

Recorder 2002

**Designing a Report layout in
*Recorder 2000***

Stuart Ball

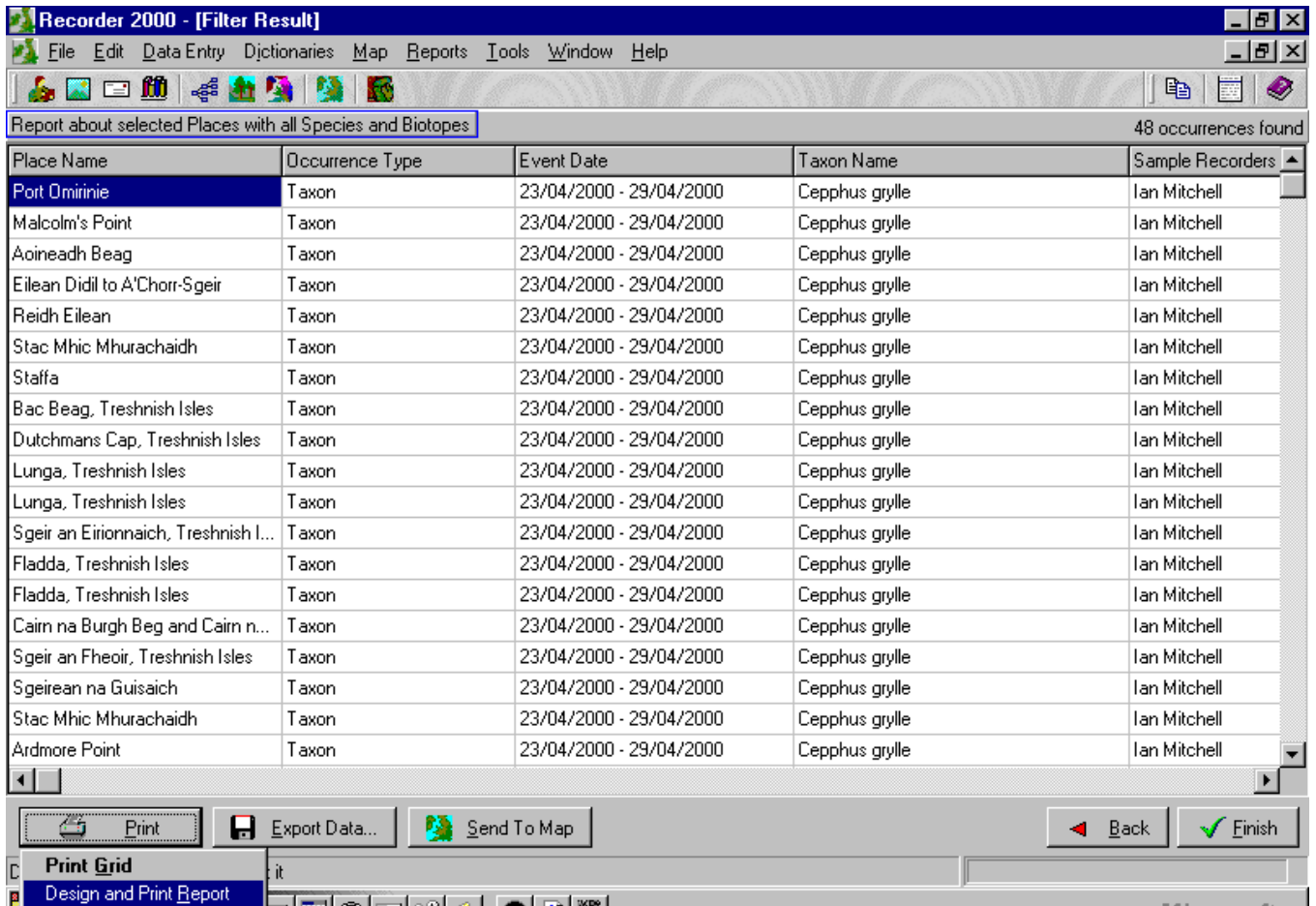
Designing a Report layout in *Recorder 2000*

Before you start.

Before you can design the report layout, you must run the Report Wizard to select the data that you want to show. Be careful to include all information that you want in your final report. If you are not sure how to do this, please refer to the documentation supplied.

