**Bottom:** This list contains the different line styles available. Your choices include single, double, dashed, and dotted line borders. Select the desired style and the program will put the specified border on the bottom of the field. The default value is None.

**Tight Horizontal:** Select this check box to trim the border to the size of the field.

- When this check box is not selected, the border will be the same size for each record.
- When this check box is selected, the border will be trimmed to match the size of each individual record.

**Drop Shadow:** Select this check box if you want to print a drop shadow below and to the right of the field.

**Border:** This list contains the colours available for use as borders.

**Background:** Select this check box if you want to change the background colour. When you select this check box, a list appears to the right, allowing you to select a new background colour.

**Number Tab**

Use the Number tab to set the formatting options for number or currency fields in your report.

**Style:** From this predefined list, choose a number/currency style to apply to the field selected on your report. When you choose System Default Currency Format, the program uses the number and currency formats from the Regional Settings Properties dialog box in the Windows Control Panel.

Note: You can create a custom number/currency format by clicking the Customize button. Your customized style appears in the style list as Custom Style.

**Display currency symbol:**
Select the Display currency symbol check box if you want to display currency symbols in your currency fields.

**Fixed**: Click this option if you want the program to place the currency symbol in the first (far left) position in the field. The program will leave extra space between the symbol and the currency if the field is justified to the right.

For example:

£ 325.00
£ 401,325.00

**Floating**: Click this option if you want the program to place the currency symbol as close to the currency amount as possible so that there are never any extra spaces between the symbol and the amount. For example:

£401,325.00
£325.00

**Customize**: Use this button to see more detailed formatting options

**Prefix**: Use this field to insert text in front of values displayed by a Horizontal Page Number field.

**Suffix**: Use this field to append text to values displayed by a Horizontal Page Number field.

**Suppress if No Horizontal Pages**: Select this check box to suppress a Horizontal Page Number field when the report is only one page wide.

Note: The Prefix, Suffix, and Suppress if No Horizontal Pages options appear only when you format the Special Field called Horizontal Page Number.

**Date & Time Tab**
You can use the Date and Time tab to set the formatting options for the date and time fields in your report.

**Style:** From this predefined list, choose a date/time style to apply to the field selected on your report. When you choose System Default Long Format or System Default Short Format, the program uses the time and date formats from the Regional Settings Properties dialog box in the Windows Control Panel.

Note: You can create a custom date/time format by clicking the Customize button. Your customized style appears in the style list as Custom Style.

**Font Tab**

![Font Tab](image)

You can use the Font tab to change the fonts, the font size, and the font style for text and data fields on your reports.

**Font:** This list contains all the fonts that you have installed for your system. The list appears with the font that is currently in use selected.

**Style:** This list contains additional attributes that you can assign to the selected font. The list appears with the style that is currently in use selected.

**Size:** This list includes common point sizes for the selected font. The list appears with the point size that is currently in use selected.

If you enter your own font size, the number you type must be between 1 and 1638. Crystal Reports will automatically round all fractional entries to the nearest 0.5. Consequently, in your report, you can use the fractional font sizes 1.5, 2.5, 3.5, and so on, up to 1637.5.

**Colour:** This palette shows all the available colours for your box. Select the desired colour from the palette or click “More” to see the Colour dialog box.
Strikeout: When you select this check box, the program prints the strikeout character across the font.

Underline: When you select this check box, the program underlines characters typed in the selected font.

Character spacing exactly: Use this option to specify the value that each character in your selected font occupies. The value is defined as the distance in number of points measured from the start of one character to the start of the next. When you change the character spacing, you change only the spacing between adjacent characters, not the font size of the characters.

For example, if you specify a 14-point font with a character spacing of 14 points, each character will remain as a 14-point font size, occupying a space that is 14 points wide.

Note: If you set the character spacing to zero, no spacing is applied—the program follows the character spacing of the font.
Highlighting Expert

The Highlighting Expert enables you to apply conditional formatting to all types of report fields (Number, Currency, String, Boolean, Date, Time, and DateTime fields). With the expert, you format the selected field either by specifying a condition based on that field’s value, or by specifying a condition based on the value of a different report field. In other words, the expert enables you create the following formula: If the value of field X meets condition A, then apply the specified formatting to the field selected on the report.

