
# Report Designer Tutorial

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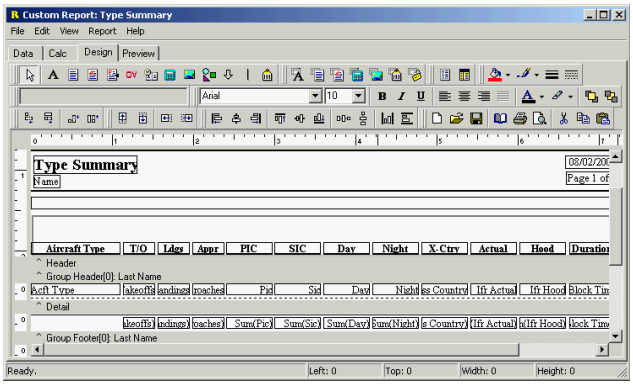
# Introduction

This book presents a series of tutorials developed to teach you how to create stunning AeroLog Pro reports . The tutorials begin with the basics, such as how to use the Report Designer, and ends with advanced reporting techniques using multiple sub-reports. This guide should therefore be helpful to both the novice and the seasoned report-builder.




**DESIGN**

The Report Designer, pictured above, is the tool you will use to build reports. It contains three workspaces: Data, Design, and Preview. When first displayed, the Report Designer defaults to the design workspace because this is where you will spend the majority of your report-building time. The design workspace is divided into two areas: the workbench and the canvas. The workbench is comprised of toolbars, component palettes, rulers, and other tools that can be used to manipulate the canvas. The canvas is the area that contains the report layout. This is where we place the bands and components that will ultimately control the content of each page of the report.

**PREVIEW**

The preview tab plays an integral role in the report-creation process because it allows you to see how the report will look when printed. As you work through the tutorials, you'll notice that this workspace is frequently accessed so that we can see how the report is shaping up. We will make many changes and corrections based on what we see in this workspace. The tools in this space allow you to view each page of the report or zoom in to get a better look at a specific page. You can also print the report from the preview workspace.

**DATA**

The data workspace is often the key to successful report creation because it allows us to select and manipulate the data needed for a given report. These tasks are accomplished via two visual tools: the Query Wizard and the Query Designer. These tools greatly simplify the often-difficult task of data selection by giving us the ability to select data without requiring an in-depth knowledge of databases.

Once the data is selected, we can begin laying out the report. The primary purpose of a report is to transform raw data into information. Our task as report-builders is essentially to make data meaningful. The following tutorials will show you how to do just that.

**ABOUT THIS BOOK**

As you work through this guide, it is important to keep in mind that the tutorials build on one another, moving from basic concepts to complex reports. Therefore, it may be difficult to complete an advanced tutorial without having first completed earlier tutorials. Each tutorial produces some kind of report and brings to light important aspects of ReportBuilder.

- *A Quick Test Spin* gives you a glimpse of the Report Designer's report-building potential.
- *Calisthenics* offers a series of exercises that prepare you for the tutorials. You will be a nimble user when you complete the calisthenics.
- The *Summary Tutorial* concentrates all that you learned in Calisthenics into a report. Like the tutorials that follow, it gives you an opportunity to use all the tricks you learned in Calisthenics.
- The *Cover Page* tutorial illustrates the ease with which you can design a cover page so that the report looks clean and professional.
- The *Simple Table Listing* tutorial shows you how to build a report using the Report Wizard and introduces “joined-tables” datasets, and some ways to handle repeating data.

- The *Flights Grouped by Aircraft* tutorial illustrates

how to create a flight listing which is grouped and sub-totaled by aircraft. It also illustrates how to import and use a saved DataView

# A Quick Test Spin

**OVERVIEW**

This simple exercise provides an introduction to the Report Designer, the Query Wizard, and the process of building reports. The purpose of this tutorial is to show you what it takes to build a report, so if this exercise starts to feel a little over your head, don't worry. We will cover the meaning behind the actions in later tutorials. The final report for this tutorial should contain a list of flights including:

- The departure date of each flight
- The route of each flight (From, To & Via)
- The flight duration (block-time) for each flight

| Departure Date | Route | Duration |
|---|---|---|
| 09/27/1984 | K17N,K17N | 0:30 |
| 10/05/1984 | K17N,K17N | 1:00 |
| 10/12/1984 | K17N,K17N | 1:12 |
| 10/17/1984 | K17N,K17N | 1:06 |
| 10/26/1984 | K17N,K17N | 1:00 |
| 10/28/1984 | K17N,K17N | 0:36 |
| 11/06/1984 | K17N,K17N | 1:00 |
| 11/09/1984 | K17N,K17N | 1:00 |
| 11/16/1984 | K17N,K17N | 0:54 |
| 11/19/1984 | K17N,K17N | 1:00 |
| 11/23/1984 | K17N,K17N | 1:06 |
| 11/27/1984 | K17N,K17N | 0:54 |
| 11/30/1984 | K17N,K17N | 1:06 |
| 12/08/1984 | K17N,K17N | 0:54 |
| 12/10/1984 | K17N,K17N | 0:54 |
| 12/22/1984 | K17N,K17N | 0:54 |
| 12/24/1984 | K17N,K17N | 1:06 |
| 01/10/1985 | K17N,K17N | 0:54 |
| 01/19/1985 | K17N,K17N | 0:48 |

Note: If this tutorial seems too difficult, proceed to *Calisthenics* and go through it first, then return to this tutorial.

**GETTING STARTED**

It will be helpful for you to become familiar with the following set of directions because you'll repeat this process to begin each report.

- Start AeroLog Pro and click the Custom Reports button.
- Click the New Report button in the navigator bar.
- Click on the Data tab.
- Select [File|New] in to open the New Items dialog.
- Double-click on the Query Wizard icon. The Query Wizard will come up with a list of available tables.

**QUERY WIZARD**

The Query Wizard is a tool that allows you to access information from your database to use in your report.

- Choose the PilotLog table by double-clicking on it. Confirm your selection by verifying that the table name appears in the Selected Tables list.
- Click the Next button. Keep clicking Next until you reach the Set Order page.
- Click on the Set Order button.
- Double-click on PilotLog.Dep_Date so it appears in the Selected Fields list.
- Click Next.
- A screen with a checkered racing flag will appear. Select the Preview radio button near the bottom, then click Finish. A Data Preview screen will appear listing information from the PilotLog table.
- When you're finished looking at the Preview screen, click OK.
- You've officially completed your first query via the Query Wizard. You'll notice a new window in the upper left-hand corner of the data workspace. This is the *dataset* you just created. It represents the data, which is selected from the database each time the report is generated.
- Click on the Design tab to begin laying out your report.

**DESIGN WORKSPACE**

The design workspace is the environment in which you will build reports. Whatever you put in the header band (the white space above the word “Header”) will appear at the top of each page of the report; whatever you put in the detail band will be the body of the report, and whatever you put in the footer band will appear at the bottom of each page of the report.

**Task 1: Place and name labels**

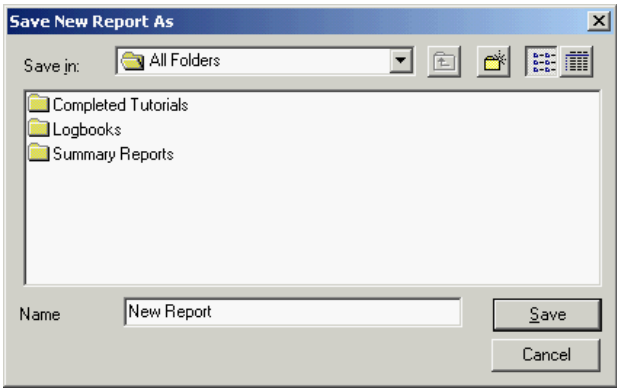
- Locate the Label button on the toolbar.

- Click on the Label button, then click in the white space of the header band to add a new Label component.
- Repeat the above to add two more Labels in the header band.
- Select the Label1 component by clicking once on it. Locate the edit toolbar (below the Label component button on the toolbar). It should contain the text "Label1", which is the caption of the currently selected label.
- Highlight the text in the edit toolbar and type "Departure Date".


- Select Label2 and type "Route" into the edit toolbar.
- Select Label3 and type "Duration" into the edit toolbar.

**Task 2: Save the report**

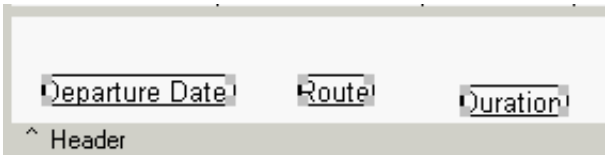
- Press Ctrl-S to save your work. A dialog box will appear that looks like this:




- Expand the drop-down list at the top of this dialog by clicking on the arrow icon. Select "All Folders" from the list. This will allow us to save the report in this folder.
- At the bottom of the dialog you should see an edit box that contains the report name. The default name is "New Report." Select the text and change the name to "Quick Test Spin." Click the Save button.
- Close the Report Designer window. Notice that your new report is listed in "All Folders."
- Select Quick Test Spin by clicking once on it, then click the Open Report button to return to the design workspace.

**Task 3: Bold the Text in the Labels**

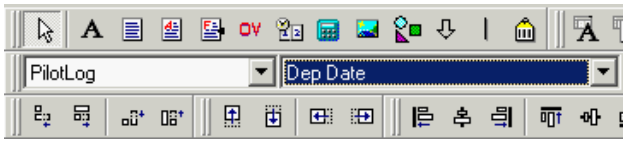
- Select the Departure Date label.
- Hold down the <Shift> key and then click on the other two labels components. All three labels should now be selected. You can tell that they are selected by the small gray boxes surrounding each label. These boxes are called selection handles.




