Report Designer Guide

Version 8 – January 2025

Phase25

Small Business Software Built with Enterprise DNA

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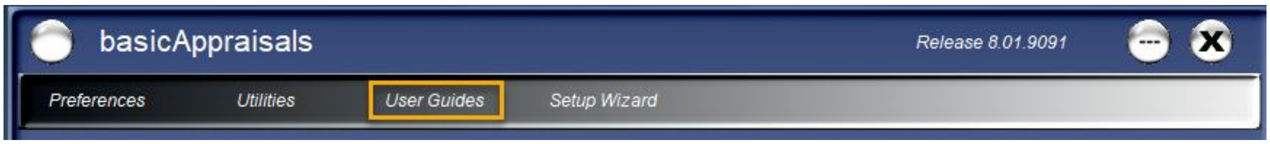
Report Designer Guide

Overview

This guide is a resource for users of all Phase25 software products, Version 8.x. Some of the screen prints in this guide display the forms from **basicAppraials**, but will look the same on any Phase25 applications.

For additional information, click on Main Menu >> User Guides to open our Support site. All user guides and video tutorials are FREE!



What is the Report Designer?

Many applications handle printing in one of two ways: They have some 'canned' reports, built into the system that cannot be edited by the user, or they require you use a third-party reporting program to create reports for printing and emailing.

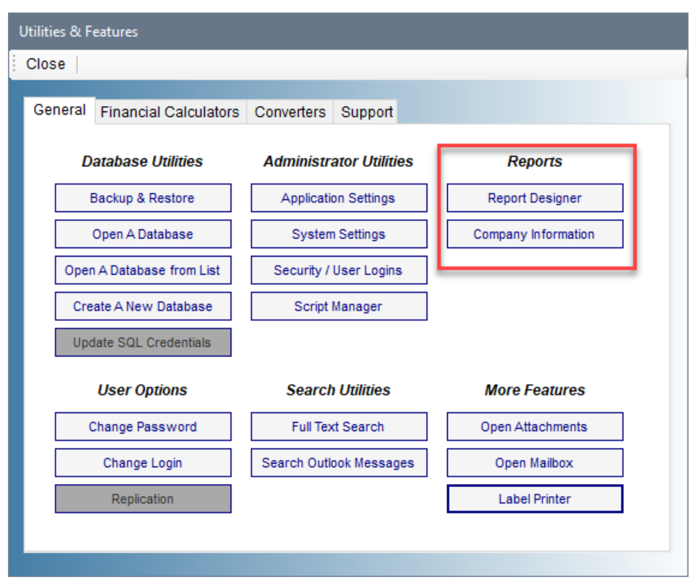
All of our applications incorporate a full-featured Report Designer that stores the print designs IN the current database, and which supports not only printing, but emailing and saving the results as PDFs or in multiple graphics formats. Each application comes with pre-defined report designs for each table in the system, but you can copy and modify them to suit your needs, or design new reports from scratch. All active Report Designs are displayed on the "Print" menu on the associated page divided into a single report (uses the current record on the screen), or summary reports (displays data from multiple records).

The "Reports" feature is made up of three parts: 1) Company Information, which includes YOUR company's contact information and logos that you want to use on reports; 2) the Report Designer, which is where you specify what data to pull into the report, where the report will be available from and additional custom settings for the overall report behavior; and, 3) the Layout Designer, which defines the layout of the report. This guide will discuss how to put all three of those pieces together to create all of the printing options you need.

The **Utilities** button on the Main Menu contains the links to the functionality described in this guide.

Main Menu >> Utilities >> Report Designer

Main Menu >> Utilities >> Company Information

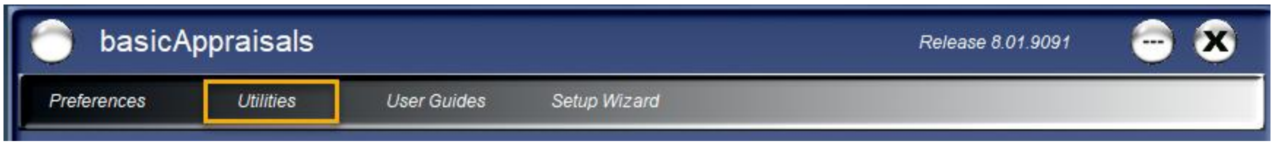


Company Information

The **Company Information** feature is where you store data for YOUR company such as name, address, phones, website, etc., and up to four logos (images), all of which the Report Designer can use to display on reports. You could enter this information manually on every Report Design, but if any of the data changes you would need to edit every Report Design record to change it. Entering it here means you only have one place to edit if you ever have changes.

The Report Designer, when printing, reads these options and applies them to each report based on the labels and picture boxes you place on the Report Layout.

Main Menu >> Utilities >> Company Information



TECH NOTE: All logos and company information data is stored in the System Settings table, which can be opened and edited manually by a System Administrator:

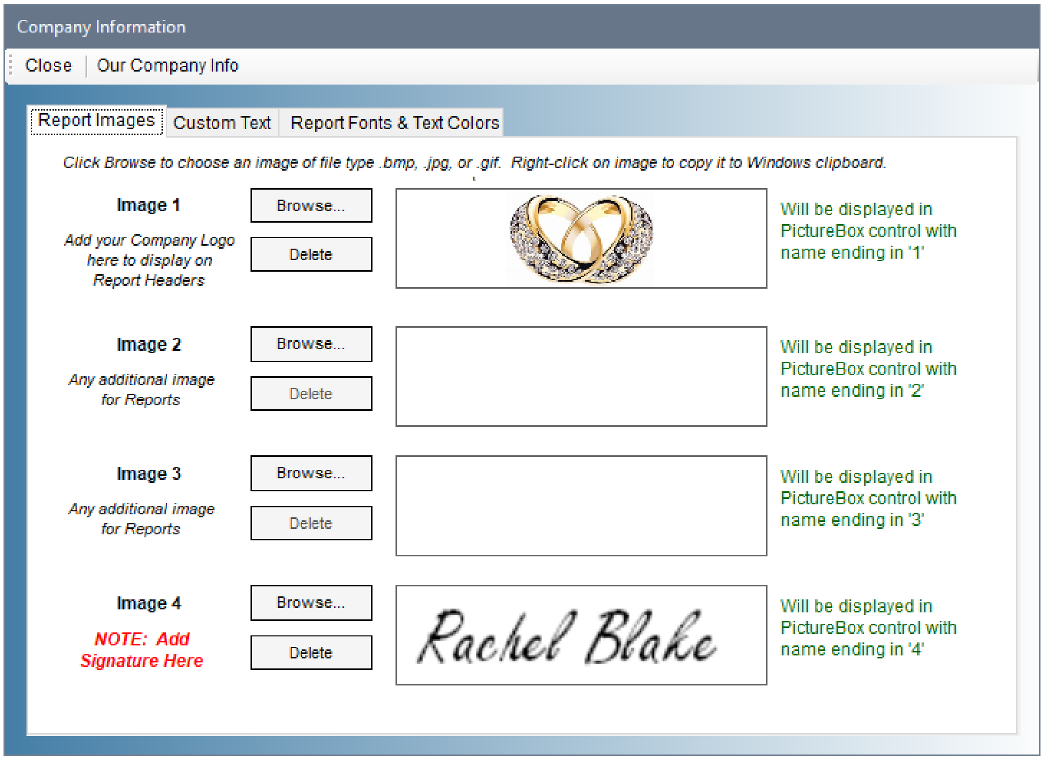
Main Menu >> Utilities >> System Settings

Report Images

You can add up to four images to use on Reports (NOTE: the default reports only use the first image on the header).

1. Click on the “Browse” button to choose each image.
2. You can delete an image by clicking the “Delete” button next to it.

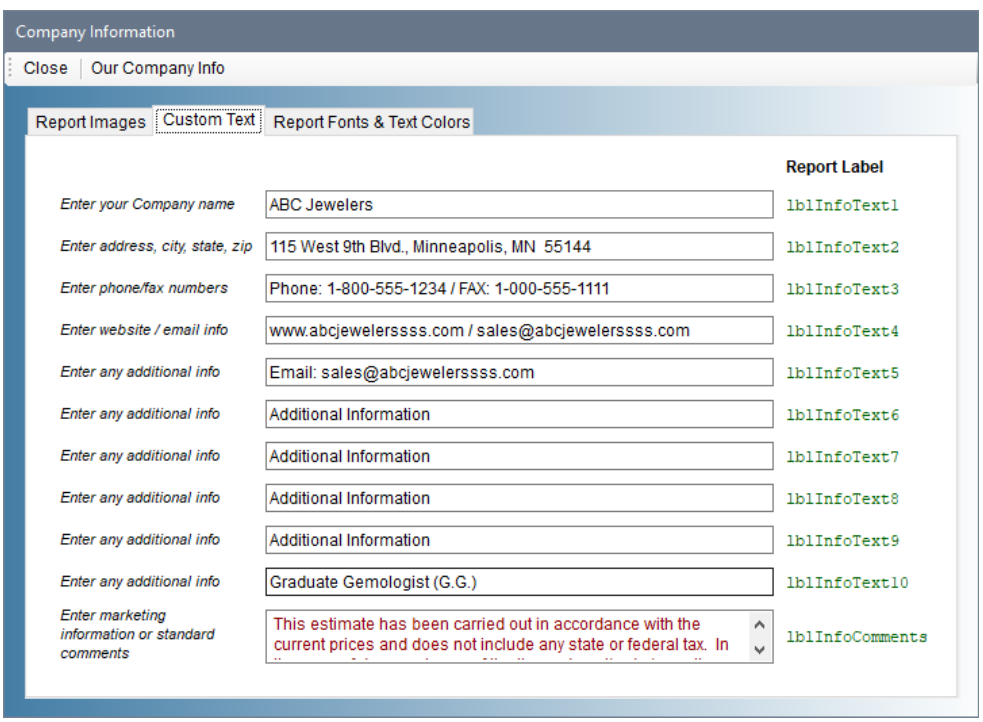
Note the message in green text next to each picture box; the image “Will be displayed in PictureBox control with name ending in <n>“... This functionality will be addressed in the **Layout Designer** section of this guide.