Select the field you want to apply conditional formatting to and right-click on it. From the menu that appears select the Highlighting Expert.

This box is divided into two areas: the Item list area displays the formula; the Item editor area allows you to specify the formula. The Item editor area includes a Sample field that displays the formatting specifications being applied.

**Item list:** The Item list displays the highlighting formulas created for the currently selected field.

**Priority:** Use the Priority buttons in the Item List of the Highlighting Expert to set the priorities for your formulas.

**New:** Click this button to create a new formula with default settings.

**Remove:** Use the Remove button to discard unwanted highlighting formulas for the currently selected field.

**Value of:** Use this list to select the field upon which the condition is based. That is, choose a field for X in the following phrase: “If the value of field X meets condition A, then format the selected field.”

**Comparison list:** From this second list, select the comparison for your conditional formula. This comparative phrase works as the operator in your conditional formula.

**Field values:** Use this text box to enter the value to which you want to apply highlighting conditions. For example, to apply a red background colour when the value contained in a field is equal to $25,000, type 25,000 into the Field values text box.

Note: If the field selected in the Value of list is nonnumeric, then you can select from a list of available values.
Font style: Use this list to select a font style for the field value to which you want to apply a highlighting condition.

Font colour: Use this list to select a font colour for the field value to which you want to apply a highlighting condition.

Background: Use this list to select a background colour for the field value to which you want to apply a highlighting condition.

Border: Use this list to select a border style for the field value to which you want to apply a highlighting condition.

Sample: Shows a sample using the settings selected in the Expert.
Cross-tabs

Crosstabs are a very useful function of Crystal Reports. They allow you to quickly show summaries of various data in a simple Excel Spreadsheet format. These can be used for headcount reports on diversity.

Open Crystal Reports 2008. Under the "Start a New Report" section you will see the option of "Cross-tab report wizard". Select this option and the wizard starts:

Find the relevant table, view or stored procedure that has the fields you require. For this example we will use {Current Positions With Organisation As At} stored procedure:
We are now going to add {Key Unit Name 2} as the Row, {Gender} as the Column and {Person Number} as the Summary field. Because we want to count the number of people within each Key Unit Name 2 by Gender we need to then change the summary type from Sum to Count.

Now click Next.
We will not be looking at charts here so click Next again:

Record Selection allows us to filter out certain employees based on specific criteria. As I know the stored procedure returns all current employees on the AS AT DATE I can leave this area blank. Click Next:
Grid Styles can be changed accordingly. Leaving as Original returns a basic table as shown below. Click Finish:

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>88</td>
<td>8</td>
<td>32</td>
</tr>
<tr>
<td>Commercial</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Hardware Division</td>
<td>9</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Operations</td>
<td>65</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>Software Division</td>
<td>12</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

You will notice that there is a blank Key Unit Name 2 and a blank Gender. This is because there are employees not assigned to a Key Unit Name 2 and some that have not been allocated a gender.

Rather annoyingly Crystal puts the totals both top and left. Personally I prefer them bottom and right. To change this we need to go into the Cross-tab expert. The only way to do this on the existing form is to Right-Click the area in the top left corner of the existing Cross-tab. Then select Cross-tab Expert.
In the Customize Style tab you will see ticks against both "Column Totals on Top" and "Row Totals on Left". Un-tick both of these and click OK:

Ok, so now we have our first simple Cross-tab report. Remember, we did a count of Person Number because every employee has their own person number. However, there would be nothing stopping us doing a sum of FTE to give a more accurate headcount.

Let’s make this Cross-tab a little bit more advanced. Let’s say we wanted to know the number of Females who are Part Time and Full Time, and similarly with the Males.

Go back into the Cross-tab expert as shown before by right-clicking on the top left and selecting Cross-tab expert. Now add the field (FTE) into the Columns box. Now click OK:

As you can see you get a sub-heading for every different FTE value for males and females. All we want are just
Part Time and Full Time.