- Click the Bold button  in the toolbar. All three label captions should change to boldface type.

**Task 4: Create DBText components**

- Locate the DBText button  on the toolbar.
- Place a DBText component in the detail band.
- Change the text from bold to regular by clicking the Bold button.
- Place two more DBText components in the detail band.
- Select DBText1. Notice that there are two drop-down list boxes in edit toolbar. The drop-down list box on the left contains the *dataset* from the data workspace . The drop-down on the right contains the fields.
- Select "Dep Date" from the drop-down list box on the right. The first date in the *dataset* should appear as the caption of the DBText1 component. If not, pull down the View menu and select Show Data, the re-select "Dep Date" from the fields list.




- Right-click on DBText1 (Dep Date) to show the options menu, then select AutoSize.

- Select DBText2 and choose “Route” from the fields list.
- Right-click on DBText2 (Route) and select AutoSize.
- Select DBText3 and choose “Block Time” from the list.
- Right-click on DBText3 (Block Time) and select ElapsedTimeFormat.
- With DBText3 still selected, click on the Right Justify button  in the toolbar.

**Task 5: Position the Label components**

- Right-click over the Departure Date label and select the Position… menu option.
- Set Left to 0.1 and Top to 0.3
- Right-click over the Route label and, in a similar fashion, set Left to 1.3.
- Set Left to 3.1 for the Duration label.
- Select the Departure Date label.
- Hold down the <Shift> key and click on the other two labels. All three labels should now be selected.
- Click the Align Top button  in the toolbar. The top edges of all three labels should now be aligned.

**Task 6: Adjust the DBText Components**

- Right-click over the Dep Date DBText component.
- Select Position... from the menu then set Top to 0.03.
- Select the the Dep Date DBText component.
- Shift-click the other DBTexts so that they are all selected.
- Click the Align Top button  in the toolbar.

**Task 7: Align the components**

- Select the Departure Date Label, then shift-click the Dep Date DBText.
- Click the Align Middle button  in the toolbar. The DBText component should be centered directly beneath the Label component.
- Select the Route Label, then shift-click the Route DBText.
- Click the Align Left button  in the toolbar.
- Left align the Duration Label and the Block Time DBText in a similar fashion
- Press <Ctrl-S> to save your work.

**PREVIEW**

The preview window in the Report Designer environment works the same way as the preview function in other Windows applications: it shows you how your report will look when it is printed.

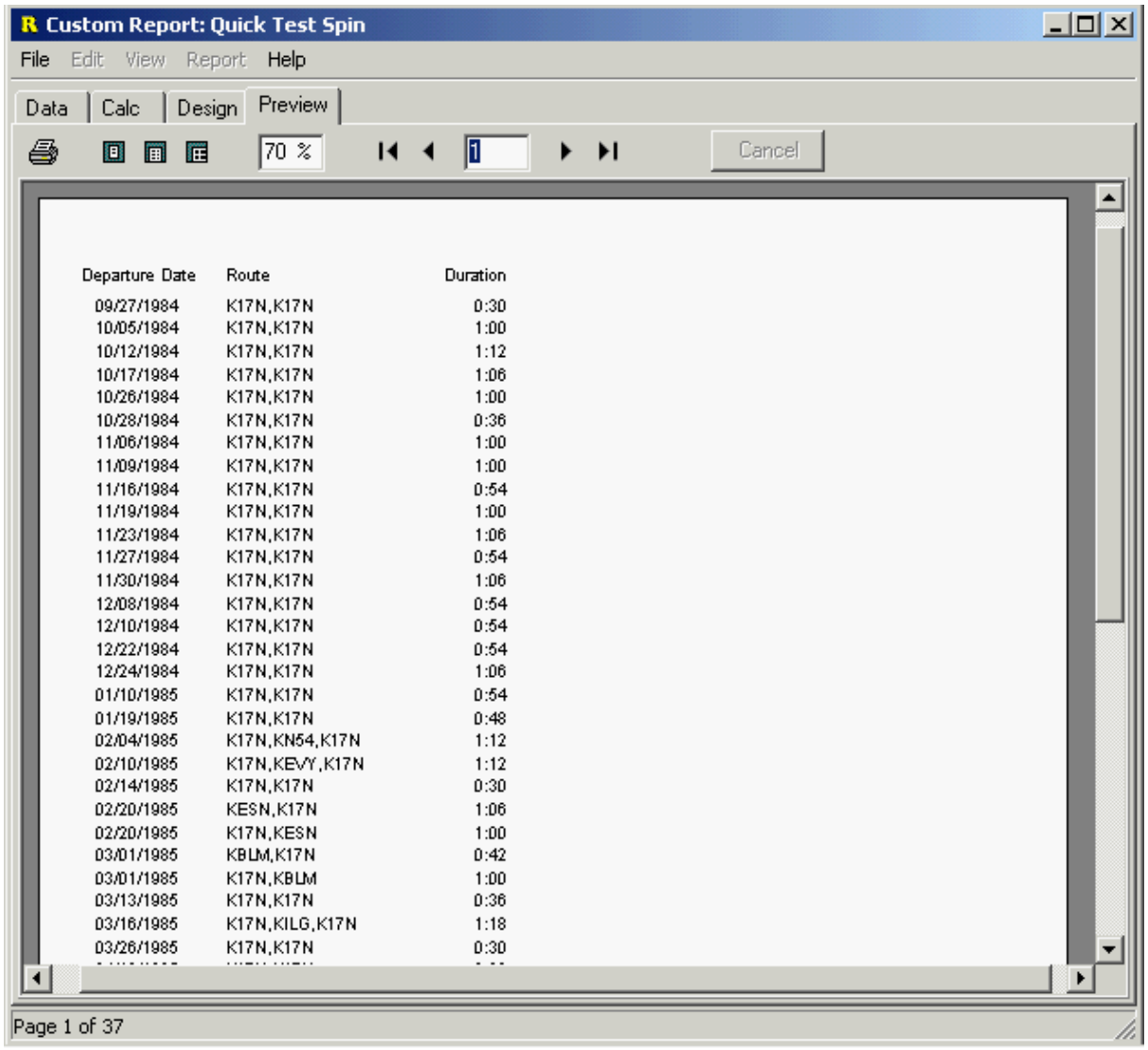
Click on the Preview tab and look at your report. Make sure that the columns are spaced evenly with plenty of room for long route lists.

Everything should look good except for the rows, which are double-spaced. That spacing takes up too much room and will waste paper when the report is printed.

**FIXES**

- When you preview a report, you'll undoubtedly find something that can be improved. Let's fix the spacing.
- Return to the design workspace by clicking on the Design tab.
- Place the mouse cursor over the gray bar labeled “Detail”. The mouse cursor will change to an up/down arrow, indicating that you can drag the section divider up and down.
- Drag the divider up until it meets the bottom of the components in the detail band.
- Preview the report once more. It should look like the report shown on the next page
- Close the Report Designer window by clicking the button at the upper right corner of the window. A dialog box asking you to “Save Changes” will appear. Click Yes.

Congratulations! You've completed your first AeroLog Pro report.


R Custom Report: Quick Test Spin
File Edit View Report Help
Data Calc Design Preview
70 %
1
Cancel
Departure Date Route Duration
09/27/1984 K17N,K17N 0:30
10/05/1984 K17N,K17N 1:00
10/12/1984 K17N,K17N 1:12
10/17/1984 K17N,K17N 1:06
10/26/1984 K17N,K17N 1:00
10/28/1984 K17N,K17N 0:36
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11/19/1984 K17N,K17N 1:00
11/23/1984 K17N,K17N 1:06
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02/10/1985 K17N,KEVY,K17N 1:12
02/14/1985 K17N,K17N 0:30
02/20/1985 KESN,K17N 1:06
02/20/1985 K17N,KESN 1:00
03/01/1985 KBLM,K17N 0:42
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03/13/1985 K17N,K17N 0:36
03/16/1985 K17N,KILG,K17N 1:18
03/26/1985 K17N,K17N 0:30
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# Calisthenics

**OVERVIEW**

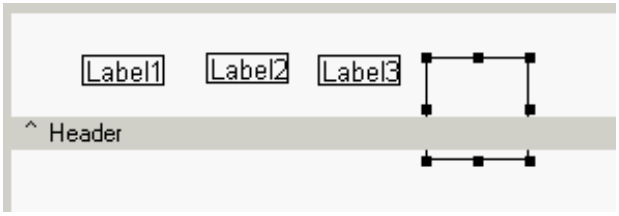
These exercises will get you oriented in the Report Designer environment and teach you to use some basic tools. It's a good idea to study this section because each task is extremely detailed, whereas the other exercises will assume that you are familiar with the basics and therefore be less explicit.

**COMPONENT CREATION**

The first thing you need to know in order to write a report is the significance of the canvas. The canvas is divided into sections called bands. A band is labeled in the section divider immediately below it; thus, the first band is called "header", the second is called "detail", and the third is called "footer". When the report generates, the bands are printed on different parts of the page. There are many different band types for different occasions, but for now we'll just use the header, detail, and footer bands.

Let's create some components and put them in the bands. A component is an element used to control how the report looks. Each component has a unique purpose.

- Start AeroLog Pro and click the Custom Reports button.
- Click the New Report button  in the navigator bar. The Report Designer will appear with the design workspace active.
- Locate the Label button  on the toolbar.
- Click on the Label button, then click in the white space of the header band. You've just created a Label component.
- Create two more Labels in the header band.
- Locate the Shape button  on the toolbar.
- Click the Shape button, then click in the white space of the header band to create a new Shape.
- Press <Ctrl-S> to save your work. Name the report "Cal-1". *Remember to save your work at the end of each task.*




**Note**: *You can use the process of clicking a component button in the toolbar, then clicking in a band to create any type of component.*

**BAND ADJUSTMENT**

Notice that the Shape doesn't quite fit in the header band. We can remedy this by increasing the height of the band.