Custom Text

The second tab, "Custom Text" stores your business information, such as company name, address, phones, website address and email addresses.

You can enter any text in any of the fields, but keep in mind where it will be displayed on reports. You may have to shorten or rephrase text after previewing it on all reports.



Note the green text next to each textbox: These are the name of the Labels that need to be on the report in order to use this information. This functionality is addressed in the **Layout Designer** section of this guide.

Report Fonts & Text Colors

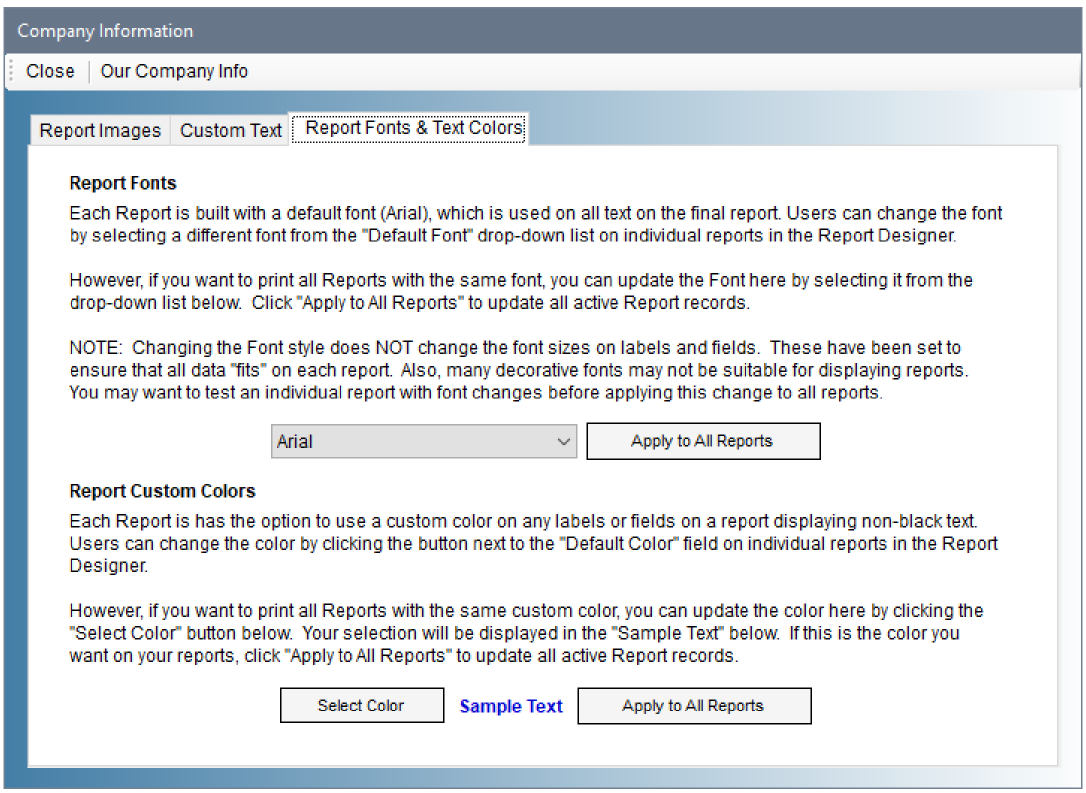
Report Fonts: Each Report is built with a default font (Arial), which is used on all text on the final report. Users can change the font for each report by selecting the font from the "Default Font" drop-down list in the Report Designer.

If you want to print all Reports with the same font, you can update the Font here by selecting it from the drop-down list below. Click "Apply to All Reports" to update all active Report Designer records.

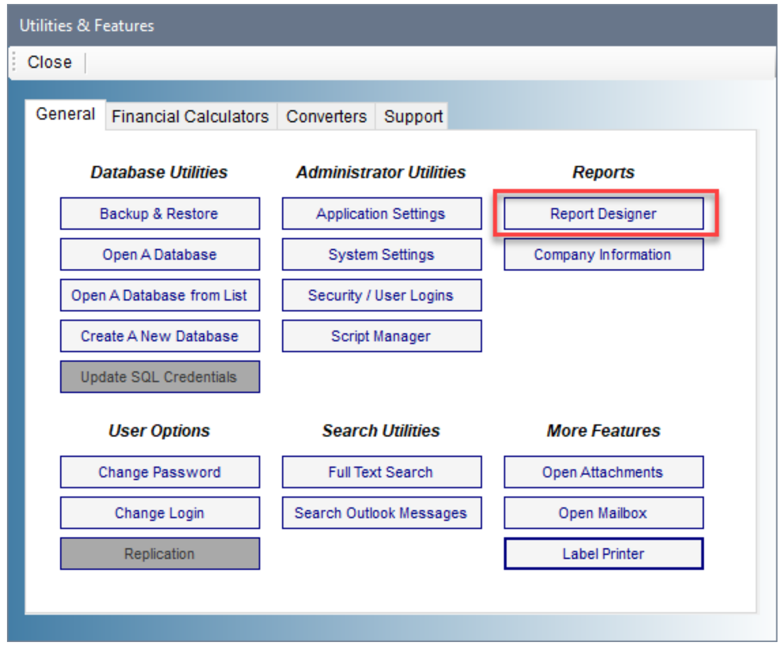
NOTE: Changing the Font style does NOT change the font **sizes** on labels and fields. These have been set to ensure that all data "fits" on each report.

Contrast Colors: Each Report is has the option to use a custom "contrast" color on any labels or fields on a report displaying non-black text. Users can change the color by clicking the button next to the "Default Color" field on individual reports in the Report Designer.

However, if you want to print all Reports with the same contrast color, you can update the color here by clicking the **Select Color** button below. Your selection will be displayed in the **Sample Text** below. If this is the color you want on your reports, click **Apply to All Reports** to update all active Report records.



The Report Designer



The Report Designer is where you will create, define and design all of the components of a finished report. This section will walk you through each step of the process by having you create a new report or copy an existing report for editing.

Main Menu >> Utilities >> Report Designer

Standard Report Templates

Every application has a standard set of Report Designs, and when you create a new database, they're copied to the new database so you don't have to start from scratch.

These default reports should never be edited or deleted. You can copy any one of them and edit it to make changes you want, and then you can edit the original and uncheck the "Active" checkbox at the top to remove them from their respective Print Menu (only "Active" reports are displayed on print menus).

System Reports

Some of the reports listed under "System_Settings" are not intended as Print Menu options on the System Settings page, but are used by other features in the system.

Chart Reports

All Reports where the selected Menu Table says "<Use to Print Charts>" are used by the chart dialog, and are displayed on the chart dialog's print menu. The chart dialog uses these reports differently than the standard report designs do… it has to display an image of the chart rather than data from a data query, so these reports are designed with that in mind. If you want to change the layout or design on any of these, make a copy of the report design and uncheck the **Record Is Active** checkbox on the original to remove it from the chart dialog's print menu.

Copy An Existing Report (Best Practice)

If you have a report that just needs 'tweaking', select it in the Navigator and then click the "Copy" button on the toolbar to make a copy of it. The Report Title will have "Copy of " in the title, which you can change (click **Edit**) to make it unique in the list of reports. If you're only making cosmetic changes you can click the **Options >> Open Layout Designer** button and skip to the **Layout Designer** section below for how to move labels and fields to change the look of the report. Keep in mind that the instructions from that point on are based on a different report than you're editing in the tutorial sample in the next section, but the principals are the same.

The next section is a tutorial that will show you how to build a simple report step-by-step.

Tutorial: Creating A New Report

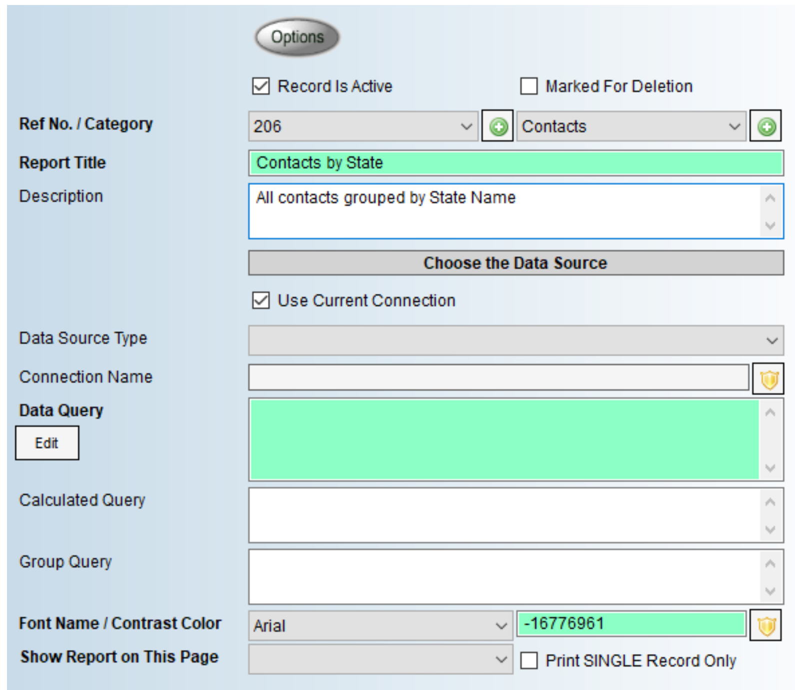
This section will walk you through each step for creating a simple report.

1. Click **New** on the Report Designer toolbar to create a new record.
2. Choose the **Category** which will define how the report is sorted in the Navigator. To add a new value, click the **Add (+)** button on the right side of the drop-down list and enter the text in the prompt.
3. Next enter the name of the report in the **Report Title** field which is is what users will see when they view the Print options, so make it simple and yet descriptive about what it does.
4. Add a short description in the **Description** textbox, which is NOT visible to users, but can contain information such as who requested the report and the general purpose of it.