Go back into the Cross-tab expert again. This time highlight the field (FTE), we added earlier, in the Columns box. Now click on the “Group Options” box immediately below this:

![Cross-tab Group Options window](image)

Change the “in ascending order” to “in specified order”. The following screen appears:

![Cross-tab Group Options window](image)

In the Named Group box type “Full Time” and hit the Enter key. Now while this is highlighted choose Edit on the right hand side:
The definition of Full Time is where FTE is equal to 1 so this is what we need to state here:

Now Click OK and we are back to the previous screen:

In the Named Group box type in “Part Time” and hit Enter again. Then click the Edit button once again:

Here we want to say the definition for Part Time is anyone with and FTE of less than 1:
Click OK and OK again and then OK to close the Cross-tab expert:

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th></th>
<th>Male</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full Time</td>
<td>Part Time</td>
<td>Total</td>
<td>Full Time</td>
<td>Part Time</td>
</tr>
<tr>
<td>Commercial</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Hardware Division</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Operations</td>
<td>7</td>
<td>1</td>
<td>8</td>
<td>23</td>
<td>2</td>
</tr>
<tr>
<td>Software Division</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>1</td>
<td>8</td>
<td>33</td>
<td>2</td>
</tr>
</tbody>
</table>
Formulas

Formulas can be useful within many reports. They can do calculations or manipulate date to show how you want it.

To create a new formula go to the Field Explorer on the right side of the screen in Crystal Reports. Right Click on Formula Fields and select New. Give your formula a descriptive name. Clicking OK takes you to the Formula Editor screen. Now you can create your formula.

Once the formula has been create click Close & Save in the top left. You will now see that formula in the Field Explorer. This can now be dropped into the report the same as any other field.

Below are a list of common formulas I use and what they do:

**DateAdd**

DateAdd allows you to add a specific time period to a date field within SelectHR. For example you may want to know when a person is reaching 65 years of age and ready for retirement. The formula would be something like this assuming you were using the view {Employee}.{Current Positions With Organisation As At Evaluation Date} joined to {Person}.{Details} to give {Birth Date}:

\[
\text{DateAdd}("yyyy", 65, \{\text{Details.Birth Date}\})
\]

**Note:** You will notice that if an employee has no date entered into SelectHR the formula field for this person will remain blank.

Ok, now let’s expand a little on this formula. Let’s say retirement age for men is 65 and women are 60. We can’t use the formula we created above because this will show the retirement date as 65 years of age for everyone.

To get round this we have to do a different calculation depending on their gender. For this we use a If...then...else statement:

\[
\begin{align*}
\text{If} & \quad \{\text{Current\_Positions\_with\_Organisation\_As\_At\_Evaluation\_Date.Gender}\} = \text{"Male"} \\
\text{Then} & \quad \text{DateAdd}("yyyy", 65, \{\text{Details.Birth Date}\}) \\
\text{Else} & \quad \text{DateAdd}("yyyy", 60, \{\text{Details.Birth Date}\})
\end{align*}
\]

Now there is still a problem with this formula. For all employees of Gender = Male it is calculating correctly. Likewise, if they have a gender as Female it is also calculating correctly. However, if there was a situation where there was a {Birth date} but no {Gender} entered for an employee then your formula would know they are not Male and move to the Else part of the statement and add 60 years. We have no idea if this is correct or not as we don’t know if they are a man or woman.

To get round this we need to be more specific in our formula:

\[
\begin{align*}
\text{If Not IsNull}(\{\text{Current\_Positions\_with\_Organisation\_As\_At\_Evaluation\_Date.Gender}\}) & \quad \text{Then} \\
\text{If} & \quad \{\text{Current\_Positions\_with\_Organisation\_As\_At\_Evaluation\_Date.Gender}\} = \text{"Male"} \\
\text{Then} & \quad \text{DateAdd}("yyyy", 65, \{\text{Details.Birth Date}\})
\end{align*}
\]
Else
    DateAdd("yyyy", 60, {Details.Birth Date})

What this is doing is checking the Gender has a value first. If it does then it proceeds with the statement. If not, then it leaves the formula blank.

**Syntax**

DateAdd requires a time interval to add, a number of those time intervals to add, and what field to add them to.