It is also important that you select the "New layout" option within the Report Wizard rather than the "Use existing Layout" option. Otherwise you will be unable to create a new layout

Once you have finished using the report wizard, you should have a filter screen that looks something like this one:

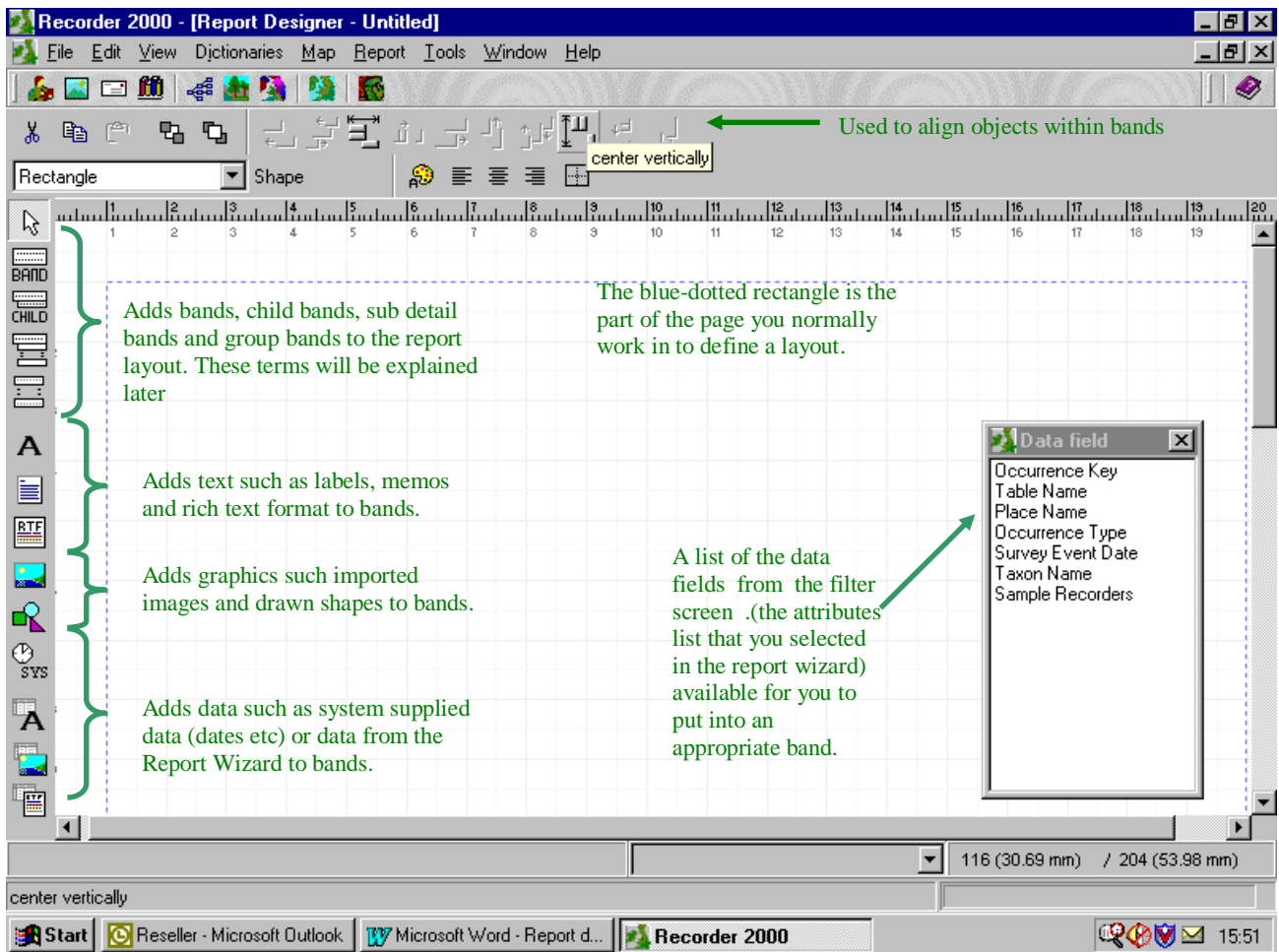


You can go back into the report wizard, as many times as you like to select and re-select data until you are happy with the filter.

Then, go to the bottom left-hand corner of the screen and select the Print - Design and Print Report option. This will open the Report designer.

The Report Designer in *Recorder 2000* is a "banded report designer" meaning that reports are built up of sections called "bands" which can contain various types of information such as fixed text, graphics, system supplied data, fields from the database and expressions.