A. Choosing the Data Source

1. Some reports can be designed using data from another source. For example, you may have a legacy application that is no longer used, but the database for it still contains data you may need.   1. If that is the case uncheck the **Use Current Connection** checkbox and follow the steps in the section called **Using An External Data Source (**below) to choose another database or spreadsheet for reading the data.
2. For our tutorial, however, we'll check the **Use Current Connection** option so we can build a report from the Contacts & Customers data.

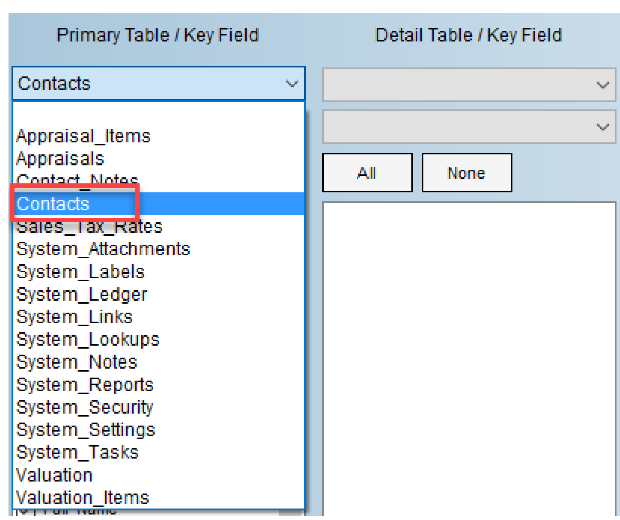
The Report Designer form should look like this:



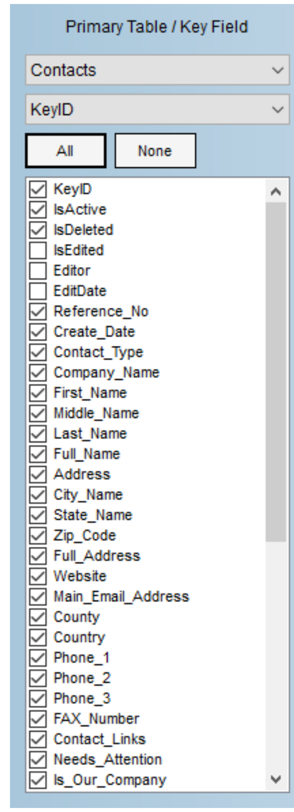
B. Creating the Data Query

The Data Query is the script that reads the data you need for the report.

1. Click the **Edit** button on the side of the **Data Query** field to open the Query Editor.
2. There are two lists of tables in the database that you can select from. If you're creating a report for Contacts, for example, and want to include the Contact Notes that belong to each of them, you would select **Contacts** from the **Primary Table** list, and **Contact_Notes** from the **Detail Table** list. The Key Fields would be automatically linked (Contacts Key = "KeyID" and Contact Notes Key = "Contacts_KeyID").

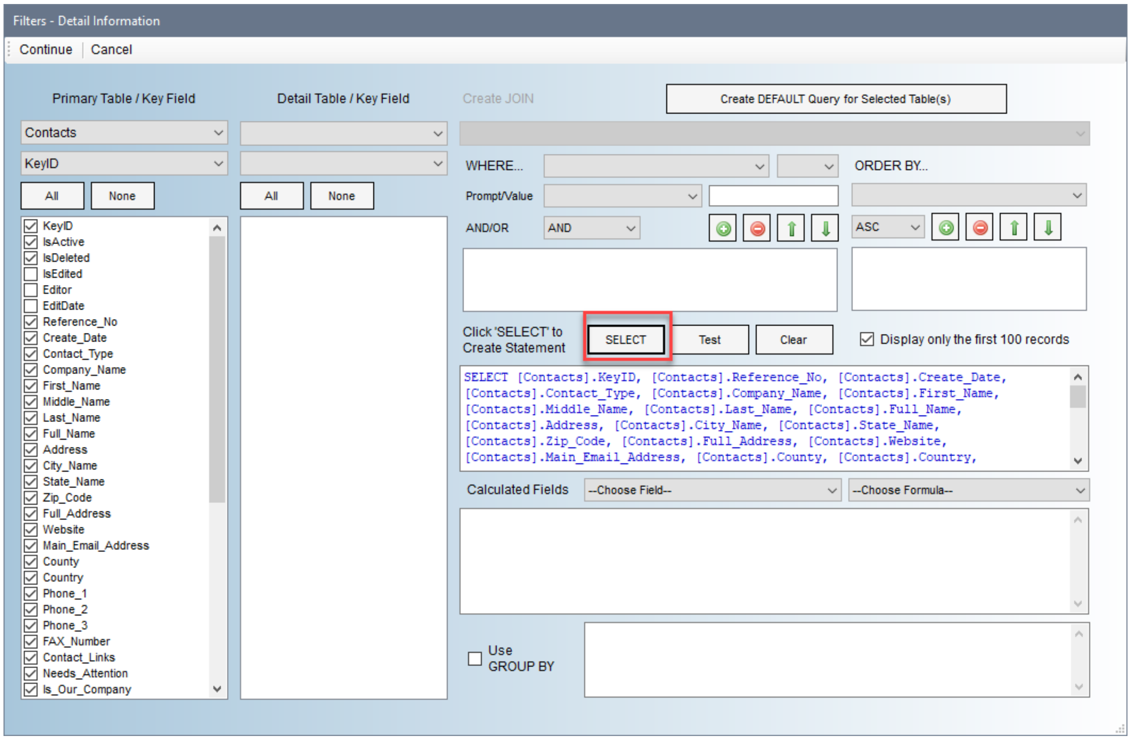


3. 3. In this exercise, however, we'll just pull the data from the Contacts table. Select **Contacts** from the list, and all fields in that table are displayed below it. Click the **All** button to select all of the fields.



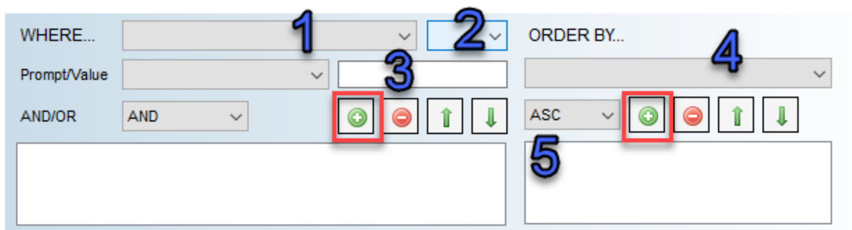
TECH NOTE: There are three "system" fields (IsEdited, Editor, EditDate) that are NOT selected by default, as they are usually of no use in a report.

Click on **Select** button in the middle of the form to create the query. The form should now look like the image below:



C. Filtering and Sorting the Data

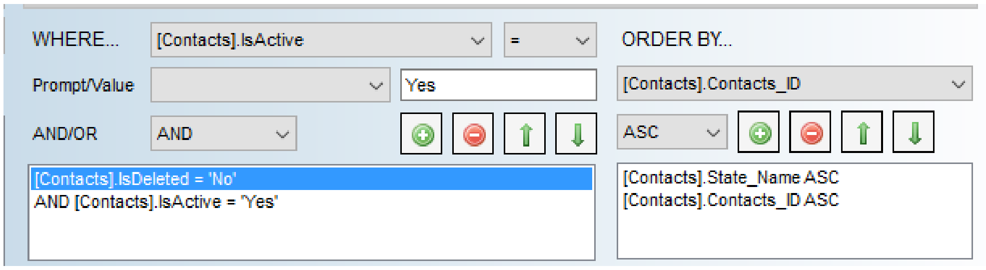
For this report, we want ONLY the active Contacts, so we'll need to apply a filter and tell the report what order to display the data in. Follow the steps below.



1. Click on the **WHERE…** drop-down list and choose the field called **[Contacts].IsDeleted** value. Note that the table name, surrounded in [brackets], precedes each field name. This is not so important when reading data from only one table, but when there are two tables joined in the System Filter, the table name makes it easy to distinguish which field you're using.
2. Click in the **Operator** drop-down list and choose "=". All values in the **IsDeleted** field are either **Yes** or **No**, and since we do not want to include any records marked to be deleted, enter **No** in the **Value** textbox (no quotes, capital "N"). Click the **Add (+)** button to add the filter to the list.
3. Change the field name in the **WHERE** field to **[Contacts].IsActive**. All values in the **IsActive** field are either **Yes** or **No**, and since we want only the active records, enter **Yes** in the Value textbox (no quotes, capital "Y"). Click the "Add" (+) button to add the filter to the list.

4. We want the data to be displayed on this report in alphabetical order based first on the State name (from the **State_Name** field) and then on the Contacts name (in the **Contacts_ID** field**)**. This will format the data set so we can "group by" the state, and show all related Contacts in alphabetical order from that State in each group. Click on the **ORDER BY** drop-down list and pick it. Choose **[Contacts].State_Name** from the list.
5. Choose the default Direction of **ASC**, which stands for Ascending order, then click the **Add (+)** button to add the sort text to the list below.