Different time intervals are:

- "yyyy" – Years
- "q" – Quarters (3 month periods)
- "m" - Months
- "d" – Days
- "ww" – Weeks

**Note:** You can use a minus figure to subtract a period of time from a field.

**DatePart**

DatePart allows you to show just a part of the date rather than the full date format. For example if we want to know all the people with birthday’s in each month we can do:

DatePart("M", {Details.Birth Date})

**Syntax**

DatePart requires a specific part of the date and the date field. Specific date parts can be:

- "yyyy" – Year
- "m" – Month
- "d" – Day

**DateDiff**

DateDiff allows you to calculate the time period between two dates. For example you may want to know the number of year’s length of service an employee has:

DateDiff("yyyy", {Current_Positions_with_Organisation_As_At_Evaluation_Date.Start Date}, CurrentDate)

What this is doing is simply subtracting the year part of their start date from the year part of today’s date (CurrentDate is used to show today’s date). Of course, this might not be correct because if they started earlier in the year than today then the year length of service will be out by one.

To correct this we need to first work out if they have reached their anniversary this year. If they have then we can assume that the calculation above is working correctly. However, if they have not then we need to subtract 1 year from this calculation result.
The easiest way to do this is to convert their start date into the same date in this year. Once we have this we can then check to see if they have passed this year's anniversary.

Create a new formula calling it "Anniversary Date". The formula code will be:

```
Date(
    DatePart("yyyy", CurrentDate),
    DatePart("m", {Current_Positions_with_Organisation_As_At_Evaluation_Date.Start Date}),
    DatePart("d", {Current_Positions_with_Organisation_As_At_Evaluation_Date.Start Date})
)
```

Here we are building a date using the current year and the employee's start month and day.

Now we can create a formula to calculate an accurate length of service in years as follows:

```
If @Anniversary < CurrentDate Then
    DateDiff("yyyy", {Current_Positions_with_Organisation_As_At_Evaluation_Date.Start Date}, CurrentDate)
Else
    DateDiff("yyyy", {Current_Positions_with_Organisation_As_At_Evaluation_Date.Start Date}, CurrentDate) – 1
```

As you can see we are first checking if their anniversary of them starting has been reached this year. If it has then we are just subtracting the year they started with the current year. If it is not then they have not completed that last year so we need to take 1 from the result.

**Syntax**

DateDiff requires three values. The period you want to calculate, the first date and the second date. The periods are the same as with the function DateAdd.

**Arithmetical Calculations**

Simpler things you can do are basic arithmetical formulas. For example, you may want to show {FTE} as a percentage in the report as opposed to a fraction of 1:

```
{Current_Positions_with_Organisation_As_At_Evaluation_Date.FTE} * 100
```

Alternatively, you might want to see what everyone's salary would be with a 4% increase:

```
{Current_Pay_with_Organisation_As_At_Evaluation_Date.Pay Amount} * 1.04
```
Appendix 1: Useful Tables, Views and Stored Procedures

Here are a list of useful tables, views and stored procedures and what they return. While this is by no means a comprehensive list they are all good starting points for the majority of reports that you will require.

Tables

Tables are intuitively named and categorised by schema according to the module they are in. It is recommended you start with a suitable view or stored procedure (see below) and add in tables required to provide the additional information you require.

It is intended that all views and stored procedures contain the primary key (i.e. record identifier) for every table in the view. This may not be true for some lookups where the base table stores the text in the lookup and not the key, but it can be joined in the same way on the text value.

Views

NOTE: All “…Extra Details” views are useful extensions to base tables with the same prefixed name. These contain natural additional information (usually up the data hierarchy) to enable additional on screen information, but can equally be used in reporting.

**Absence.Days with Organisation** – Returns a day for every absence an employee has ever had. Useful to start all absence reporting as it includes one record for each day. Using this field {Absence Date} you can use between date parameters to accurately return the correct number of days absent in the period. Total days will then be a count of {Days} or {Hours} depending on how you are recording your absences. Remember to filter on the {Absence Type} to only show the absences you want.

**Absence.Days with Organisation and Cost** – As above but including approximate absence cost.

**Absence.History with Organisation** – As above excluding the days detail and just the absence header information.

**Absence.Individual Report** – Provides and absence summary for all current employees, including holiday year and statistics.