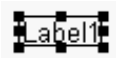
- Locate the ruler on the left side of the workspace.
- Place the mouse cursor over the divider (gray bar) labeled "Header". The mouse cursor will change to an up/down arrow, indicating that you can drag the divider up and down.
- Hold down the left mouse button and drag the divider up and down. Notice the two little lines that appear on the vertical ruler to the left of the divider. These lines are called guides because they represent the new position of the divider.
- Increase the height of the header band by dragging the divider until the guide reaches the one inch mark on the vertical ruler. In order to do this you must first drag the divider until the band height is greater than one inch. Then release and drag the divider up until the top guide hits the one inch mark.

**Note**: *This method of changing the size of the header band works for all bands.*

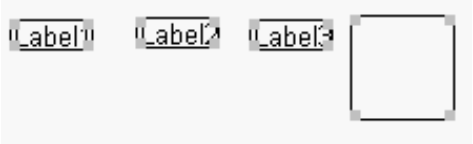
**BASIC COMPONENT SELECTION**

Once components are created, the real work begins, for each component needs to be carefully positioned in order to create a high-quality report.

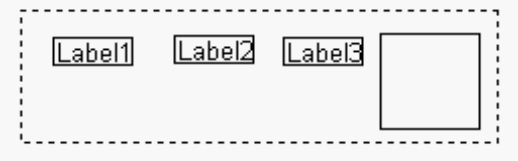
- Select the Label1 component by clicking on it. The selected label should look like this:




- Select the remaining components. To do this, hold down the <Shift> key and then click on the Label2, Lable3, and Shape components. All of the components should now be selected. You can tell that they are selected by the small gray boxes surrounding each component. These boxes are called *selection handles*.




- Click anywhere on the white space in the header band. Notice that the components are deselected.
- Click on the white space to the left of the first label, hold down the left mouse button, and begin dragging the mouse down. A dashed-line rectangle will be drawn from the point you first pressed the mouse button and will change size and shape as you drag. This rectangle is called a *bounding box*.




- Drag the mouse across the band until the bounding box encloses all four of the components, then release the button. All of the components within the box will be selected.
- Place the mouse cursor over one of the components and drag in any direction. Notice how all of the components move in unison. This is called a component selection.

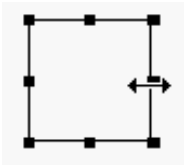
**Note**: *These are the two methods you can use to select multiple components: the shift-click method (hold down the <Shift> key and click the components) and the bounding box method (hold down the mouse button and outline the components).*

**SIZING, ALIGNING, AND POSITIONING COMPONENTS**

In order to get all of the components lined up neatly or sized correctly, you must know how to size and align with dexterity.

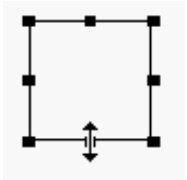
**Sizing**

- Deselect all components by clicking anywhere in the white space of the header band.
- Select the shape component in the header band.
- Place the mouse cursor over the little black box on the right side of the Shape component and wait until the cursor changes to a left/right arrow. The little black boxes that surround the shape are called *sizing handles*.

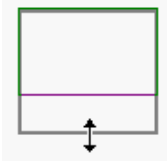


- Drag the cursor to the right and notice how the Shape gets wider.

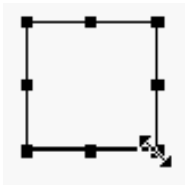
- Place the mouse cursor over the sizing handle on the bottom of the shape and wait for the cursor to change to an up/down arrow.



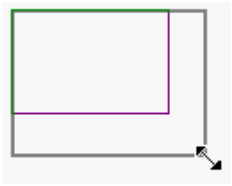
- Drag the cursor down and notice how the Shape gets taller.



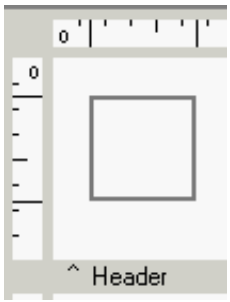
- Place the mouse cursor over the sizing handle on the right-hand corner of the Shape and wait for the cursor to change to a diagonal arrow.



- Drag the cursor. The Shape gets both wider and taller.



- Drag the Shape to the left the corner of the header band.
- Move the shape up and down in the header band. Notice the guides on the vertical and horizontal rulers. Whenever you are dragging or sizing, the guides show you the position and size of the selection.

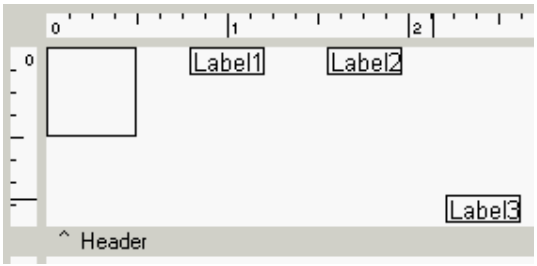



- Use the guides to set the Shape to ½ inch by ½ inch. The guides should match up with the ½ inch mark on both the horizontal and vertical rulers.

**Note**: *You can also adjust the size of a component by selecting the component, then holding down the <Shift> key and pressing the arrow keys. You can use this method to size single and multiple component selections.*

**Aligning**

- Select the Shape component in the header band.
- Hold down the <Shift> key and then click on the three Label components. All four components should now be selected.
- Click the Align Top button in the toolbar. The Labels should align with the Shape.
- Move Label3 to the bottom of the header band.




- Select Label3 and shift-click the other components in order to add them to the selection.
- Click the Align Bottom button . The components should align with Label3.

**Note**: *The first component selected in a multi-select is the one to which the others align.*

**Positioning**

- Deselect the components by clicking in the header band white space.
- Select the Shape component.
- Hold down the <Ctrl> key and press the up arrow key several times to move the component.
- As you move the Shape using this method, look at the status bar in the lower right-hand corner of the Report Designer. The Top measurement should track with the component's location.


- Use the right arrow key to move the Shape component to the right. The Left measurement should track with the component's location.
- Position the Shape component so that Left is 0 and Top is 0.0625
- Deselect the Shape component.
- Use the shift-click method to select the Label components.
- Using the arrow keys, position the selection at Left = 1.3021 and Top = 0.3854.

**FRONT-TO-BACK ORDER**

This section illustrates how a component can be used as a background for other components.

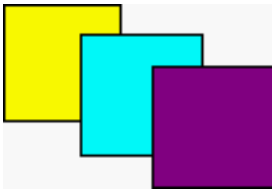
**Task 1: Create and Color Shapes**

- Create two more Shape components near the existing one in the header band.
- Select the first Shape component.
- Locate the Fill Color button  in the toolbar.
- Click the down arrow to the right of the button. The Fill Color palette will be displayed. Select yellow.

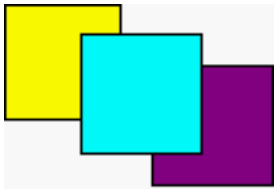

- Select the second shape.
- Set the color to aqua.
- Select the third shape.
- Set the color to purple.

**Task 2 : Overlap shapes and establish their order.**

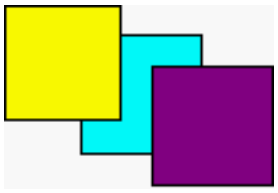
- Position the aqua Shape component so that its corner overlaps the corner of the yellow one.
- Position the purple Shape component so that its corner overlaps the corner of the aqua one. The three shapes should look like this:



- Select the Preview tab. Notice that the shapes retain their front-to-back ordering.
- Return to the design workspace and right-click over the purple Shape component.
- Select the Send to Back menu option. Notice how the purple shape is now behind the aqua shape.



- Right-click over the purple Shape component.
- Select the Bring to Front menu option. The purple shape is once again in front of the aqua shape.
- Right-click over the yellow shape.
- Select the Bring to Front menu option. The yellow shape is now in front of the other two shapes.



- Restore the original order of the shapes by deciding which shape needs to be sent to the back or brought to the front. (Answer: Send the yellow shape to the back.)

**Task 3: Use a shape as a background**

- Right-click over the yellow shape.
- Select the ParentHeight menu option. The shape's height increases to match the band's height.
- Select ParentWidth. The shape's width increases to match the band's width. The other components appear in front of the shape because of the front-to-back order.
- Right-click over the yellow shape.
- Select the Bring to Front menu option. Notice how all of the components disappear from view.
- Make the components reappear by right-clicking over the yellow shape and selecting the Send to Back menu option.

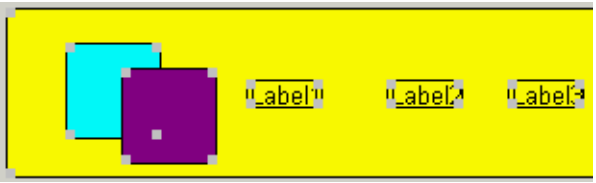
**Note**: *Whenever you appear to have lost a component, try using the Send to Back method in order to find it. It may be behind another component.*

**ADVANCED COMPONENT SELECTION**

This section explains how to select components in the foreground when you have a larger component in the background.

- Try to select all of the components in the header band by clicking to the left of the first component, holding down the left mouse button, and dragging the mouse (i.e. the bounding box method). Notice how the components cannot be selected. This is because the yellow shape, which is sized to fill the entire header band, is selected and no bounding box can be drawn.
- Hold down the <Ctrl> key and try to select the components using the bounding-box method again. When the <Ctrl> key is held down, you will see a bounding box.