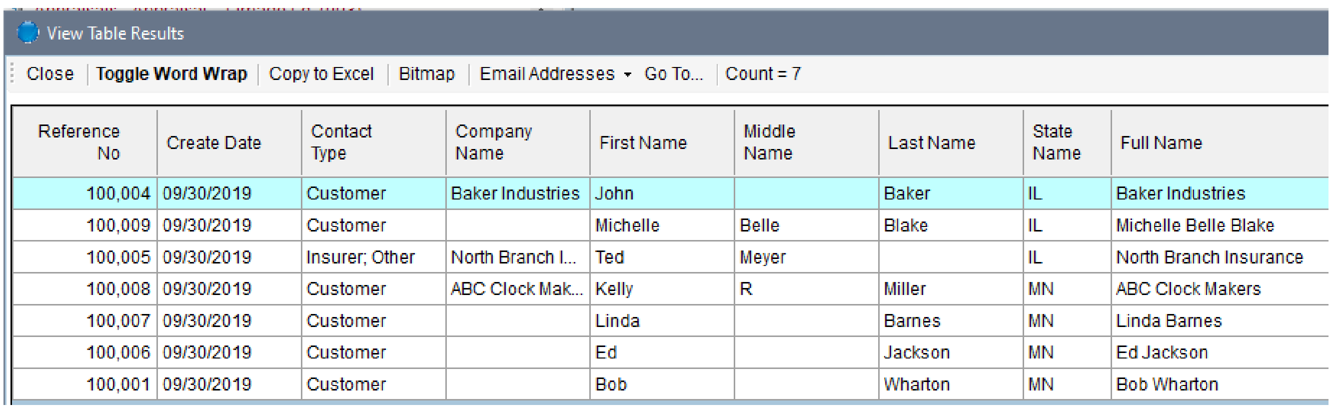
Repeat Steps 4 and 5 using the **[Contacts].Contacts_ID** field. The form should now show your selections:



Click the **Select** button again to add the **WHERE** and **ORDER BY** scripts to the query.

D. Testing the Query

1. Check the **Display only the first 100 records** option to limit the amount of data, then click the **Test** button above the query to test it. If the query is correct, a worksheet will display the results:


View Table Results

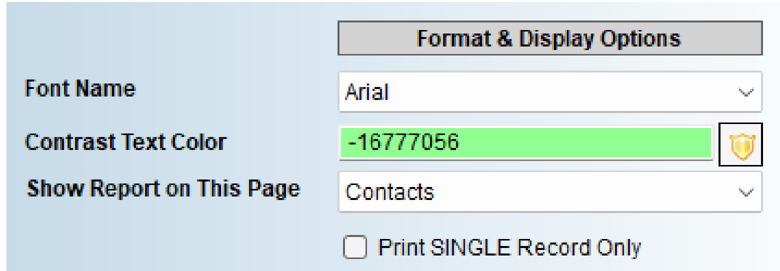
Close | Toggle Word Wrap | Copy to Excel | Bitmap | Email Addresses | Go To... | Count = 7

Reference No	Create Date	Contact Type	Company Name	First Name	Middle Name	Last Name	State Name	Full Name
100,004	09/30/2019	Customer	Baker Industries	John		Baker	IL	Baker Industries
100,009	09/30/2019	Customer		Michelle	Belle	Blake	IL	Michelle Belle Blake
100,005	09/30/2019	Insurer; Other	North Branch I...	Ted	Meyer		IL	North Branch Insurance
100,008	09/30/2019	Customer	ABC Clock Mak...	Kelly	R	Miller	MN	ABC Clock Makers
100,007	09/30/2019	Customer		Linda		Barnes	MN	Linda Barnes
100,006	09/30/2019	Customer		Ed		Jackson	MN	Ed Jackson
100,001	09/30/2019	Customer		Bob		Wharton	MN	Bob Wharton

2. Click the **Close** button to close the worksheet.

E. Fonts, Text Colors & Display Options

The default Font for each report is **Arial**, however:



1. You can change it from the **Font Name** list at the bottom of the form.
2. Also make sure the **Contrast Color** field has a non-zero number in it. The default is a Medium Blue (-16776961). To change it, click the button on the right side of the field and select a different color. Keep in mind that this is the contrast color for all text which are not played on the Layout Designer with black text.
3. The **Show Report on This Page** option is the page where the report is available.
4. If this report is designed to print only the current record, check the **Print SINGLE Record Only** checkbox.

The Query is complete; click the **Continue** button on the toolbar to close the Query Builder and update the Report record with the query data. The form will now look like the image here >>>

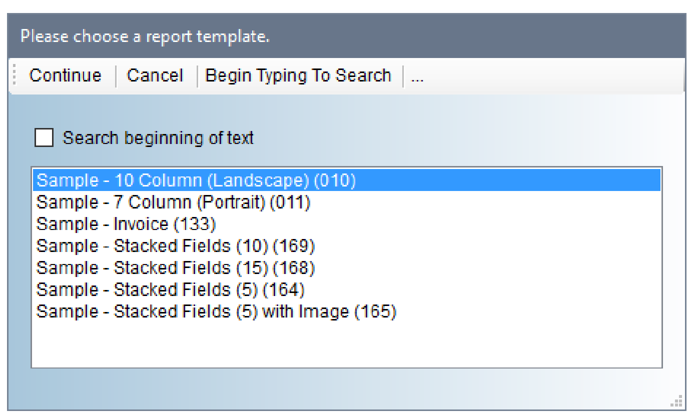
5. Click the **Save** button on the Report Designer toolbar to save your changes.

F. Report Template Best Practices

The list of default report templates (next page) are provided to give you a starting point to customize a report layout. You could click "Cancel" on that dialog and the Layout Designer would still open, but you'd have a blank design to work with. Choosing an existing template, or copying an existing Report record and changing it to match your new report requirements are the recommended ways to start a new report, as it's easier to change something than to start from scratch.

BEST PRACTICE: You should **NEVER** edit any of the default reports (System and Charts). Any time an application update is applied, the default reports may be overwritten with changes in the new release, in which case, you would lose your changes. Instead of editing one, click the "Copy" button on the toolbar to copy it, then edit that copy. You can edit the original report to uncheck the "IsActive" checkbox, which will keep the Report Title from displaying on the Print Menu.

G. The Layout Designer



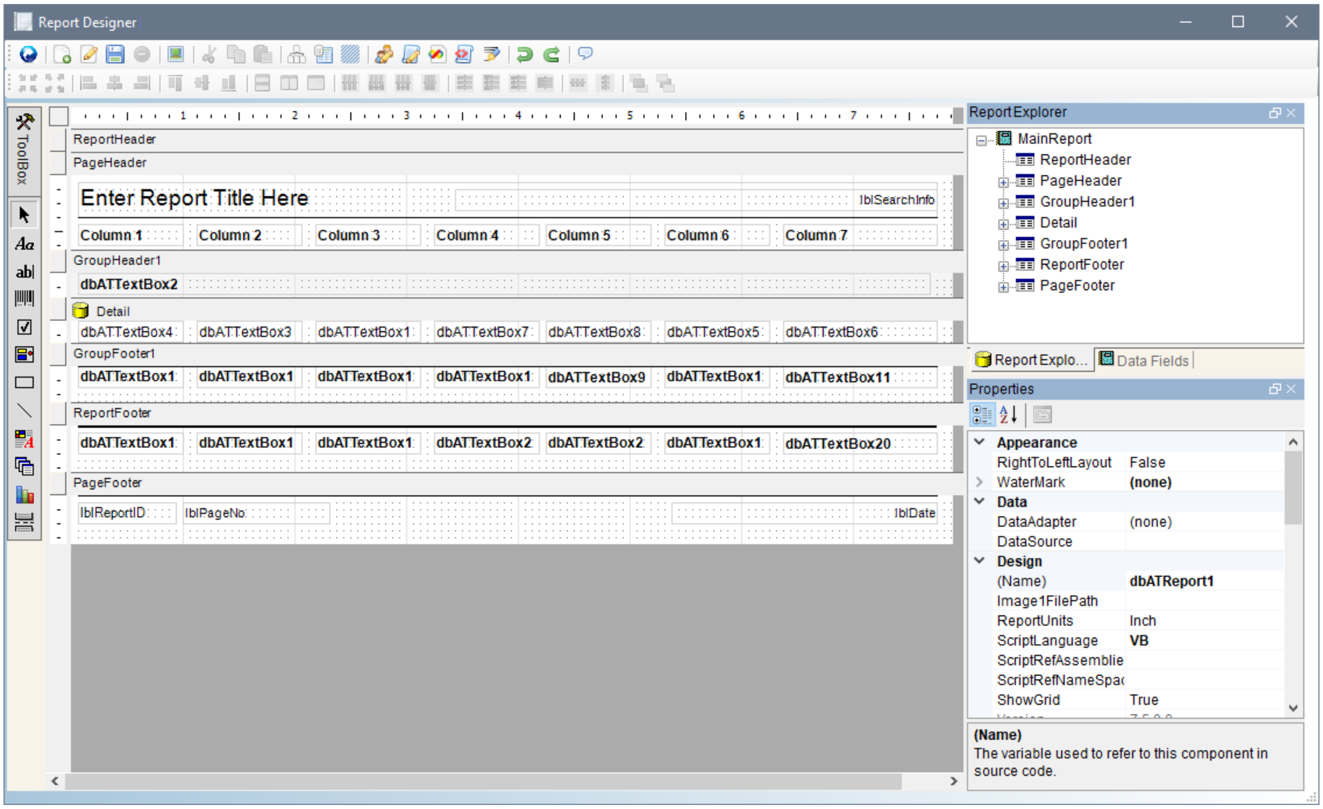
1. Click the "Edit" button on the toolbar or double-click the name of the new report in the Navigator to begin editing again.