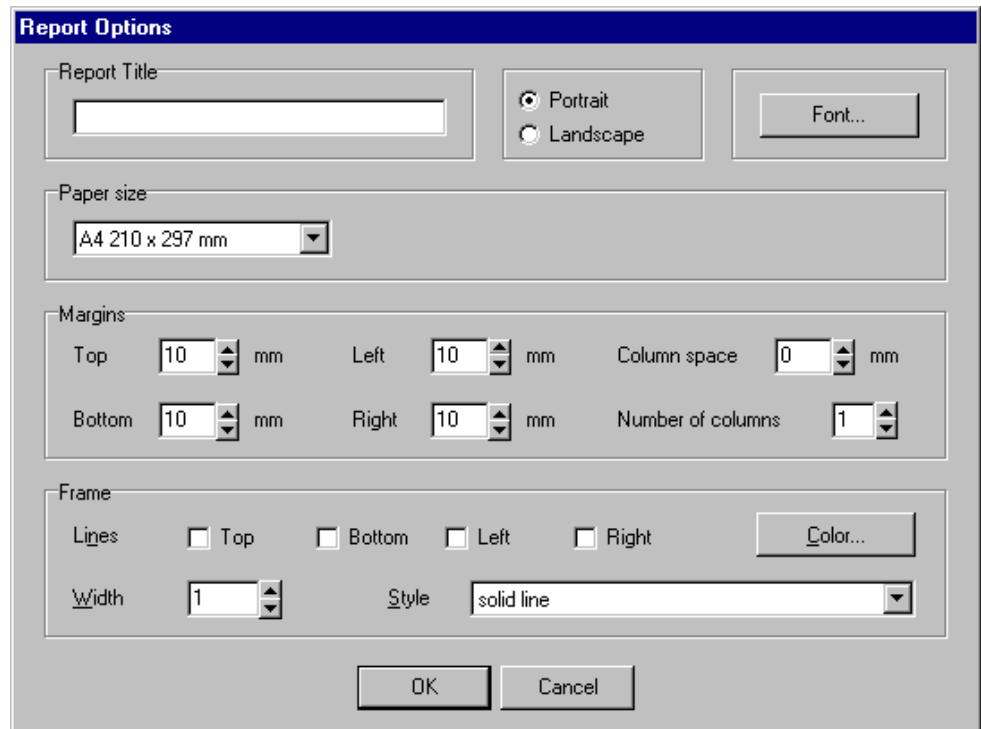
The Report designer page:



The first thing to do is set the overall options for the report. Right click somewhere on the layout screen and the following dialog box will appear:

The options are fairly standard. The only unusual option being that of the frame which is a border around the entire page. It will be shown in the same place as the dotted blue line around the report screen

Once you are happy with your selections click "OK" You can now begin to design the inside of your report.



The Report Designer in *Recorder 2000* creates reports made up of sections or "bands". Each "type" of band has specific characteristics that control where they appear in your final report and how many times. Within each band you can put the data that you want along with logos and dates etc. Each band can be formatted individually if you wish. For demonstration purposes I have included only one of each type of band in my demonstration report. However, you can use as many of each type in your reports as you wish.

Types of bands

The six most commonly used bands are named and described below. There are more, some of which will be introduced later. The type name only suggests what they might be used for. You can use them however you want.

Title

This prints out only once at the very start of the report. Obviously, it can be used for the title, but could also be used for things like your organisation's logo or letterhead, the creation date, author's name, etc. Anything that only want printed once, at the beginning of the report

Page Header

This is the first band that is printed on every page (above the title). You can use this band to print a standard header on each page such as a company logo or a date etc. You can choose whether it prints on the first page or not

Column Header

This band is also printed once on every page and immediately follows the Page Header. It is usually used to print column names.

Detail

The detail band normally forms the bulk of the report. One detail band is printed for each row of data in the data set generated by the report Wizard.

Summary

This band is printed once only in each report. It follows the last detail band and is typically used for printing totals, averages, etc. It could also be used to print things like copyright notices that you want to appear at the end of each report.

Page Footer

This band is printed at the bottom of each page of the report. It is typically used to show information like the page number.

Within each band you can put the information that you want on your report. You can enter more than one piece of information or "report element" in each band if you wish.

Fixed text

Text that you have written onto the page. It will be re-created on the report exactly as you have written it.

Graphics

These may be drawn or be imported images.

Calculations

These are very similar to calculations within Excel and follow similar rules.

Data set fields

Refers back to the actual data that you have selected using the report wizard

System supplied fields

Data such as dates which is supplied from your computer system

Designing a simple Report

The easiest way to explain the concepts that we have discussed is to design a simple report.