- Expand the bounding box to encompass all of the components and release the mouse button. All of the components, including the yellow shape, should be selected.



- Try to move the selected components. Notice how they appear to be locked in place. The selection cannot be moved because the yellow shape fills the band and has no where to go.
- Hold down the <Shift> key and click the yellow shape.

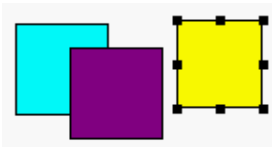
**Note**: *You can use the shift-click method to deselect any component that is part of a multi-selection.*

- Move the selected components. The components can be moved now because the yellow shape is deselected.
- Try to deselect the components by clicking on Label1. Nothing happens. That's because you must select an unselected component or click in the white space of a band in order to clear the current selection.
- Deselect the components by clicking on the yellow shape.

**ADVANCED SIZING**

When you have a shape stretched using ParentWidth and ParentHeight, you cannot change the size via the sizing handles. This exercise shows you how to resize such a shape.

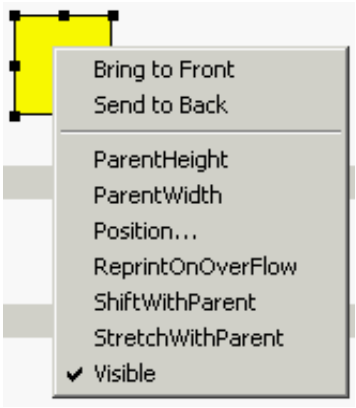
- Place the mouse cursor over the sizing handle on the left side of the yellow shape. The left/right arrow will be displayed.
- Try to reduce the size of the shape by dragging the cursor toward the center of the header band. The shape can't be modified because it is set to ParentWidth.
- Right-click over the shape.
- Select ParentWidth. The ParentWidth menu option is deselected. Now the shape's width can be modified using the sizing handle.
- Select ParentHeight. The ParentHeight menu option is deselected. Now the shape's height can be modified using the sizing handles.
- Use the sizing handles to modify the yellow shape so that it is about the same size as the other shapes.



**Note**: *You may not be able to resize the shape so that it is exactly the same size as the others. The next section will address this issue by showing you a more precise way to resize shapes.*

**COMPONENT OPTION MENU**

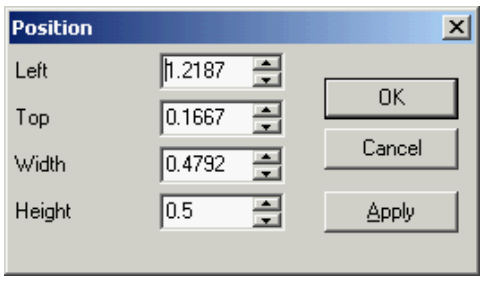
The component option menu appears when you right-click over a component. It offers different options for altering the overall look of your component via changes in shape, size, and visibility. The component option menu for a Shape is shown below.




So far, the tutorials have introduced the following menu options: Bring to Front, Send to Back, ParentHeight, and ParentWidth. Next, we'll learn about the Position... option, which allows you to control the size and position of components more precisely.

**Task 1: Set shape sizes**

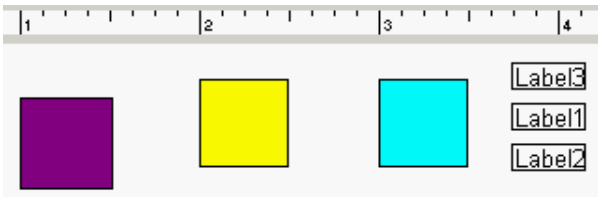
- Select the labels and move them to the left until they reach a left of 3.7396 as indicated by the status bar.
- Access the component option menu by right-clicking over the yellow shape.
- Select Position... . A dialog box like the one below will be displayed; however, the numbers may be slightly different from these. That's fine.




- Set Left to 2.0, Top to 0.2, Width to 0.5, and Height to 0.5.
- Click OK to close the Position dialog.

**Task 2: Resize the aqua shape**

- Right-click over the aqua shape to access the component option menu, then select Position... .
- Set Left to 3.0, Top to 0.2, Width to 0.5, and Height to 0.5. The aqua shape should now be the same size as the yellow shape.
- Select Position... for the purple shape, then set Left to 1.0 and Top to 0.3. The layout should look similar to the following:

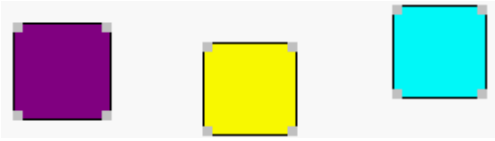



**Note**: *The component option menu applies only to the component over which you have right clicked, regardless of the selection. Task 3 will illustrate this.*

**Task 3: Component properties and the option menu.**

- Select the aqua shape.
- Shift-click the other two shapes in order to add them to the selection.
- Right-click over the aqua shape.
- Select Position..., set Top to 0.1 then click OK. Notice that even though the other shapes are selected, the aqua shape is the only component that moves. That's because the aqua shape was the one over which we right-clicked.

- Right-click over the purple shape.
- Select Position... and set Top to 0.2.
- Right-click over the yellow shape.
- Select Position... and set Top to 0.3. The shapes should now look like this:

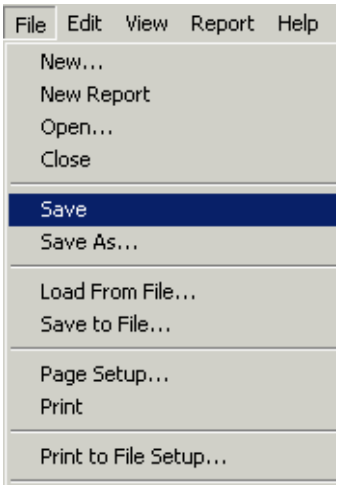


- Right-click once again over the aqua shape and set the Top position to 0.0.
- Click the Align Top button  . All shapes should align with the top of the aqua shape because it was selected first.

**Note**: *You can use this method whenever you need to set the size or position of several components to the same value.*

Task 4: Save your work

- Select [File|Save] from the main menu.




- Close the Report Designer.

**DATA TREE**

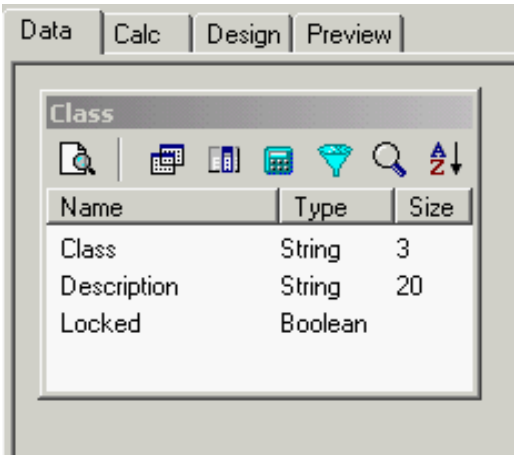
The Data Tree allows you to build a report based on data you have selected from the database. In order to use the Data Tree, you must first select data by creating a *dataset*.

**Task 1: Create a new report**

- Start AeroLog Pro and click the Custom Reports button.
- Click the New Report button  in the navigator bar. The Report Designer will appear with the design workspace active.
- Click on the Data tab.
- Select [File|New] to access the New Items dialog.
- Double-click on the Query Wizard icon.

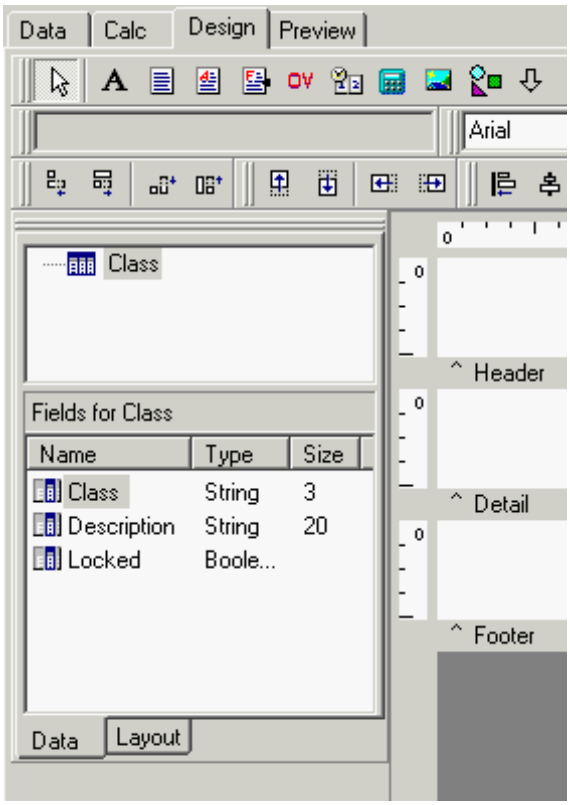
**Task 2: Create a Dataset via the Query Wizard**

- Choose the Class table by double-clicking on it. The Class table should now appear in the Selected Tables list.
- Click the Next button six times until you reach the screen with the checkered racing flag.
- Click on "Preview the query", then click Finish. A preview data screen with the information from the database should appear.
- When you're finished looking at the preview data screen, click OK.
- You'll notice a new window in the upper left-hand corner of the data workspace. This is the new *dataset* It represents the data that will be selected from the database each time the report is generated. In a later exercise, we will show you how to make modifications to a *dataset*. For now, let's move on to building the report.