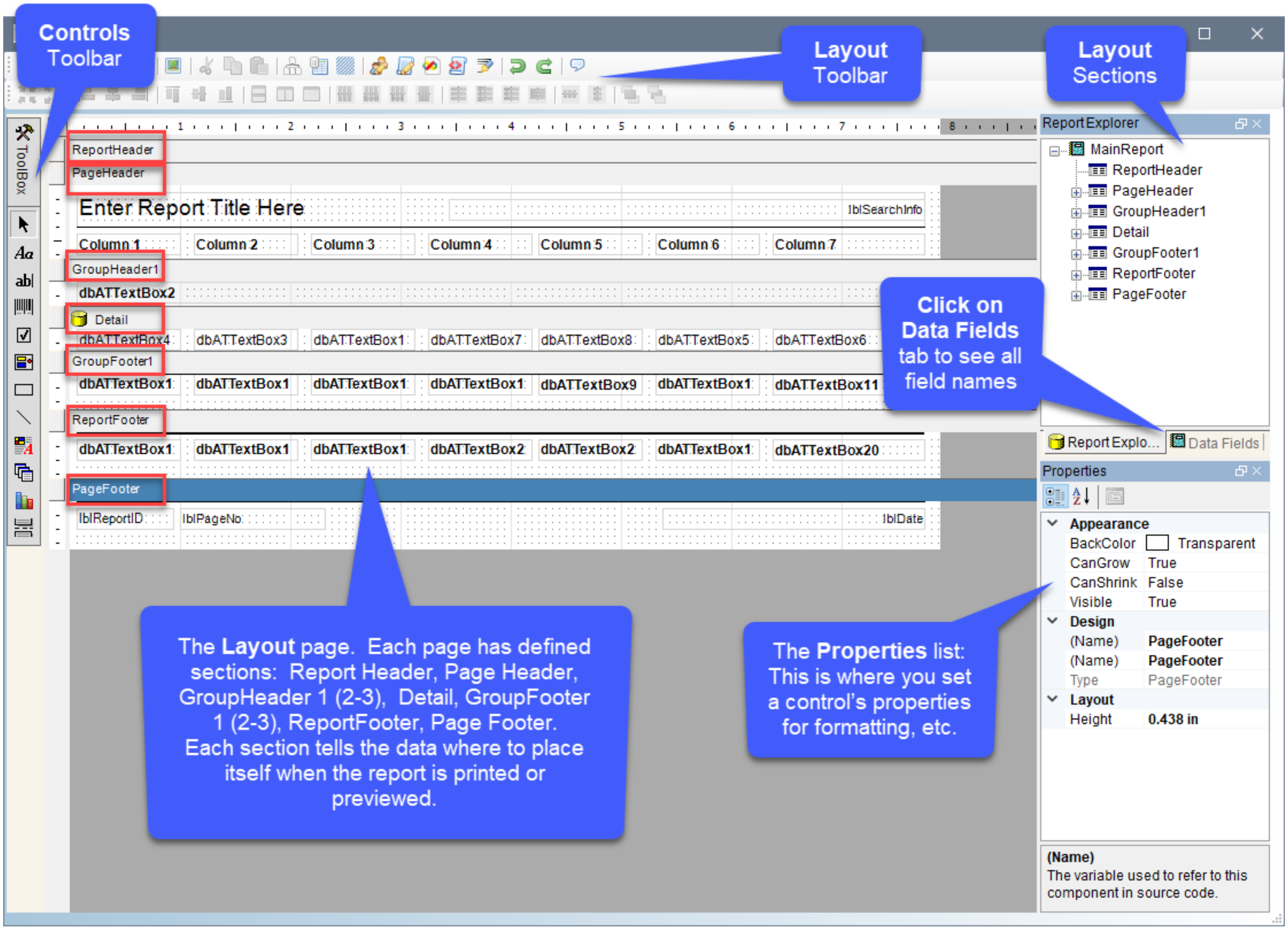
2. Click **Options >> Open Layout Designer**. If this is a new report, no layout design will have been defined and you will be prompted with a list of "starter" reports that you can pick from (see image >>).

TECH NOTE that these reports are in the Report Designer under the System_Settings table, with the "Is Active" checkbox unchecked (marked inactive). This is how the

Report Designer stores default report templates, but showing all records in the System_Settings table, marked inactive, where the Report Title begins with "Sample - ". If you want to design new "starter" reports for your business, you can follow that naming convention to include them in this list when creating a new report.

3. For the Contacts data, we know we'll want to display the data in sorted rows, we'll pick the **Sample – 7 Column (Portrait)** design to start, then edit it to include the fields we want from the table. Click "OK" to continue to the layout designer, which will look like the image below:





Each of the features of the Layout Designer are discussed in detail on the following pages.

H. How the Layout Page Sections Work

Every report has some or all of the following sections (boxed in red in image above):

ReportHeader – Top section in the image above; used as a "first page" for large reports. You can put a title and even images on that page, then set a page break afterwards (in Properties) and the report will print that as the first page, not repeating it again.

PageHeader - This does exactly what it's called; it's displayed on the top of every page in the report.

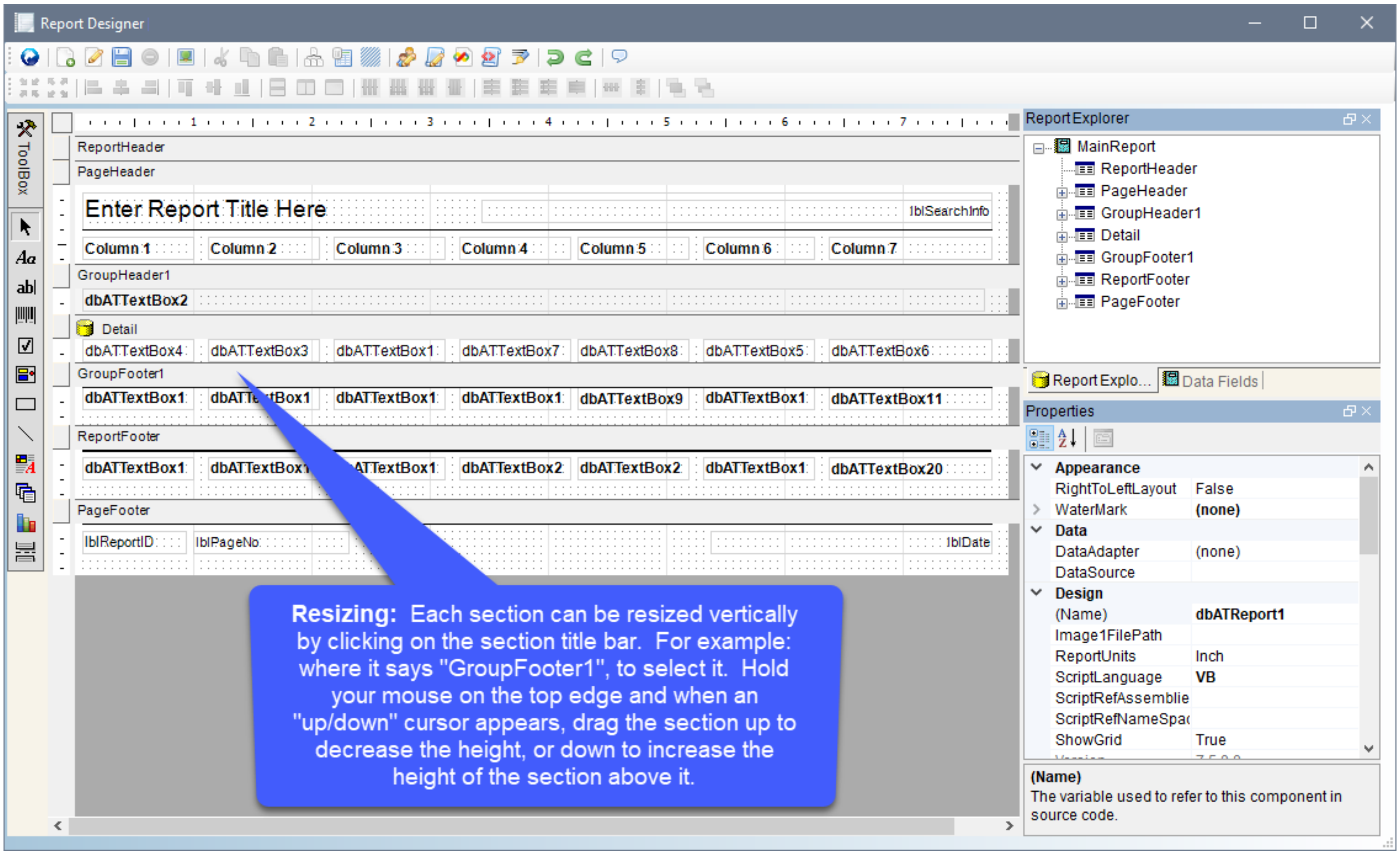
GroupHeader (1-2-3…) - These sections define breaks in the data based on unique field values. For example, if you were printing a financial report and you wanted the records to be summed per month, you would add a Group Header with a field in it that denotes the month, then put summary fields in the Group Footer (1-2-3..) section to show the totals for the Detail records in each section. Think of it as "grouping" or "categorizing" your data. This section is linked to it's matching GroupFooter section.

Detail - This shows the information from each row in the dataset.

GroupFooter (1-2-3…) - This is the "end" of the matching GroupHeader section. You can put summary fields here to Sum, Average, Count, etc. the detail data categorized by the GroupHeader value.

PageFooter - This section is displayed on the bottom of every page. By default, all report templates in have several Label controls which automatically show the Report No., the Page number and the date it's printed. You can remove any of these Labels if you don't want that data on the bottom of your report.

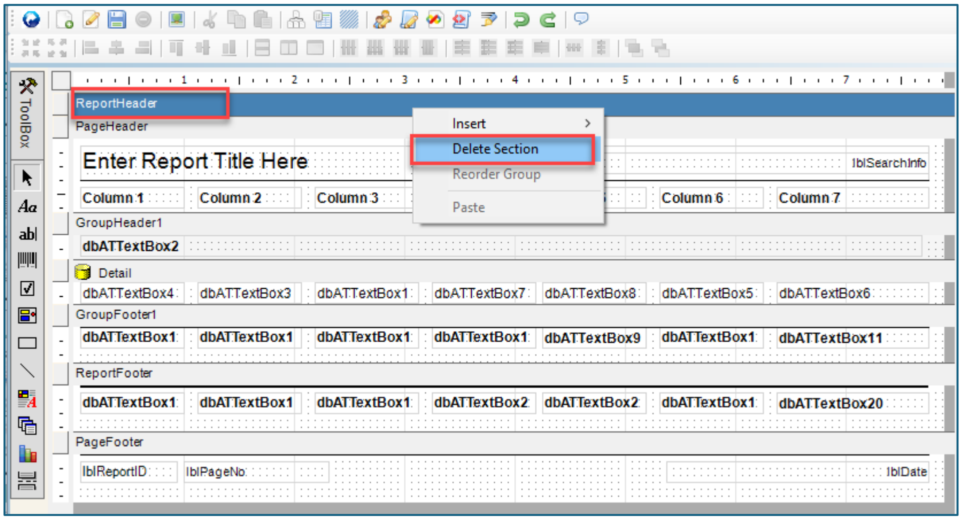
ReportFooter - Denotes the last page of the report. Just like the ReportHeader, it's only printed once, at the end of the full report.