- This report will have the title and the author's name printed on the first page only. The title will contain a logo
- It will have a header on every page except the first one, containing a logo
- There will be three columns containing data from the report wizard
- There will be a summery section on the last page with a list of contributors in it and a description of the survey
- The page number will be printed at the bottom of every page.

(Before you start the design, you should ensure that you have, in the data from your report wizard at least 3 fields to import.)

Adding your bands

Your first band will be the band containing your company logo. As you want it to be printed on the top of every page, it will be of the "Page Header" type.

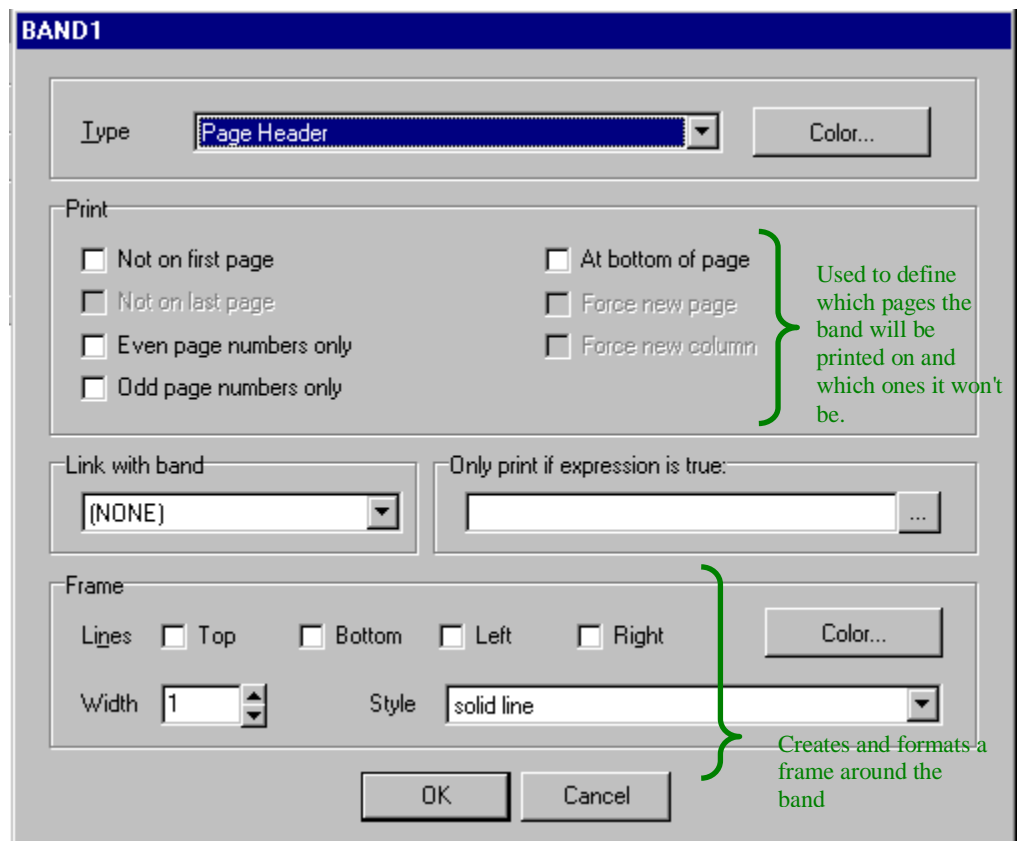
Click on the "add new band"

button  and then click inside the blue dotted rectangle. A band will be added at the top of the layout area entitled "BAND 1" in large, grey letters and the following dialog box will appear:

Select the correct band type (in this case page header) and format your band using the elements in the dialogue box. For this example, select, "Not on first page" Once you are happy with your selection, click "OK"

The small black label in the bottom left hand corner of "BAND 1" should now change to "page header"

Bands can be stretched or shrunk at any time. Click on the band and drag it to the right size and shape using the drag handles



Used to define which pages the band will be printed on and which ones it won't be.