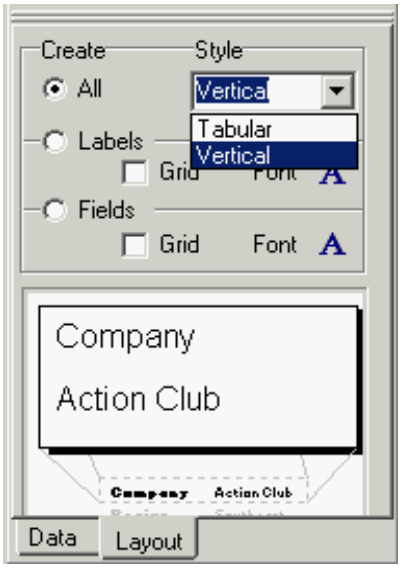

**Task 3: Dock the Data Tree**

- Click on the Design tab.
- Maximize the Report Designer window.
- Select [View|Toolbars|Data Tree] from the menu.
- Click on the title bar of the Data Tree and drag it to the left, making sure that the toolbar is below the horizontal ruler. Continue dragging until the mouse pointer is in the left margin of the designer window, and the position rectangle changes froma heavy outline to a thin dotted one.
- Release the mouse button. The Data Tree should dock on the left of the workspace as shown in the figure below.

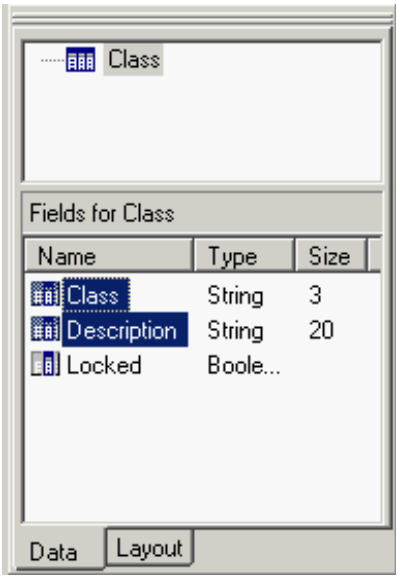



**Task 4: Create a vertical report**

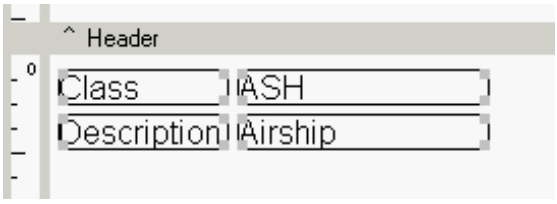
- Click on the Layout tab at the bottom of the Data Tree.
- Pull down the Style control and select "Vertical".




- Click on the Data tab at the bottom of the Data Tree.
- Click the "Class" field.
- Hold down the <Ctrl> key and click the "Description" field. Your selection should look like this:




- Locate the divider labeled "Detail" on the canvas of the design workspace.
- Place the mouse cursor over the divider. The cursor will change to an up/down arrow.
- Increase the height of the detail band to 1 inch by dragging the divider down and referring the vertical ruler to the left.
- Position the mouse cursor over the "Class" field in the Data Tree and drag the selection into the detail band.
- Release the mouse button. The components necessary to display the "Class" and "Description" fields in the report are created.

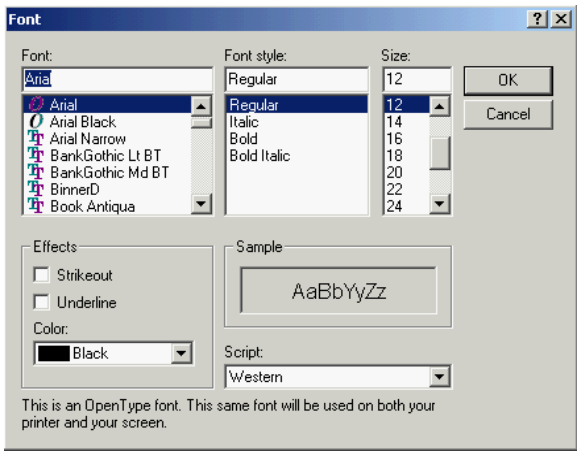



- Click on the Preview tab. Notice how the labels repeat for each row of the data. This is called a vertical report because the components are laid out in a top-to-bottom fashion.

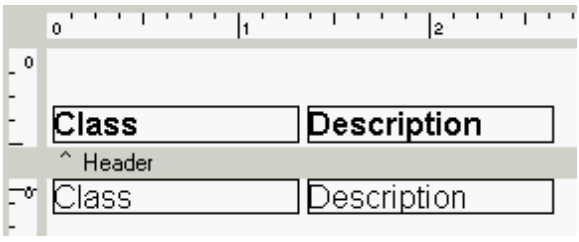
**Task 5: Create a tabular report**

- Return to the design workspace.
- Select all of the components and press the <Delete> key.
- Click on the Layout tab at the bottom of the Data Tree.
- Select the "Tabular" style.

- Click on the Font button  in the Labels section. The Font dialog box will appear.



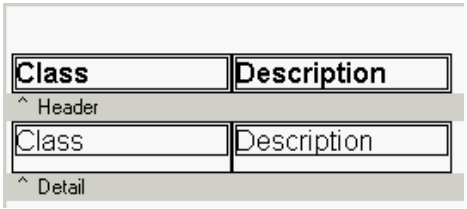

- Make the Font style Bold. Now any label created via the Data Tree will be bold.
- Click the OK button on the Font dialog. Notice how the diagram at the top of the Data Tree reflects the change by bolding the word "Company".
- Click on the Data tab at the bottom of the Data Tree.
- Verify that both the "Class" and the "Description" fields are selected. If not, select them – "Class" field first, then "Description".
- Position the mouse cursor over the "Class" field in the Data Tree and drag the selection into the lower left corner of the header band.
- Release the mouse button. The components necessary to display the "Class" and "Description" fields are created. The Label components are added to the header band and the DBText components to the detail band.



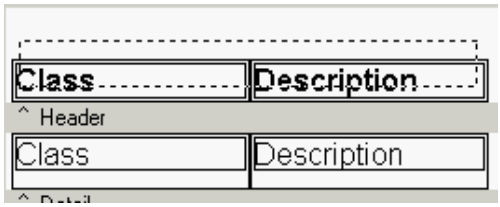

- Click on the Preview tab. Notice how the labels appear only once at the top of the page. This report is "tabular" because the data is laid out in a left-to-right fashion.

**Task 6: Create a tabular report with a grid**

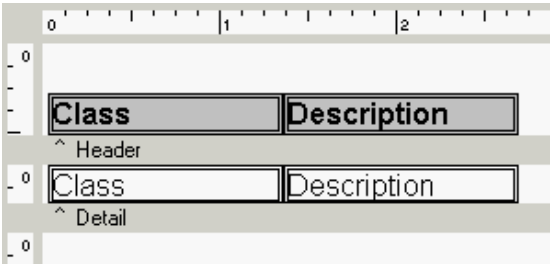
- Return to the design workspace and delete all of the components.
- Click on the Layout tab at the bottom of the Data Tree.
- Click the Grid check box for both Labels and Fields.
- Click on the Data tab at the bottom of the Data Tree.
- Verify that both the "Class" and the "Description" fields are selected. If not, select them – "Class" field first, then "Description".
- Position the mouse cursor over the "Class" field in the Data Tree and drag the selection into the lower left corner of the header band.
- Release the mouse button. Notice the boxes around the components. These shapes will give us the effect of a grid.



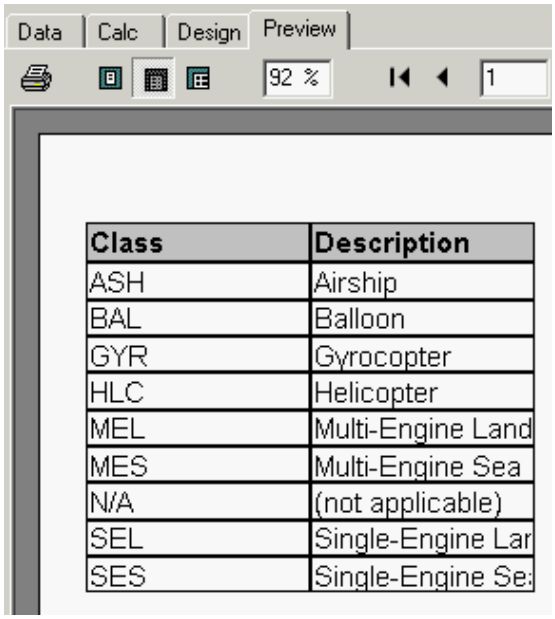

- Use the bounding box method to select all of the components in the header band.




- Remove the labels from the selection by holding down the <Shift> key and clicking on each label. Only the shapes should now be selected.
- Locate the Fill Color button  on the toolbar and select Light Gray.
- Drag the divider labeled "Detail" up until it meets the bottom of the components in the detail band.




- Click on the Preview tab. Notice the grid effect.



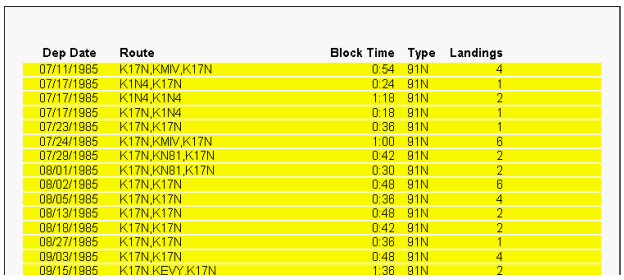

- Save the report as Cal-2 and close the Report Designer.