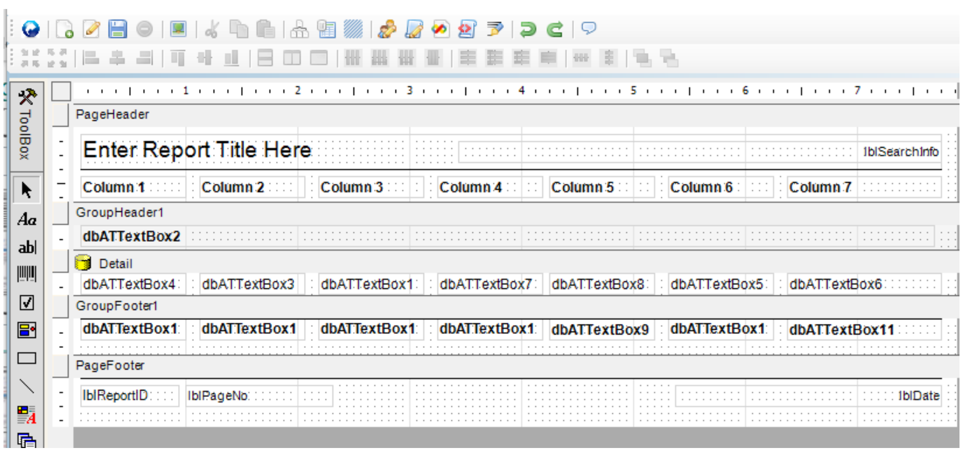
I. Removing an Unneeded Section

Since our sample report is NOT going to need a Report Header, which is like a cover page, we can remove the Report Header and Footer sections

1. Right-click on the **Report Header** bar and choosing **Delete Section**:

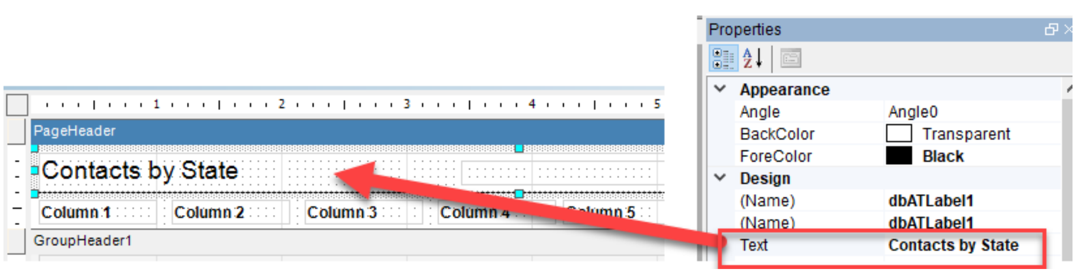


2. Now the layout page should look like this:



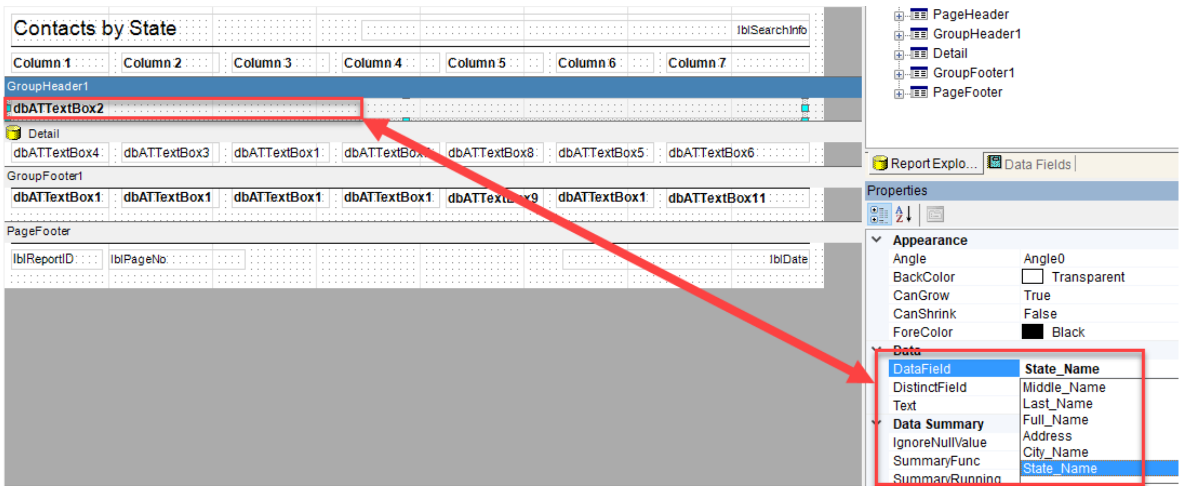
J. Setting the Report Title

1. In the **PageHeader** section click on the Label that says **Enter Report Title Here**.
2. Then in the Properties list at the right, find the "Text" property and change the text to **Contacts by State**. The image below shows the change:



K. Setting the Group Header Field

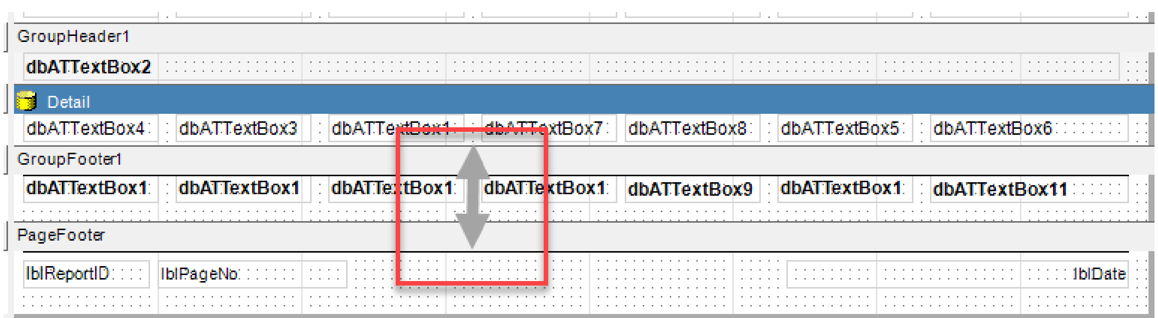
1. We want to categorize or group our data for this report by the State name on each record. We already have a Textbox control in the **GroupHeader1** section. Click on it to select it.
2. Next, in the Properties list, locate the **DataField** property and select the **State_Name** field from the drop-down list. This tells the Textbox control to display the State name in each grouping.



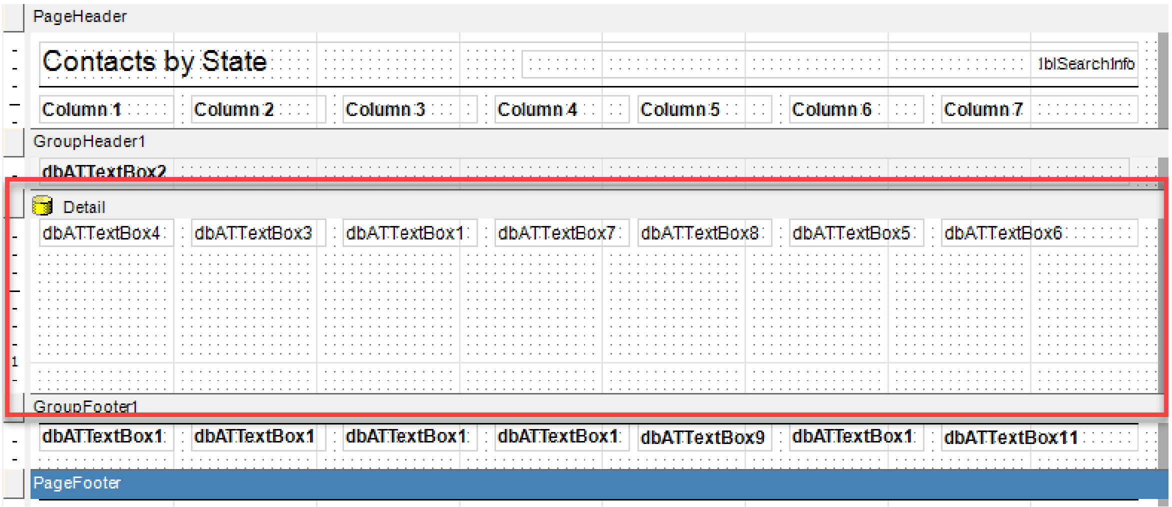
L. Adding the Detail Section Fields

Now we'll add and arrange fields on the Details section. We chose this design because there are already seven Labels and Fields (Textbox controls) setup in a nice neat order for this type of report. These will work well for showing the information for each Contact in a listing format.

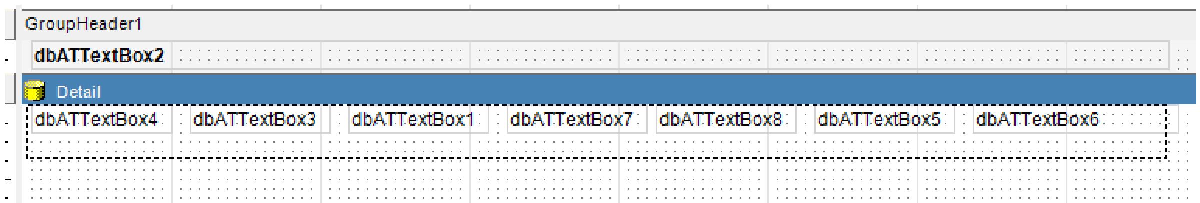
1. We'll stretch the Detail section to make room for moving the fields around by mousing over the top line of the "PageFooter" section until you see a little two-ended arrow (enlarged in the image below). When you see it, hold your mouse button down and drag the PageFooter down on the layout screen.