Creates and formats a frame around the band

Repeat this process for the other bands in the report. When you have finished, you should have 6 bands of the following types down the page:

- 1 Page header band (for the company logo)
- 1 Title band (for the title)
- 1 Column header band (for the 3 column heads)
- 1 Detail band (for the data within the report)
- 1 Summery band (for the summery information)
- 1 Page footer for the page number

Adding information to the bands

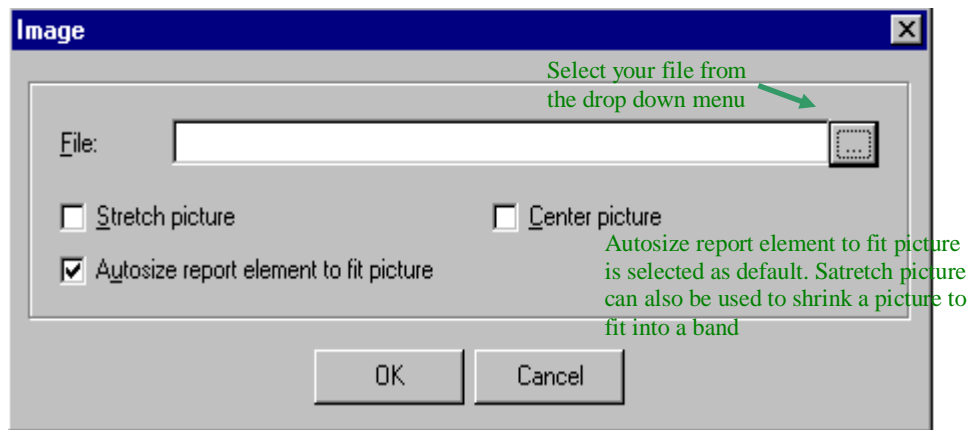
1. Importing a logo onto the Page Header band and the Title Band

Select the correct band by clicking on it and click on the add new image button

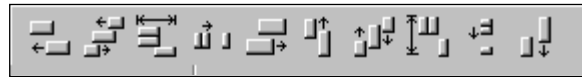


The following dialogue box will appear which allows you to find and format the picture.

Once you are happy with the image, click OK.



The logo element (or any other element) can be positioned within the band by using the formatting icons at the top of the page. Some of these icons are only available when you have selected more than one element. To select more than one element, keep your finger on the shift key as you click on the element you want to select.



Elements can also be moved within the band by clicking on them and dragging them to the right size and shape.

If you want to see how your design is going to look, there is a print preview option under file in the top left hand corner of the screen

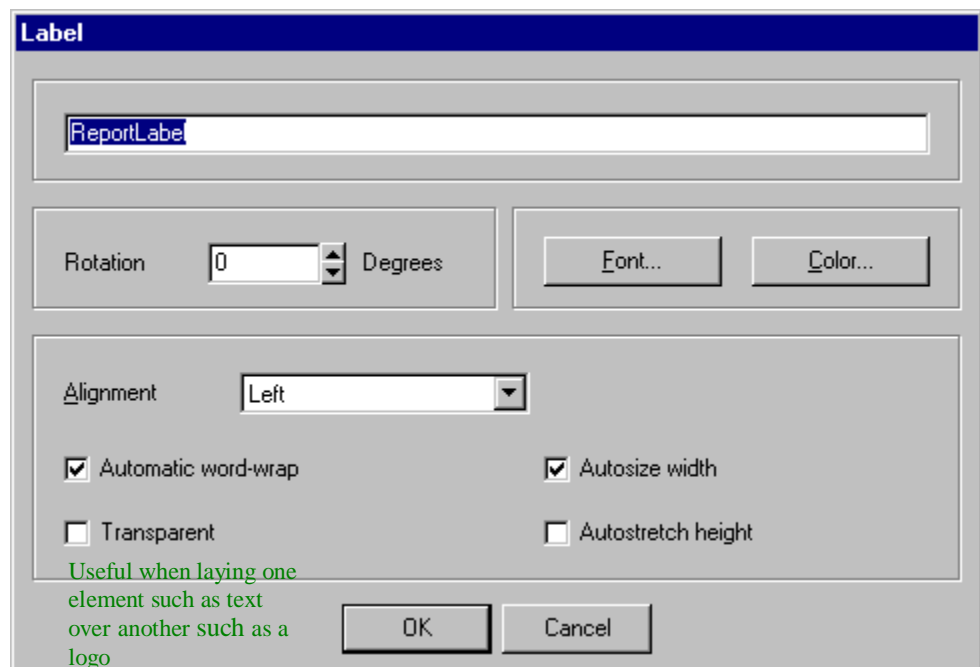
2. Adding text to the title band

Click on the "add new label" button **A** and then click in the title band. The label dialog box will appear:

Enter the appropriate text and format for your title and click "OK."

Position the title where you want it.

NOTE You do not have to enter text into a "title" type band. You can put any type of data into any type of band. This is just an example. Feel free to put different elements into the same band.



3. Entering the column headers onto the column header band

These are added as text (See point 2). Enter each column headers as a different element and use the formatting buttons to ensure that they are laid out correctly.