# Summary Tutorial

**OVERVIEW**

This tutorial will solidify all of the report-building techniques you learned in Calisthenics. The final report for this tutorial should contain a list of flights including:

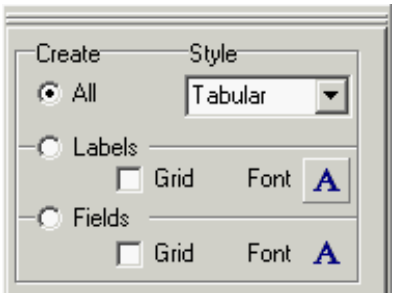
- The departure date,
- the route (From, To & Via),
- the flight duration (block-time),
- the type-of-time, and
- the number of landings.



| Dep Date | Route | Block Time | Type | Landings |
|---|---|---|---|---|
| 07/11/1985 | K17N,KMIV,K17N | 0:54 | 91N | 4 |
| 07/17/1985 | K1N4,K17N | 0:24 | 91N | 1 |
| 07/17/1985 | K1N4,K1N4 | 1:18 | 91N | 2 |
| 07/17/1985 | K17N,K1N4 | 0:18 | 91N | 1 |
| 07/23/1985 | K17N,K17N | 0:36 | 91N | 1 |
| 07/24/1985 | K17N,KMIV,K17N | 1:00 | 91N | 6 |
| 07/29/1985 | K17N,KN81,K17N | 0:42 | 91N | 2 |
| 08/01/1985 | K17N,KN81,K17N | 0:30 | 91N | 2 |
| 08/02/1985 | K17N,K17N | 0:48 | 91N | 6 |
| 08/05/1985 | K17N,K17N | 0:36 | 91N | 4 |
| 08/13/1985 | K17N,K17N | 0:48 | 91N | 2 |
| 08/18/1985 | K17N,K17N | 0:42 | 91N | 2 |
| 08/27/1985 | K17N,K17N | 0:36 | 91N | 1 |
| 09/03/1985 | K17N,K17N | 0:48 | 91N | 4 |
| 09/15/1985 | K17N,KEVY,K17N | 1:36 | 91N | 2 |

**QUERY WIZARD**

- Start AeroLog Pro and click the Custom Reports button.
- Click the New Report button in the navigator bar.
- Click on the Data tab.
- Select [File|New] from the menu.
- Double-click on the Query Wizard icon. The Query Wizard will come up with a list of Available Tables.
- Choose the PilotLog table by double-clicking on it. Confirm your selection by verifying that the table name appears in the Selected Tables list.
- Click the Next button. Keep clicking Next until you reach the Set Order page.
- Click on the Set Order button.
- Double-click on PilotLog.Dep_Date so it appears in the Selected Fields list.
- Click Next. A screen with a checkered racing flag will appear.
- Select the Preview radio button near the bottom, then click Finish. A Data Preview screen will appear listing information from the PilotLog table.
- Click OK.




- Select the Design tab.

**DESIGN WORKSPACE**

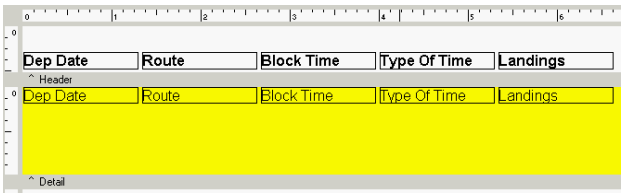
**Task 1: Set the Data Tree properties**

- If it is not already visible, launch the Data Tree toolbar.
- Dock it on the left side of the workspace.
- Click the Layout tab of the Data Tree.
- Set the Style to "Tabular", and deselect the Grid boxes if they are checked.
- Click the Font button in the Labels section and set it to Arial, Bold, 10.
- Click the Font button in the Fields section and set it to Arial, Regular, 10.
- Click on the Data tab of the Data Tree.
- Press <Ctrl-S> to save your work. Save the report as "Summary Tutorial". Repeat the save after completing each task.

**Task 2: Create the components**

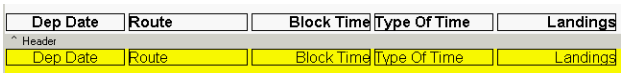
- Place the mouse cursor over the "Detail" divider and drag it down until the detail band is 1-inch high.
- Place a Shape component in the detail band.
- Set the shape's fill color to yellow, and line color to white.
- Right-click over the shape and select ParentHeight
- and ParentWidth.
- Hold down the <Ctrl> key while you select the "Dep Date", "Route", ""Block Time", "Type of Time" and "Landings" fields (the order matters) in the Data Tree.
- Drag the selection from the Data Tree into the lower left corner of the header band and release the mouse button. Label components will be created in the

header band and DBText components in the detail band.

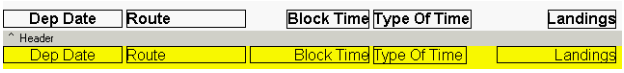



**Task 3: Position, size and align components**

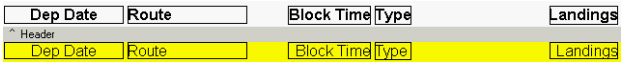
- Select both the "Dep Date" Label and the "Dep Date" DBText components.
- Click on the Center Justify button  .
- Deselect all components by clicking in the footer band.
- Select the "Block Time" Label, "Block Time" DBText, "Landings" Label, and "Landings" DBText.
- Click on the Right Justify button  .




- Right-click over the "Block Time" label and select AutoSize.
- Set AutoSize for the "Type of Time" and "Landings" labels.

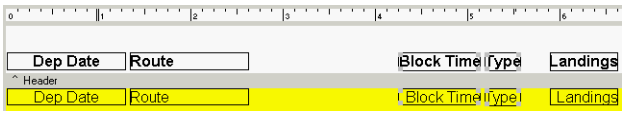



- Change the "Type Of Time" label caption to "Type".
- Select the "Block Time" label, then shift-click and select the "Block Time" DBText.
- Click the Shrink Width to Smallest button  . The DBText width should now match the label above.
- Click the Align Left button  to align the two components vertically.
- Shrink the "Type Of Time" DBText component to match the width of the label above.
- Shrink and align the "Landings" DBText component to match the width and position of the label above.

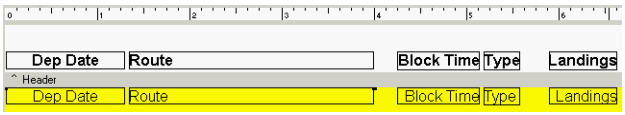



- Select the "Block Time" Label, "Block Time" DBText, "Type" Label, and "Type Of Time" DBText.
- Drag the selection to the right until the left guide is at the 4.25" mark on the horizontal ruler above.

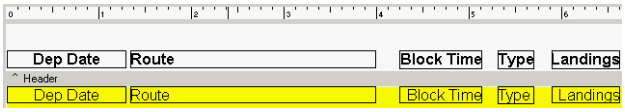
- Select the "Route" label then resize it by dragging the right edge to the right until the guide reaches the 4" mark.




- Shift click on the "Route" DBText then click the Grow Width To Largest button  . The DBText should expand to match the width of the label.




- Select the "Type" Label and the "Type of Time" DBText components.
- Hold down the <Ctrl> key and tap the right arrow key until the components are approximately centered between the Block Time and the Landings columns.



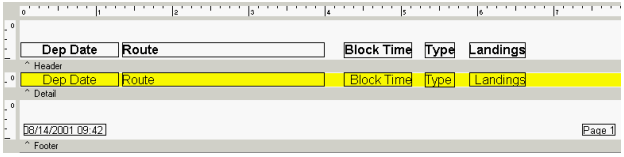

**Task 4: Set display formats and size detail band**

- Right-click over the "Block Time" DBText and select ElapsedTimeFormat
- Drag the detail band divider up until it meets the bottom of the components.

**Task 6: Lay out the Footer band**

- Click the System Variable button  .
- Click the lower left side of the footer band to create the new System Variable component.
- Select "PrintDateTime" from the drop-down list box in the upper left corner of the workspace. The date and time should appear in the component.
- Place another System Variable component in the lower right side of the footer band.

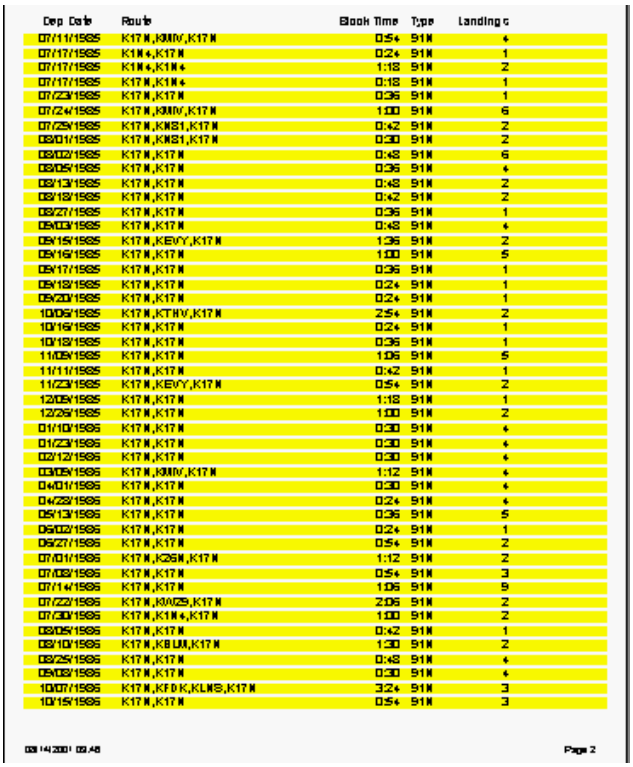
- Select “PageNoDesc” (Page Number Description) from the drop-down list box. The page number should appear in the component.
- Right justify the page number system variable by clicking the right-justify button  .
- Align the tops of the system variables.




- Press <Ctrl-S> to save your work.