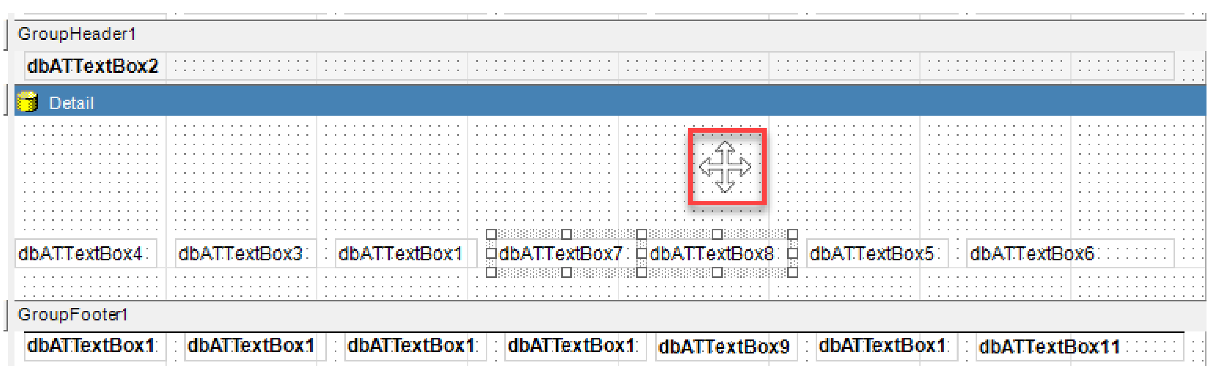
2. Below is what the layout screen should look like; this will give us the room in the Detail section to move the fields around until we have the widths and locations of each sized to display the data correctly.



3. Our next step will be to move the existing Labels and Fields down into the blank section. We could simply click on each one and drag it down, but since they're already lined up very close to how we need them to be, we'll move the entire group by starting in the upper left corner of the Detail section, and holding down your left mouse button, drag over all of the controls, including the dotted line underneath them. The mouse will draw a "dotted" box on the screen around the controls (see image below). Let go of your mouse button and all controls will appear with Selection boxes on them (all will be selected).



4. Hold your mouse over the group and a 4-sided arrow should appear (enlarged & boxed in red below). Hold your mouse down and drag the group of controls to the empty spot lower in the Detail Section The section should now look like the image below.

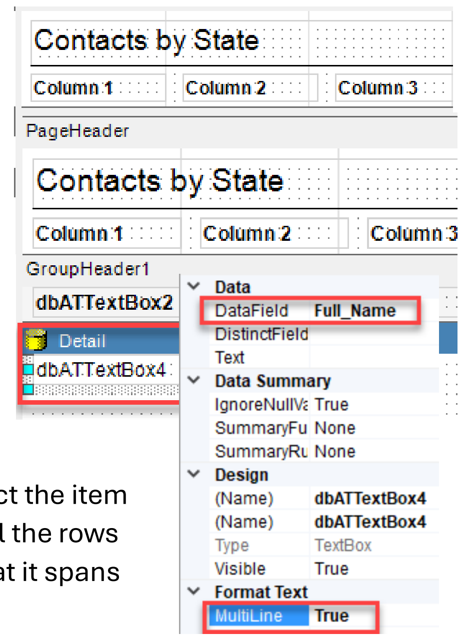


5. Click anywhere in the empty space to clear the selections.

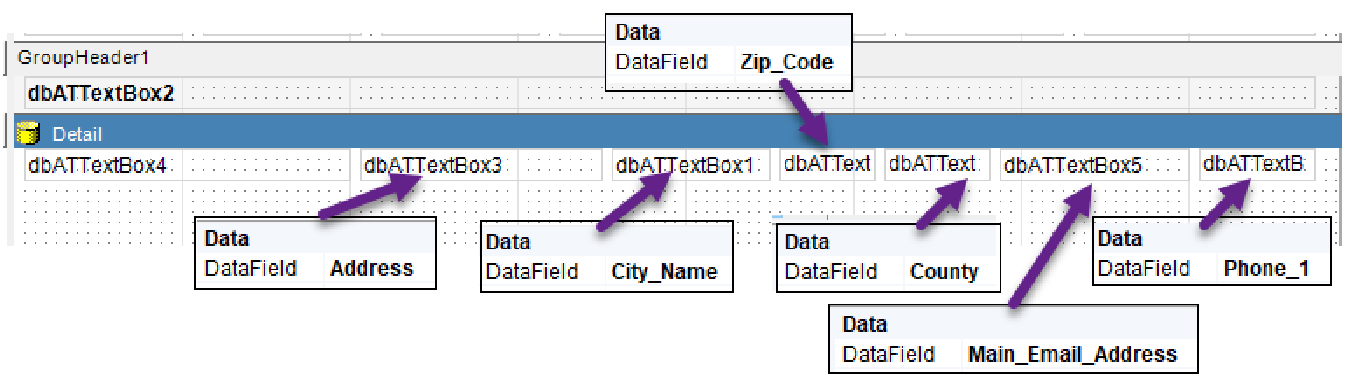
M. Arranging the Fields

NOTE: From here on we'll refer to all Textbox controls as **Fields**, as they represent the data fields resulting from the query designed for this report. These are the seven fields of data we'll display on the report:

- Full_Name
- Address
- City_Name
- Zip_Code
- County
- Main_Email_Address
- Phone_1



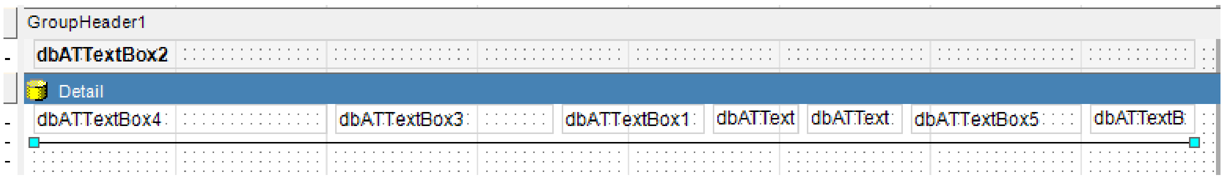
1. Click on the first field in the Detail section. In the image, the control is named **dbATTextBox4**, which may be different in the template you're working in. Hold your mouse down on it and move it up to the top of the **Detail** section, lined up on the left with the **GroupHeader1** field >>>
2. This field will show the **Full Name** text, which could be wider than the textbox control is now. Hold your mouse over the blue selection dot on the right side of the control and stretch it out to the line marking the line on the right side of Column 2. We may need to adjust this width further if there are too many records with long text, but for now this will work.
3. Select the field again, then in the **Properties >> DataField** property, select the item called **Full_Name**. Also set the **MultiLine** property to **True**, which will tell the rows below each record to "move down" if there is so much text in this field that it spans more than one line on the report.
4. Move each of the other textbox controls to the top of the **Detail** section in the same way, leaving a space between each, and stretching or shrinking the width of each to where you think the data will fit. Again, we can adjust these after running the report.



N. Adding Lines

When building a row/column report like this one, it's often helpful to add a line under each row in the **Detail** section to define the space.

1. Click on the Line control in the **Controls Toolbox** (boxed in red in the image at the right >>).



2. Click below the first textbox control and lined up with the left edge of the control. Hold your mouse down and drag across the layout section to the end of the last textbox control. If the line doesn't stay straight, just grab the selection button and drag the end up or down to make it perfectly straight under the textbox controls. It should look like the image above.

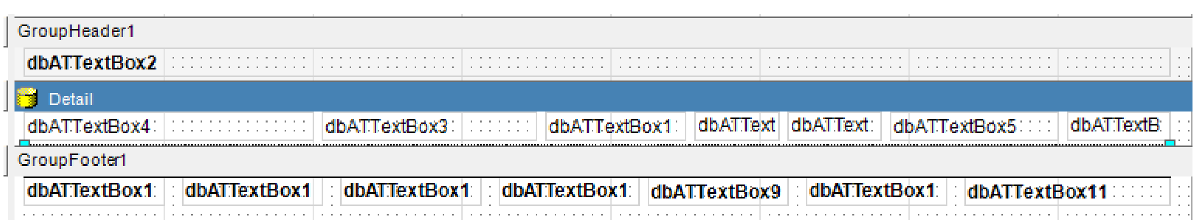
By default, the line will be a solid, 1-point (thick) line. Depending on the type of printer you have, you may need to "minimize" the line so it isn't so dark on the report. There are two ways to do that: 1) click on the line and change the **LineColor** property of it to a lighter gray, or 2) click on it and change the **LineStyle** property to **Dot** or **Dash** or one of the combinations. You may need to experiment with this control a bit before deciding on a standard line format for future reports.

In this example, we'll change the **LineStyle** property to **Dot**.

3. Leaving the line a full "space" below the bottom of the textbox controls will leave quite a visual space on the final printed report. To pull the rows together, select the Line control, then use your **Arrow UP** key to move the line up one point at a time. This method works for any control on the Layout page, to fine-tune the position of the control.

NOTE: You MUST leave at least one point of visual space above a line (not touching the fields above it or below it). Overlapping any control on any section will the controls from moving down the page if the data above them gets too long and "wraps", making the control extend beyond the row size you've defined.

4. The final step on the **Detail** section is to move the **GroupFooter1** top back up under the Line control. Hold your mouse down and resize the **Detail** section to just under the line.

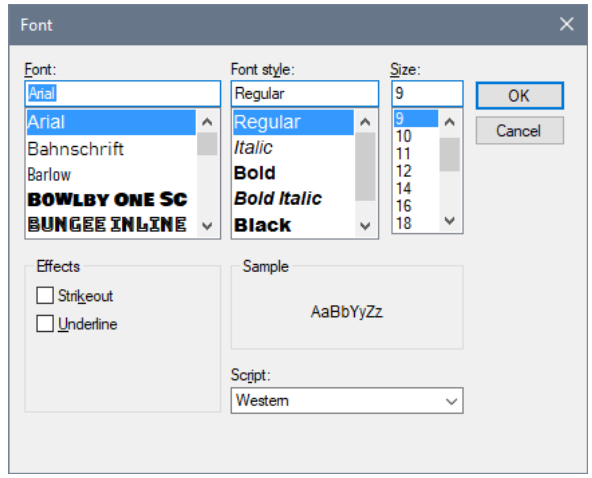


Save Your Work FREQUENTLY!