**Absence.Sickness For Rolling 12 Months** – Returns employee and organisation details together with occurrences, total duration and Bradford Factor.

**Application.Monitoring** – Returns equality information for applicants.

**Appraisal.Last Appraisal Rating** – Returns people and their latest appraisal rating.

**Course.Events with Bookings** – Returns all events and the delegates booked on, including latest status.

**Employee.Basic Pay Export** – Can be exported to Excel and imported in via the SelectHR administrator. Useful for bulk update following annual review, for example.

**Employee.Career History with Organisation** – Returns full list of career records and the associated
organisation details. Useful when needing non-current information.

**Employee.Current and Leaver Pay with Organisation As At Evaluation Date** – Returns all employee pay details for current employees and leavers as at the day the report is run. Remember, this may return more than one record per person if they have multiple pay elements (or multiple concurrent appointments). To remove the multiple pay elements you will need to filter on (Pay Element Type) = ‘Basic Pay’.

**Employee.Current and Leaver Positions with Organisation As At Evaluation Date** – As above excluding pay details. Remember that you might get multiple records for an employee still if they have 2 concurrent appointments.

**Employee.Current and Starter and Leaver Pay with Organisation As At Evaluation Date** – Returns all employees including future dated starters and leavers…so in effect everyone who has been or will be employed that has been entered into SelectHR. Includes pay details as described above.

**Employee.Current and Starter and Leaver Positions with Organisation As At Evaluation Date** – As view above excluding pay details.

**Employee.Current and Starter Pay with Organisation As At Evaluation Date** – Returns current employees and future dated starters with pay details as at the day the report is run.

**Employee.Current and Starter Positions with Organisation As At Evaluation Date** – Returns current employees and future dated starters as at day report is run.

**Employee.Current Pay with Organisation As At Evaluation Date** – Returns only current staff as at the day the report is run, including pay details.

**Employee.Current Positions with Organisation As At Evaluation Date** – Returns only current staff as at the day the report is run.

**Employee.Essentials** – Returns employee details and performs some useful calculations such as LOS and current day info (e.g. “Absent”, “Hours Description”).

**Employee.Monitoring with Organisation As At Evaluation Date** – Returns only current staff as at the report is run, including their equality details.

**Employee.Pay Previous** – Returns bridging data to link current pay and previous pay of the same type in the same report.

**Organisation.Posts and Organisation** – Returns all post and organisational data. This is embedded automatically in all the “…with Organisation…” views.

**Person.Current Address** – Returns people’s current “Home” address.

**Person.Snapshot** – Returns current employees and same data as “Employee.Current Positions with Organisation As At Evaluation Date”. This view is much lighter weight as it is based on a single table (ZZSystemEmployee.Snapshot) and is recommended in place of heavier views where possible.

**Recruitment.Costs with Level** – Returns a full summary of all recruitment costs.
Training.Completed with CPD and Organisation – Returns a record for each training course an employee has attended. This will include leavers. To show details between specific dates you can filter on the field (Course Start Date).

Training.Costs with Level – Returns a full summary of all training costs.

Training.History with Organisation – Returns all training and employee information.

Training.Required with Organisation – Returns training need and employee information.

Vacancy.Applicants with Latest Status – Returns vacancy and applicant information with latest status details.

Vacancy.Details with Organisation – Returns all vacancy information including applicant statistics.

Stored Procedures

NOTE: When using a stored procedure to generate a point-in-time report, you should ONLY use one “…As At” stored procedure. If you need additional information, link in one of the “…As At Evaluation Date” views which will return data for the date you request. Alternatively, link in base tables by key number.

Absence.Sickness Between Dates – Very useful for calculating sickness percentages as this returns the number of working days as well as a record for each sickness in the period, including the number of days sick. This will include leavers if they had sickness between the dates that you enter.

The following stored procedures work the same way as the views shown above except rather than using today’s date you can choose any date. The procedure will then return details for that person as at that date:

Employee.Current and Leaver Pay with Organisation As At – Returns all current employees and staff that have left up to the AS AT DATE you use. Will show the salary they were getting at this date also.

Employee.Current and Leaver Positions with Organisation As At – As above but without salary information.