**PREVIEW**

- Click on the Preview tab and look at your report. It should look this:




- Close the Report Designer, saving the changes to the report.

# Cover Page

**OVERVIEW**

This tutorial shows you how to create a cover page for a report. The final product will contain the title of the report and a description of the contents of the report.

**DESIGN WORKSPACE**

**Task 1: Create and adjust the Title band**

- Open the Summary Tutorial report by selecting in the Custom Report Explorer window, then clicking the Open Report button  .
- Select [File|Save As] from the main menu of the Report Designer.
- Name the report "Cover Page" and click Save. The name at the top of the Report Designer should change to "Cover Page".
- Hide the Data Tree if it is visible.
- Select [Report|Title] from the menu. A title band will appear at the top of the canvas.
- Increase the height of the title band by dragging the divider down until the guide reaches the 9 ½ inch mark on the vertical ruler.

**Task 2: Create a Shape and a Label**

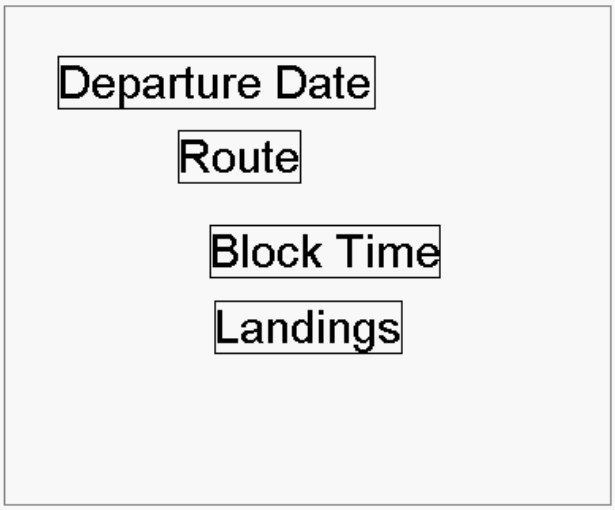
- Place a shape in the upper left corner of the title band.
- Set the position of the shape to: Left= 2.0, Top= 2.5, Width= 4.0 and Height= 1.
- Set the fill and line color of the shape to light gray.
- Place a label over the shape.
- Set the caption to "Flight Listing".
- Set the font size to 28.
- Set the justification to left .
- Select the shape and then shift-click the label.
- Click the Align Center button  and the Align Middle button  . The label should be centered in the middle of the shape like this:


**Task 3: Create and adjust a shape**

- Place a new shape below the existing shape. Set the position of the shape to: Left= 2.0, Top= 4.0, Width= 4.0 and Height= 3.3.
- Set the line color of the shape to dark gray.

**Task 4: Create and adjust labels**

- Create four labels and place them over the shape.
- Set the caption for each label as follows:
  Label7: "Departure Date"
  Label8: "Route"
  Label9: "Block Time"
  Label10: "Landings"
- Select the labels and set the font size to 22. The title page should look like this:




- Select the "Flight Listing" label and then shift-click the "Departure Date" label.
- Click the Align Middle button  .
- Set the top of the "Departure Date" label to 4.75.
- Set the top of the "Landings" label to 6.5.
- Select the "Departure Date" label and then shift-click the three labels below it.

- Click the Left Align button  and the Space Vertically button  . The selection should now look like this.


**PREVIEW**

- Click the Preview tab. The title page should look like this:


- Click the Next Page button to view the body of the report, which should be the same as the Summary Report from the last chapter.
- Close the Report Designer and save the changes.

# Simple Table Listing

**OVERVIEW**

This tutorial illustrates how to create a tabular flight listing which includes aircraft information linked-in (joined) from a separate database table. The resulting report will include:

- The aircraft ID ("N" number),
- The aircraft type,
- The departure date of the flight, and
- The duration of the flight (block time).

**QUERY WIZARD**

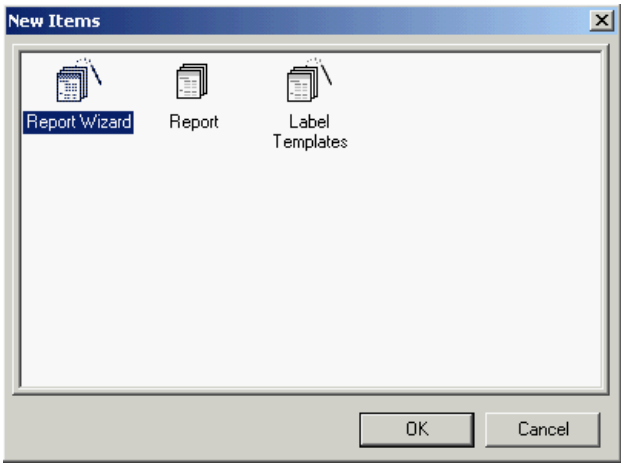
**Task 1: Create the Dataset**

- Create a new report.
- Select the Data workspace.
- Select [File|New...] then select the Query Wizard.
- Select (double-click on) the Aircraft table.
- Select the PilotLog table.
- Click Next until you reach the Set Order screen.
- Click "Set Order" and select Aircraft.Acft ID and PilotLog.Dep Date.
- Click Next and then Finish to complete the query.
- If the preview data screen appears, click OK to close it.
- Select the Design workspace.

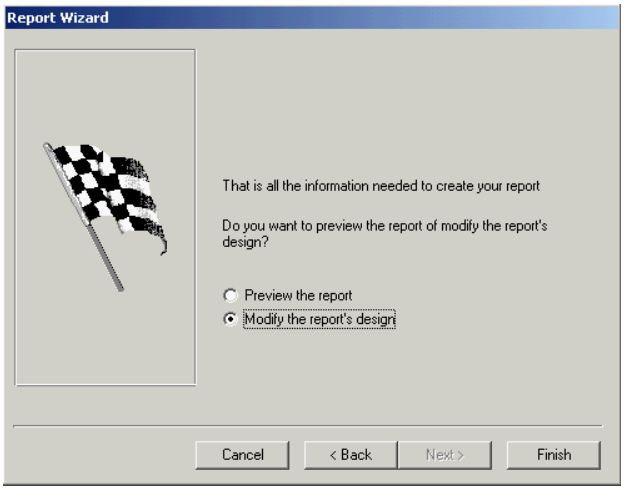
**DESIGN WORKSPACE**

**Task 1: Create a layout using the Report Wizard**

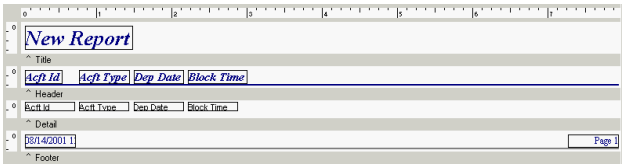
- Select [File|New...] then double-click the Report Wizard icon.




- Select the following fields by double-clicking: Acft ID, Acft Type, Dep Date and Block Time.
- Click Next until you see the screen with the checkered racing flag. Select "Modify the report's design".




- Click Finish. The report layout will appear.




- Press <Ctrl-S> and save the report as "Simple Table".

**Task 2: Fine tune the components**

- Right-click over the "New Report" label in the header band and select AutoSize.
- Select the "New Report" label and set the caption to "Flight Detail by Aircraft".
- Select the "Block Time" label and set the caption to "Duration".
- Shift-click the "Block Time" DBText then click the Right Justify button  .
- Right-click over the "Block Time" label and select AutoSize.
- Click the Shrink Width To Smallest button  and the Align Left button  .
- Right-click over the "Block Time" DBText then select ElapsedTimeFormat.
- Save the report then click the Preview tab.

**Flight Details by Aircraft**

| Acft Id | Acft Type | Dep Date | Duration |
|---|---|---|---|
| LINK | GND | 07/24/2001 | 1:12 |
| N67314 | CESSNA C-15 | 03/31/1991 | 74:00 |
| N79068 | CESSNA C-17 | 03/31/1991 | 129:00 |
| N5273V | CESSNA 172I | 03/31/1991 | 19:00 |
| N29877 | CESSNA C-20 | 03/31/1991 | 17:00 |
| N99330 | CESSNA C-20 | 03/31/1991 | 78:00 |
| N48157 | CESSNA C-2' | 03/31/1991 | 348:48 |
| N48157 | CESSNA C-2' | 09/30/1992 | 0:42 |
| N48157 | CESSNA C-2' | 10/09/1992 | 1:00 |
| N48157 | CESSNA C-2' | 10/15/1992 | 4:48 |
| N48157 | CESSNA C-2' | 09/22/1998 | 4:18 |
| N48157 | CESSNA C-2' | 09/24/1998 | 3:00 |
| N48157 | CESSNA C-2' | 09/25/1998 | 0:42 |

**Task 3: Layout corrections**

As you can see, there are a couple of problems. Notice that the Acft Type column is not wide enough to show the full aircraft type. Also, notice how the repetition in both the Acft ID and Acft Type columns. Let's fix these.

- Select the Design workspace.
- Select the "Dep Date" label, then shift-click the "Dep Date" DBText.
- Click the Nudge Right button  several times until the selected Label and DBText components are about 1/8 inch from the Duration column.
- Right-click over the "Acft Type" DBText, select Position... and set the Width to 0.8.
- Right-click over the "Acft ID" DBText and select SuppressRepeatedValues. Do the same for the "Acft Type" DBText.
- Click the Preview tab. The aircraft ID and aircraft type columns should no longer show repeated values.
- Click the Next Page button  a few times and notice that there is no aircraft ID or aircraft type on the first line of some pages. Because these columns do not repeat values it is difficult to tell the aircraft used for these flights without looking on the preceeding page(s). Fortunately this is easy to fix.