4. Entering data from a data field into the detail band.

Click and drag fields from the "data field " box into the detail band. If you want the whole data set to be entered, you MUST use the detail type band. Arrange the fields within the band in the same way as the column headers. Use the print preview option to make sure that it all looks OK

5. Entering data into the summary band

The summary band can be used for text such as a list of contributors or a copyright notice (see point 2) However, the summary band is sometimes used for calculations. If a calculation is required, please see the next section, entitled "more complicated reports"

6. Adding system supplied data to the page footer.

Click on the page footer band and then on the add new system field icon.



A dialogue box will appear. Choose the text and the type of system supplied data you want. Change to the right format and click "OK"

The finished report designer page should look something like this:

The report designer page shows a grid layout with several bands and fields. The bands are labeled as follows:

- BAND1: [Empty band]
- BAND2: Page Header [Empty band]
- BAND3: Title [Demonstration Report] [By Hannah Betts]
- BAND4: Column Header [Location] [Date] [Species]
- BAND5: Detail [Event Location Name] [SAMPLE_VAGUE_DATE] [Taxon Name]
- BAND6: Summary [All data provided from a survey on invertebrate communities in Orkney in 1997 by Dr. S. Wilkinson.]
- BAND7: Page Footer [Empty band]

After using print preview to make sure that you are happy with the end result, print out your report.

You have now produced a simple report. Congratulations.

The layout can be saved and used again. However, it is worth noting that you will not be able to re-edit your layout. You would have to start from the beginning again.

More Complicated reports

What are group bands

So far we have seen a simple columnar report. It is possible to produce far more complex reports using group bands. A group band has a special field (or expression) assigned to it.

IT ONLY PRINTS WHEN THE VALUE OF THAT FIELD OR EXPRESSION CHANGES.

This enables you to link results together in the most logical and useful manner for you.

Consider a small subset of data.

Aberithon Turbary station 1	<i>Anasimyia lineata</i>	17/07/1989	Dave Reid
Aberithon Turbary station 1	<i>Helophilus pendulus</i>	17/07/1989	Dave Reid
Aberithon Turbary station 1	<i>Helophilus pendulus</i>	10/10/1989	Dave Reid
Aberithon Turbary station 1	<i>Neoascia tenur</i>	17/07/1989	Dave Reid

As all samples are from the same point, there is no need to keep repeating the data. It may be easier to have that information just at the top.

Aberithon Turbary station 1			
	<i>Anasimyia lineata</i>	17/07/1989	Dave Reid
	<i>Helophilus pendulus</i>	17/07/1989	Dave Reid
	<i>Helophilus pendulus</i>	10/10/1989	Dave Reid
	<i>Neoascia tenur</i>	17/07/1989	Dave Reid

It could be that you are most interested in the differences between dates. If so you may wish to group the data like this:

Aberithon Turbary station 1			
17/07/1989			
	<i>Anasimyia lineata</i>		Dave Reid
	<i>Helophilus pendulus</i>		Dave Reid
	<i>Neoascia tenur</i>		Dave Reid
10/10/1989			
	<i>Helophilus pendulus</i>		Dave Reid

Or, you could be most interested in the difference between species and choose to display the data like this:

Aberithon Turbary station 1			
<i>Anasimyia lineata</i>	17/07/1989	Dave Reid	
<i>Helophilus pendulus</i>	17/07/1989	Dave Reid	
	10/10/1989	Dave Reid	
<i>Neoascia tenur</i>	17/07/1989	Dave Reid	


This is exactly what group bands allow us to do. To achieve the last layout we would have two group bands, the first to print when the location changes and the second when the species name changes. The detail band, containing the date and the determiner's name, would still print for every row of data.

Group bands can be shown either as "Group headers" which print a sub-heading at the beginning of a group (as above) or "Group footers. Footers are particularly useful for printing sub-totals and other statistical data. Groups can be nested to an unlimited number of levels, making very complex layouts possible.

Note that the way in which the rows are sorted is absolutely critical when you use group bands. To work properly in this case the rows MUST be sorted by location and then by species name. Group bands print whenever their controlling expression changes, so if the rows are not sorted so as to group rows correctly, the report will not print as intended.