Employee.Current and Starter and Leaver Pay with Organisation As At – Returns all employees in the system. For leavers it returns their last pay details.

Employee.Current and Starter and Leaver Positions with Organisation As At – As above but without salary information.

Employee.Current and Starter Pay with Organisation As At – Returns all employees current on the AS AT DATE together with any future dated starters.

Employee.Current and Starter Positions with Organisation As At – As above without salary information.

Employee.Current Pay with Organisation As At – Only returns current employees on the AS AT DATE.

Employee.Current Positions with Organisation As At – As above without salary information.

Employee.Leaver Positions with Organisation Between Dates – Returns leavers between dates.
Employee.Starter and Leaver Positions with Organisation Between Dates – Returns starters and leavers between dates.

Employee.Starter Positions with Organisation Between Dates – Returns starters between dates.
## Appendix 2: Crystal Reports Toolbars

<table>
<thead>
<tr>
<th>Icon</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Standard Toolbar" /></td>
<td>New Report</td>
<td>Start a new report – this option will always use the “New Report Wizard”.</td>
</tr>
<tr>
<td><img src="image" alt="Standard Toolbar" /></td>
<td>Browse to Existing report</td>
<td>Opens a report already created for you to edit.</td>
</tr>
<tr>
<td><img src="image" alt="Standard Toolbar" /></td>
<td>Save Report</td>
<td>Save a report for later use.</td>
</tr>
<tr>
<td><img src="image" alt="Standard Toolbar" /></td>
<td>Print Report</td>
<td>Opens the Printer Setup screen to allow you to print the report data.</td>
</tr>
<tr>
<td><img src="image" alt="Standard Toolbar" /></td>
<td>Preview Report</td>
<td>Previews the reports' data.</td>
</tr>
<tr>
<td><img src="image" alt="Standard Toolbar" /></td>
<td>HTML Preview</td>
<td><em>Only available with Business Object Enterprise.</em></td>
</tr>
</tbody>
</table>
The most common formats to export to are:

**PDF**
PDF format is a page-based format. The exported documents are intended for printing and redistribution. PDF format will export both layout and formatting in a manner that is consistent with how the report looks on the Preview tab.

**Microsoft Excel (97-2003)**
Microsoft Excel format is a page-based format. This format converts your report contents into Excel cells on a page-by-page basis. Contents from multiple pages are exported to the same Excel worksheet. If a worksheet becomes full and there is more data to export, the export program creates multiple worksheets to accommodate the data. If a report object covers more than one cell, the export program merges cells to represent a report object. Microsoft Excel has a limit of 256 columns in a worksheet; therefore, any report object (or part of it) that is added to cells beyond 256 columns is not exported. This export format retains most of the formatting, but it does not export line and box objects from your report.

**Microsoft Excel (97-2003) Data-only**
Microsoft Excel Data-only, as the name suggests, is a record-based format that concentrates on data. Even so, this format does export most of the formatting, too. Unlike Microsoft Excel format, Microsoft Excel Data-only format does not merge cells—each object is added to only one cell. This format can also export certain kinds of summaries in Crystal Reports as Excel functions. The summaries that are supported are SUM, AVERAGE, COUNT, MIN and MAX.

**Cut**
Use the Cut command any time you wish to cut (delete) a selected object while holding it on the Clipboard for later use.