**Task 4: Additional corrections**

- Right-click over the "Acft ID" DBText component and select ReprintOnSubsequent.
- Right-click over the "Acft Type" DBText component and select ReprintOnSubsequent.
- Click the Preview tab.
- Click the Next Page button  a few times and notice that the aircraft ID and type are always shown on the first line of a new page.

**Task 5: Create a line guide**

- Notice that the ReprintOnSubsequent option creates a lot of white space, making it difficult to read.
- Return to the design workspace.
- Click on the Line button  .
- Click in the detail band to create the Line component.
- Right-click over the line and select ParentWidth. The line will stretch to match the width of the band.
- Right-click over the line, select Position... and set Top to 0.15.
- Save the report then click the Preview tab.

**Flight Details by Aircraft**

| Acft Id | Acft Type | Dep Date | Duration |
|---|---|---|---|
| LINK | GND | 07/24/2001 | 1:12 |
| N67314 | CESSNA C-152 | 03/31/1991 | 74:00 |
| N79068 | CESSNA C-172 | 03/31/1991 | 129:00 |
| N5273V | CESSNA 172RG | 03/31/1991 | 19:00 |
| N29877 | CESSNA C-207 | 03/31/1991 | 17:00 |
| N99330 | CESSNA C-206 | 03/31/1991 | 78:00 |
| N48157 | CESSNA C-210 | 03/31/1991 | 348:48 |
| | | 09/30/1992 | 0:42 |
| | | 10/09/1992 | 1:00 |
| | | 10/15/1992 | 4:48 |
| | | 09/22/1998 | 4:18 |
| | | 09/24/1998 | 3:00 |
| | | 09/25/1998 | 0:42 |
| NXXN | PITTS SPECL | 03/31/1991 | 6:00 |
| N8268H | PA-181-28 | 03/31/1991 | 61:00 |
| N36860 | CESSNA C-310 | 03/31/1991 | 13:00 |

- Close the Report Designer.

# Flights Grouped By Aircraft

**OVERVIEW**

This tutorial illustrates how to create a flight listing which is grouped and sub-totaled by aircraft. It also illustrates how to import and use a saved DataView.

The resulting report will include grouped listings of flights by aircraft ID. Each group will have a header area showing the aircraft ID, and a summary (footer) area showing the total number of flights and the total duration of the flights in that aircraft. Details for each group will include:

- The departure date of each flight,
- The route of each flight, and
- The duration of each flight (block time).

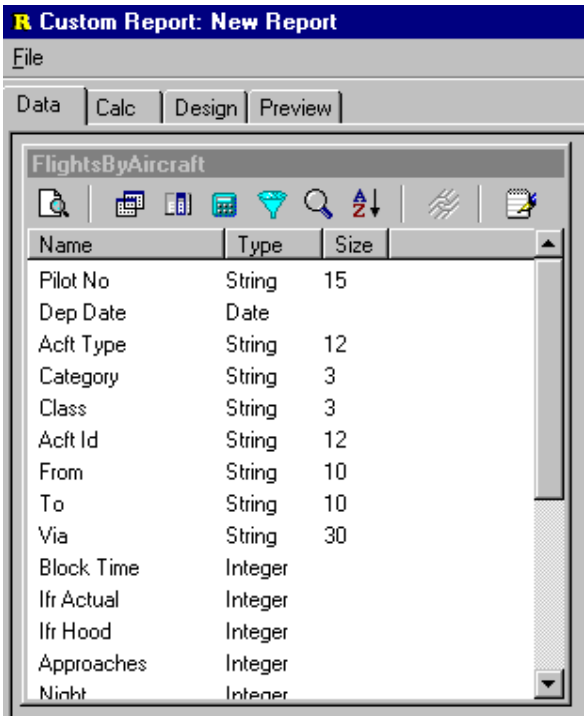
**DATA WORKSPACE**

As is often the case, several reports may have Datasets which are identical, or almost so. To save time and effort, the Report Designer allows you to save ("export") a Dataset as a separate entity (called a "DataView"), and then "import" it into the Data Workspace of another report.

In the previous tutorials, you use the Query Wizard to create the Dataset for each report from scratch. For this report, you will be importing a previously-saved Dataview called Flights By Aircraft.

**Task 1: Import the Dataview**

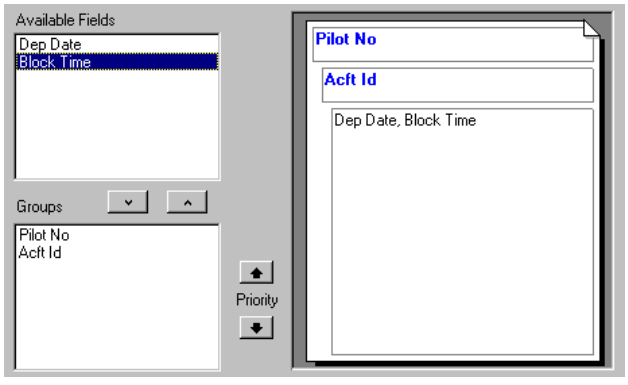
- Create a new report.
- Select the Data workspace.
- Select [File|Import...].
- Locate and open the Dataviews folder then select and open Flights By Aircraft. The Data workspace will appear as shown below.
- Select the Design workspace.




**DESIGN WORKSPACE**

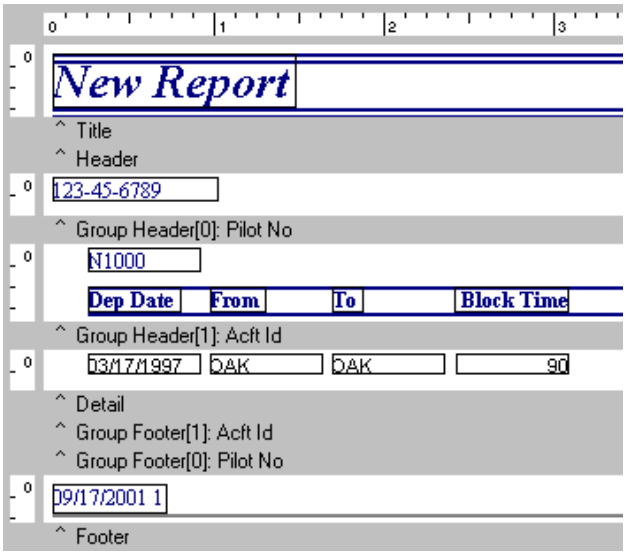
**Task 1: Create the layout using the Report Wizard**

- Select [File|New...] then double-click the Report Wizard icon.
- Select the following fields, in the order shown, for the report: Pilot No, Acft Id, Dep Date, From, To, and Block Time.
- Click the Next button.
- Select the Pilot No field as the first group, and the Acft ID field as the second group.




- Click the Next button.
- Select the "Outline 1" Layout, then click the Next button.
- Select the "Corporate" Style, then click the Next button.

- Select “Modify the report’s design” then click the Finish button. The layout should appears as shown below.

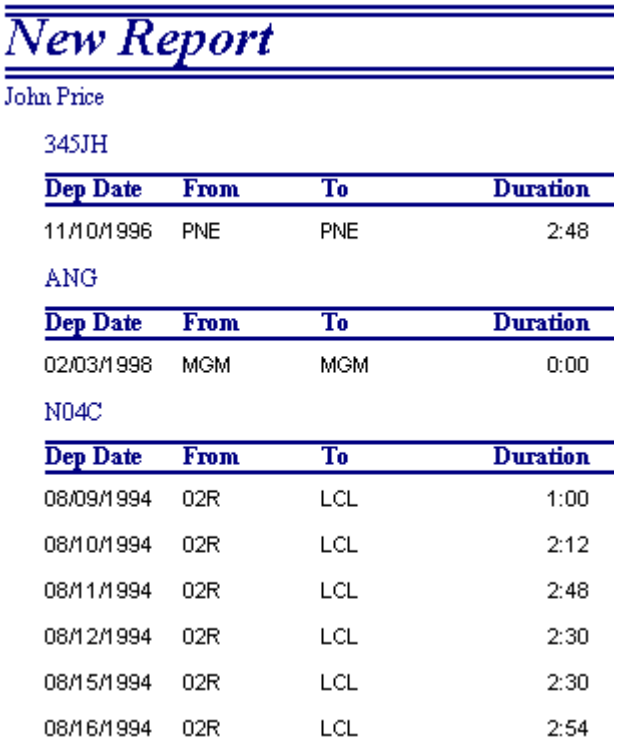



- Save the report, changing the name to “Flights Grouped by Aircraft.”

**Task 2: Clean up the layout.**

A couple of minor adjustments are needed before this report is complete.

- Select the Pilot_No component in the Group Header[0] band.
- In the Edit Toolbar, change the field name from “Pilot No” to “Name”.
- Change the “Block Time” Label in the Group Header[1] band to “Duration.”
- Select the Block Time component in the Detail band then click Right-Justify 
- Right-click on the Block Time component, then select “Elapsed Time Format” from the menu.
- Save the report layout, then click the Preview tab.



# New Report

John Price

345JH

| Dep Date | From | To | Duration |
|---|---|---|---|
| 11/10/1996 | PNE | PNE | 2:48 |

ANG

| Dep Date | From | To | Duration |
|---|---|---|---|
| 02/03/1998 | MGM | MGM | 0:00 |

N04C

| Dep Date | From | To | Duration |
|---|---|---|---|
| 08/09/1994 | 02R | LCL | 1:00 |
| 08/10/1994 | 02R | LCL | 2:12 |
| 08/11/1994 | 02R | LCL | 2:48 |
| 08/12/1994 | 02R | LCL | 2:30 |
| 08/15/1994 | 02R | LCL | 2:30 |
| 08/16/1994 | 02R | LCL | 2:54 |