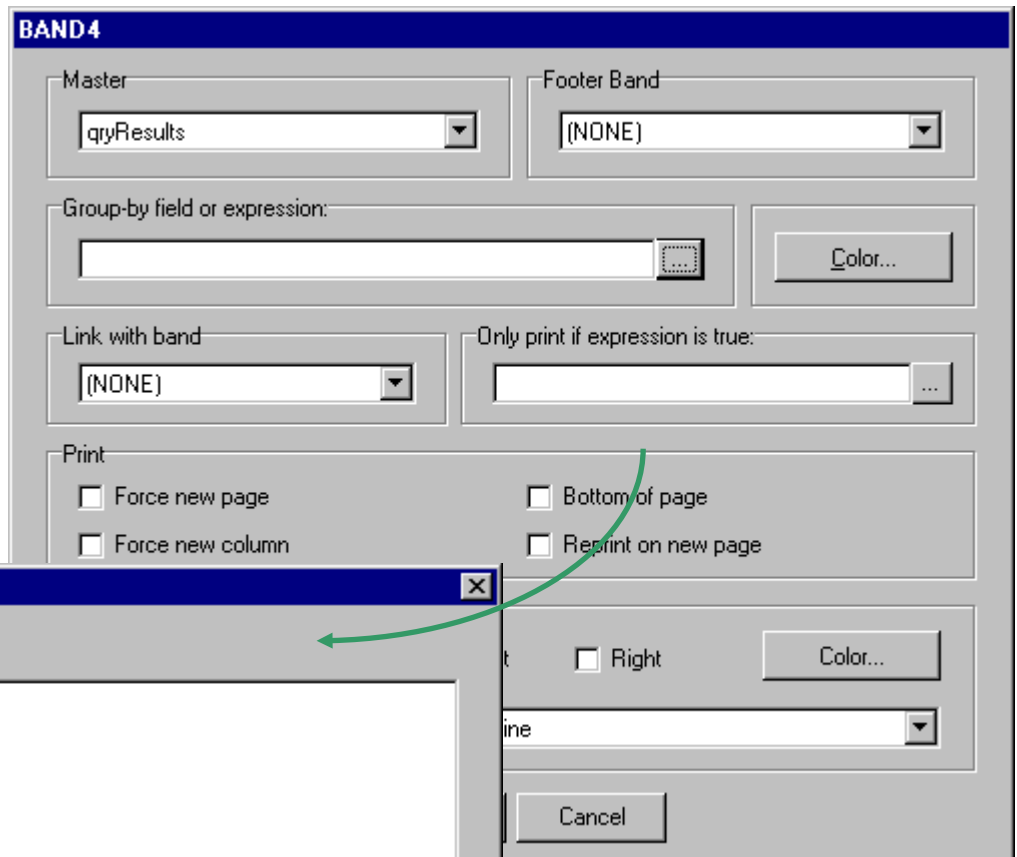
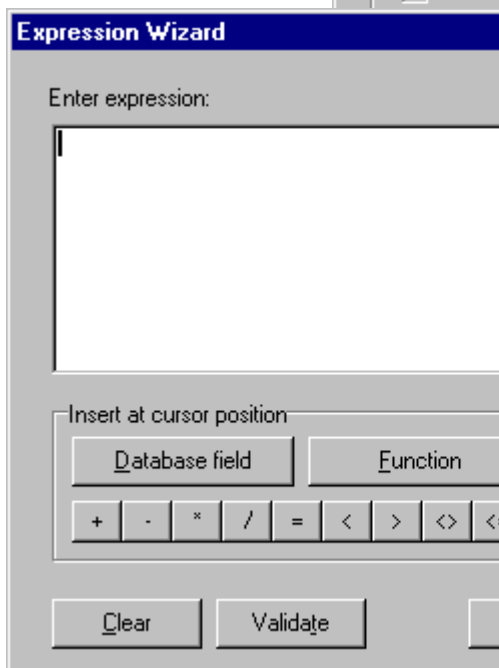
Using Group bands

Use the Wizard to select some data as above making sure that “Event Location name” AND “Taxon name” are selected in the Sort attributes screen. From the “Filter results” Widow, select “Print”, “design and print report” as before.