**Copy**
Use the Copy command any time you wish to hold a copy of a selected object on the Clipboard for later use without disturbing the object as it currently appears in the report. You can copy entire report objects, including charts and maps, to the Clipboard. This allows you to copy the data values from any report and paste them into other applications as bitmap images, text files, metafiles, and so on.
<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paste</td>
<td>Use the Paste command any time to paste (insert) an object from the Clipboard into your report.</td>
</tr>
</tbody>
</table>
| Format Painter      | Use the Format Painter to copy absolute or conditional formatting properties from one report object to one or more target objects. The Format Painter button is activated on the Standard toolbar when you select a source object in your report. If you apply formatting to a target field that is not the same as your source field, only the common properties are applied. For example, if your source field is a Boolean field and your target field is a currency field, only the common font and border properties are changed; Boolean properties are not applied and currency properties are not set. Note:  
  - The Format Painter does not copy hyperlink information to a target object or field.  
  - The Format Painter does not copy formatting that is applied through use of the Highlighting Expert. |
| Undo                | The Undo command is a dynamic command. The command name (as seen on the menu) changes based on the last action you performed. Undo reverses the effects of an action and restores your document to the way it appeared before you performed the action. The program supports multiple levels of Undo. |
| Redo                | The Redo command is a dynamic command. The text changes on the menu based on the last Undo you performed. Redo restores the effects of an Undo and returns your document to the way it was before using the Undo command. The program supports multiple levels of Redo. |
| Toggle Preview Pane | The Group Tree can be shown or hidden using the Toggle Preview Panel button on the Standard toolbar. The Group Tree presents a split screen:  
  - The right pane displays the report.  
  - The left pane displays a high level outline of the report, showing the hierarchy of groups and subgroups in a familiar tree format. |
<p>| Field Explorer      | Displays the field explorer box.                                                                                                                                                                             |</p>
<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Report Explorer" /></td>
<td>Displays the report explorer box</td>
</tr>
<tr>
<td><img src="image" alt="Repository Explorer" /></td>
<td>Not used for this version.</td>
</tr>
<tr>
<td><img src="image" alt="Dependency Checker" /></td>
<td>Only used for workbench.</td>
</tr>
<tr>
<td><img src="image" alt="Workbench" /></td>
<td>We will not be looking at this in this manual.</td>
</tr>
<tr>
<td><img src="image" alt="Find" /></td>
<td>Use the Find command to find text or particular values of a field in the report.</td>
</tr>
<tr>
<td>Formatting Toolbar</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Arial</td>
<td>Change the select field(s) to a particular font.</td>
</tr>
<tr>
<td>10</td>
<td>Change font size.</td>
</tr>
<tr>
<td>A⁺ A⁻</td>
<td>Increases/Decreases the font size of the selected data one point each time the button is clicked.</td>
</tr>
<tr>
<td>B I U</td>
<td>Bold/Italic/Underlined.</td>
</tr>
<tr>
<td></td>
<td>Left/Centre/Right/Justified.</td>
</tr>
<tr>
<td>Font Colour</td>
<td>Change font colour.</td>
</tr>
<tr>
<td>Outside Borders</td>
<td>Select what borders a field has.</td>
</tr>
<tr>
<td></td>
<td>Suppresses the selected field or report object.</td>
</tr>
<tr>
<td>Lock Format</td>
<td>Locks the formatting of the selected data so it can't be changed accidentally.</td>
</tr>
<tr>
<td>Lock Size/Position</td>
<td>Locks the size and position of the selected field or report object in relation to another object to its right.</td>
</tr>
<tr>
<td>Currency</td>
<td>When a number field is selected, places a currency symbol with the number.</td>
</tr>
<tr>
<td>Thousands</td>
<td>When a number field is selected, places a thousand separator in the number.</td>
</tr>
<tr>
<td>Percent</td>
<td>When a number field is selected, places a percentage sign with the number.</td>
</tr>
<tr>
<td>Action</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Increase Decimals</td>
<td>When a number field is selected, adds one decimal place to the number.</td>
</tr>
<tr>
<td>Decrease Decimals</td>
<td>When a number field is selected, removes one decimal place from the number.</td>
</tr>
</tbody>
</table>
### Insert Toolbar

<table>
<thead>
<tr>
<th>Icon</th>
<th>Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Insert Text Object" /></td>
<td>Insert Text Object</td>
<td>Inserts a text object.</td>
</tr>
<tr>
<td><img src="image" alt="Insert Group" /></td>
<td>Insert Group</td>
<td>Inserts a group.</td>
</tr>
<tr>
<td><img src="image" alt="Insert Summary" /></td>
<td>Insert Summary</td>
<td>Inserts a summary.</td>
</tr>
<tr>
<td><img src="image" alt="Insert Cross-tab" /></td>
<td>Insert Cross-tab</td>
<td>Inserts a Cross-tab</td>
</tr>
<tr>
<td><img src="image" alt="Insert OLAP grid object" /></td>
<td>Insert OLAP grid object</td>
<td>Inserts an OLAP grid object. <em>Not used in this manual.</em></td>
</tr>
<tr>
<td><img src="image" alt="Insert Subreport" /></td>
<td>Insert Subreport</td>
<td>Inserts a subreport.</td>
</tr>
<tr>
<td><img src="image" alt="Insert Line" /></td>
<td>Insert Line</td>
<td>Inserts a line.</td>
</tr>
<tr>
<td><img src="image" alt="Insert Box" /></td>
<td>Insert Box</td>
<td>Inserts a box.</td>
</tr>
<tr>
<td><img src="image" alt="Insert Picture" /></td>
<td>Insert Picture</td>
<td>Inserts a picture. <em>You can use this for your Company Logo.</em></td>
</tr>
<tr>
<td><img src="image" alt="Insert Chart" /></td>
<td>Insert Chart</td>
<td>Inserts a chart.</td>
</tr>
<tr>
<td><img src="image" alt="Insert Map" /></td>
<td>Insert Map</td>
<td>Inserts a map. <em>Not used in this manual.</em></td>
</tr>
<tr>
<td><img src="image" alt="Insert Flash Object" /></td>
<td>Insert Flash Object</td>
<td>Inserts a flash object. <em>Not used in this manual.</em></td>
</tr>
<tr>
<td>Expert Toolbar</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>![Database Expert]</td>
<td>Opens the Database Expert. Select a data source and tables/views/stored procedures on the Data tab. Click the Links tab to define links between tables (if more than one being used at same time).</td>
<td></td>
</tr>
<tr>
<td>![Group Expert]</td>
<td>Opens the Group Expert. Use the expert to create, modify, and delete groups.</td>
<td></td>
</tr>
<tr>
<td>![Group Sort Expert]</td>
<td>Finds Top or Bottom N records or sorts on summary information.</td>
<td></td>
</tr>
<tr>
<td>![Record Sort Expert]</td>
<td>Sets record sort order.</td>
<td></td>
</tr>
<tr>
<td>![Select Expert]</td>
<td>Activates the Select Expert for you to set record/group selection criteria.</td>
<td></td>
</tr>
<tr>
<td>![Section Expert]</td>
<td>Activates the Section Expert for you to format any section of the report.</td>
<td></td>
</tr>
<tr>
<td>![Formula Workshop]</td>
<td>Activates the Formula Workshop.</td>
<td></td>
</tr>
<tr>
<td>![OLAP Design Wizard]</td>
<td><em>Not used in this manual.</em></td>
<td></td>
</tr>
<tr>
<td>![Template Expert]</td>
<td><em>Not used in this manual.</em></td>
<td></td>
</tr>
<tr>
<td>![Format]</td>
<td>Activates the appropriate editor to modify object properties.</td>
<td></td>
</tr>
<tr>
<td>![Insert Hyperlink]</td>
<td>Inserts a hyperlink.</td>
<td></td>
</tr>
<tr>
<td>![Highlighting]</td>
<td>Activates the Highlighting Expert.</td>
<td></td>
</tr>
<tr>
<td>Navigation Toolbar</td>
<td>Action</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------</td>
<td>---------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Refresh</td>
<td>Refreshes report data. Can also use the F5 button.</td>
<td></td>
</tr>
<tr>
<td>Stop</td>
<td>Stop</td>
<td>Stops gathering data from your data source after you have clicked Refresh.</td>
</tr>
<tr>
<td>Show First Page</td>
<td>Show First Page</td>
<td>Goes to the first page in your report.</td>
</tr>
<tr>
<td>Show Previous Page</td>
<td>Show Previous Page</td>
<td>Goes to the previous page in your report.</td>
</tr>
<tr>
<td>Page Selector</td>
<td>Display the number of the current page.</td>
<td>Displays the number of the current page. Type a number and click Enter to go to that page.</td>
</tr>
<tr>
<td>Show Next Page</td>
<td>Show Next Page</td>
<td>Goes to the next page in your report.</td>
</tr>
<tr>
<td>Show Last Page</td>
<td>Show Last Page</td>
<td>Goes to the last page in your report.</td>
</tr>
</tbody>
</table>