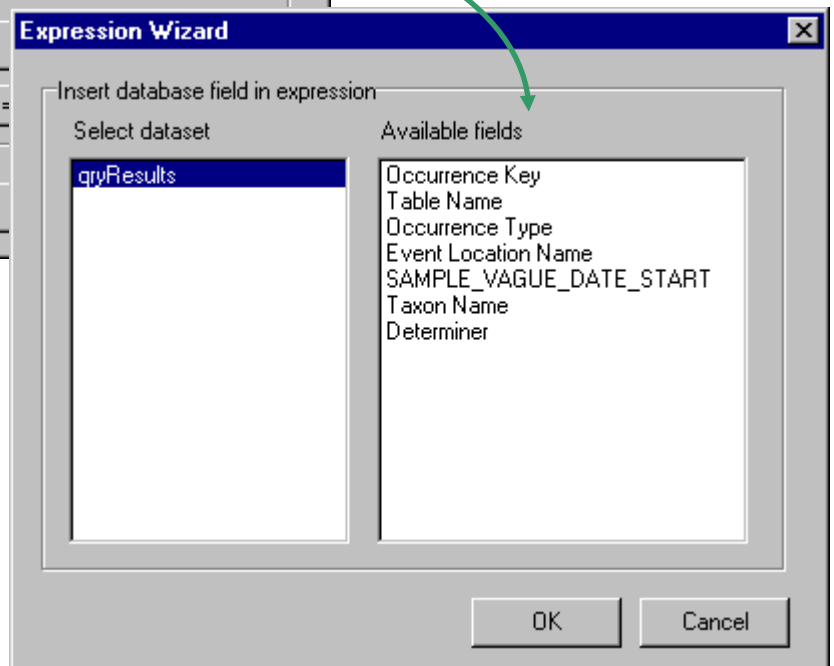
This time, click on the “add new group band” button  and then click on the layout area. The “group band” dialog box will appear:

1. Click on the elipses button  at the right-hand end of the “Group-by field or expression” edit box.

This will bring up the expression wizard dialogue box.

Click on the "database field" button



Select “Event Location Name” and click, “OK. Click “OK” on the Expression Wizard dialog and “OK” on the “BAND” dialogue box.


You should now see an empty band entitled “Group header” on your page.

Add an “Event Location Name” data field to this band by dragging it from the list of available fields (see previous notes) . Set its position, size, font, etc. as before. This band will display only when the "Event Location Name" changes

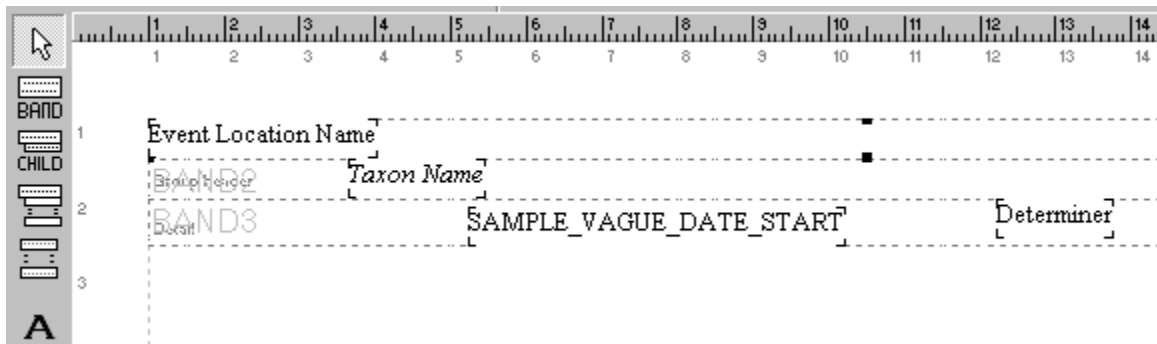
Add another group band in the same way except that when you get back to the “BAND 2” dialogue box, use the drop down list in the “Link with band” prompt to link it with “BAND 1”.

This will ensure that this group is a sub-group nested within the first group band. Close the “BAND 2” dialogue box by clicking “OK”.

Enter a "Species Name" field to this band as before. This band will display only when the species name changes.

Add a “Detail” band by clicking the “add new band button”  and selecting “Detail” as its type. Link to band 2 to ensure that this group is a sub-group nesting within the second band and add “SAMPLE_VAGUE_DATE” and “Determiner” data fields.

You should now have a layout that looks something like:



Select “File – Print preview” from the main menu. The report should look something like:

```

Aber Mawr station 1
    Helophilus pendulus
        29/09/1987
    Dave Reil
    Neosascia tenur
        29/09/1987
    Dave Reil
Aberithon Turbarry station 1
    Anasimya lineata
        17/07/1989
    Dave Reil
    Helophilus pendulus
        17/07/1989
    Dave Reil
        10/10/1989
    Dave Reil
    Neosascia tenur
        17/07/1989
    Dave Reil
    
```

Play around with fonts sizes and positions until you are happy with your report. Then print.

Conclusions

There are a lot more facilities in QuickReports, but I hope this is enough to get you started. Experiment with putting frames round things, colouring and shading bands, including images, logos etc.