Now would be a good time to save what you've done. In the next steps we'll reopen the Layout Designer and fit the labels (column headers) to the fields (textbox controls).

*Click the blue **Close (Arrow)** button on the far left of the Designer toolbar to close the window. Click **Save** on the **Report** record to save the layout changes.*

O. Setting Fonts & Styles



Let's take a moment to talk about formatting the Textbox and Label controls. By default, our report designs in the application are using the **TextFont** called **Arial**, and the Textbox controls in the Detail section use a size 9 font. This size seems to be most readable when printed, and allows for sufficient space for multiple columns on a report such as this sample report.

You can change a group of controls by selecting one or more of them together (draw a dotted-line box around a group of controls, or use Shift+Click to select more than one. Then find the **TextFont** property in the Property List and change it by clicking the "…" button on the righ side of the Property line to open the Fonts dialog.

Change the font, style and size and click **OK** to apply the changes to the selected controls.

P. Using Consistent Formatting

Why bother with consistency in Fonts? Because consistency across the entire report, and across all reports, gives the results a polished, professional look, and consequently, reflects positively on your company's standards. All of the default reports are always in **Arial** font, with sizes appropriate to the amount of data (use smaller fonts for reports with more columns, etc.).

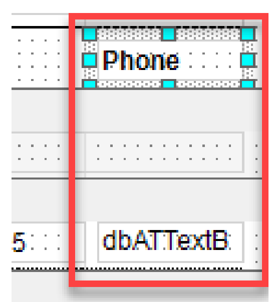
As you learned in the section called **Reports - Custom Settings**, you can quickly change the font and contrast colors of your entire portfolio of reports by a single click. However, keeping the same font when building those reports will make them easier to maintain and review going forward.

Q. Formatting the Column Headers

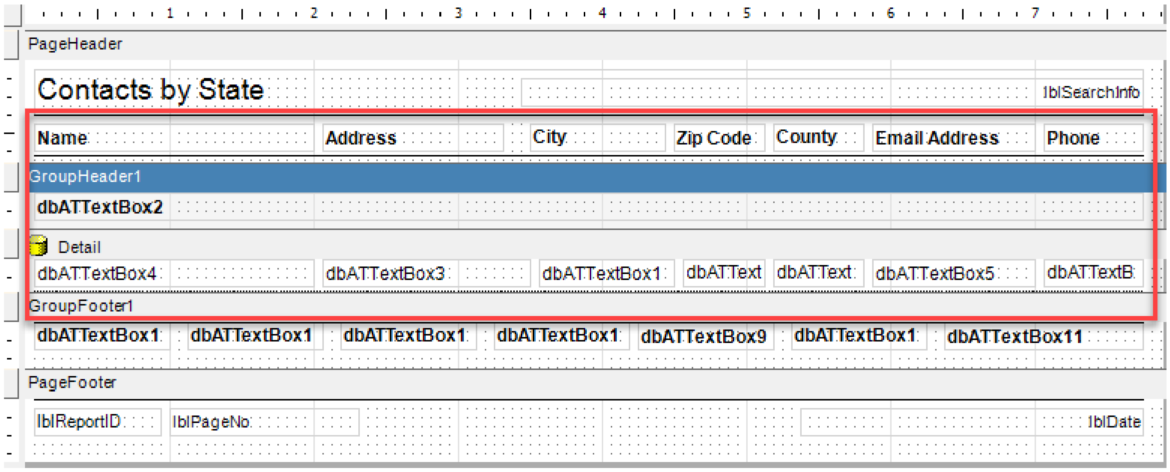
In the **Layout Designer**, the column headers (labels) are lined up in the **PageHeader** section. This means that these column headers will appear on each page of the report. After aligning the Text controls in the previous step, the column headers are not aligned with the columns of data.

1. **Starting with the label on the far right**… click on the label (Column7 in this example) and holding your mouse down on the selection box on the left side of the label, drag the width of the Label to match the left size of the **Phone_1** field in the **Detail** section.

2. With the Label still selected, find the **Text** property in the Property list and change it to **Phone.** It should look similar to this >>>



3. In the next column header label (Column6), drag the RIGHT edge to line up with right edge of the **Main_Email_Address** field, and then the LEFT edge to line up with the left edge of the field. Change the **Text** property to **Email Address**.
4. Do the same with the remaining column header Labels, aligning the left and right edges of each to match the fields in the **Detail** section, and naming them with the correct headings as well: **Name, Address, City, Zip Code, County, Email Address, Phone:**



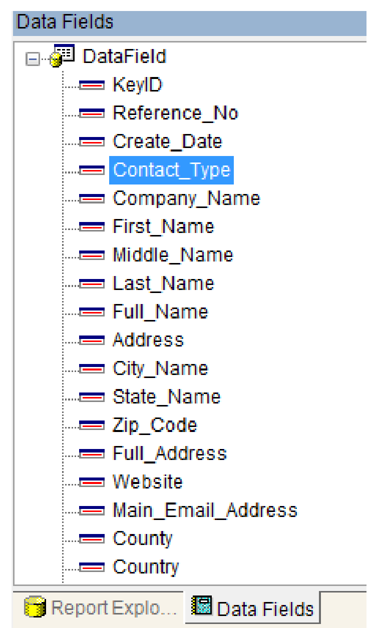
5. **One last step on the PageHeader**: Stretch the section down a bit and add a line under the column header labels (see above). This will delineate the Page Header on each page when printing the report. Then move the bottom of the section back up under the line as shown above.

Save Your Work FREQUENTLY!

*Now would be a good time to save what you've done. In the next steps we'll reopen the Layout Designer and finish up the **GroupFooter1** section.*

*Click the blue **Close (Arrow)** button on the far left of the Designer toolbar to close the window. Click **Save** on the **Report** record to save the layout changes.*

R. Adding More Fields



This project started with seven fields on the template, and because we were only adding seven fields to the Detail section, we had all of the necessary Textbox controls to do that. However, you will find that you need to add addiitonal fields for more complex reports. You can do that one of two ways:

1. Click on the "Data Fields" tab behind the "Report Explorer" window and stretch it out to see the field names. Click on the field you want to add and drag it over to the section where you want it on the form.
2. Copy an existing field by selecting it, the use the standard Windows **Ctrl+C** to make a copy of it. MOVE THE CURRENT FIELD TO THE LOCATION OF THE NEW FIELD, then use **Ctrl+V (Paste)** to paste the copy back on the layout grid. Yes, this seems to be backwards, but the Paste on the layout grid puts the copy in the exact same place as the copied control. Moving the copy FIRST ensures that you will see both copies after pasting.

NOTE: When adding new fields using Option #1, you will need to update the Font name, style and size to match the other fields in the section.

S. Summarizing the Report

The GroupFooters on a report provide a region for summarizing the data above it. When you have multiple Groups on a report, you can add fields on each of the corresponding Footers to provide any of these calculations:

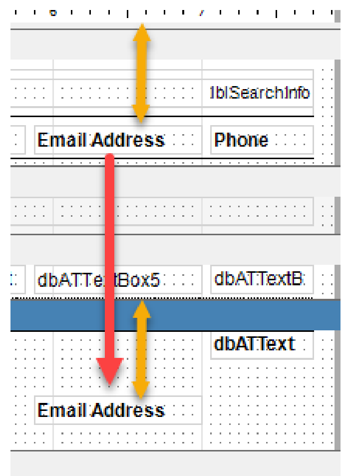
- Sum -- the sum of all field values in the group (number fields)
- Avg -- the average of all field values in the group (number fields)

- Count -- the number of rows in the group (any field type)
- Min -- the minimum value in the group
- Max -- the maximum value in the group
- Var -- the difference of the minimum/maximum values in the group
- VarP -- the VAR percentage
- StdDev -- the Standard Deviation of the values
- StdDevP -- the StdDev percentage

These calculations are done by adding the same field from the column in the Footer section, then setting the Property for **Summary Function** to one of the items above, and setting the Property for **Summary Running** to either **Group** or **All**. Using the **All** setting is most often used when adding summary fields to the **ReportFooter** section, which would then provide the calculations for the entire report.

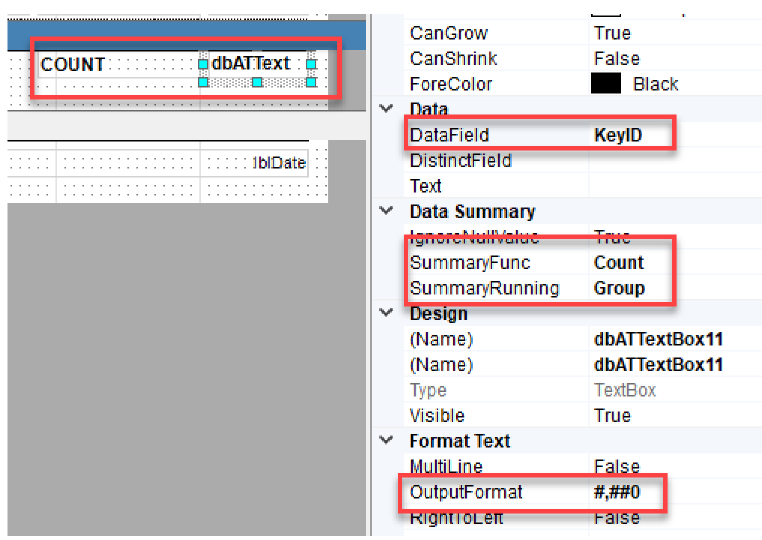
Since we do not have any date or number fields on this report, which could demonstrate the SUM and AVG functions, we'll add a field and label on the **GroupFooter1** section to show the COUNT of each group.

Summarizing the GroupFooter Section



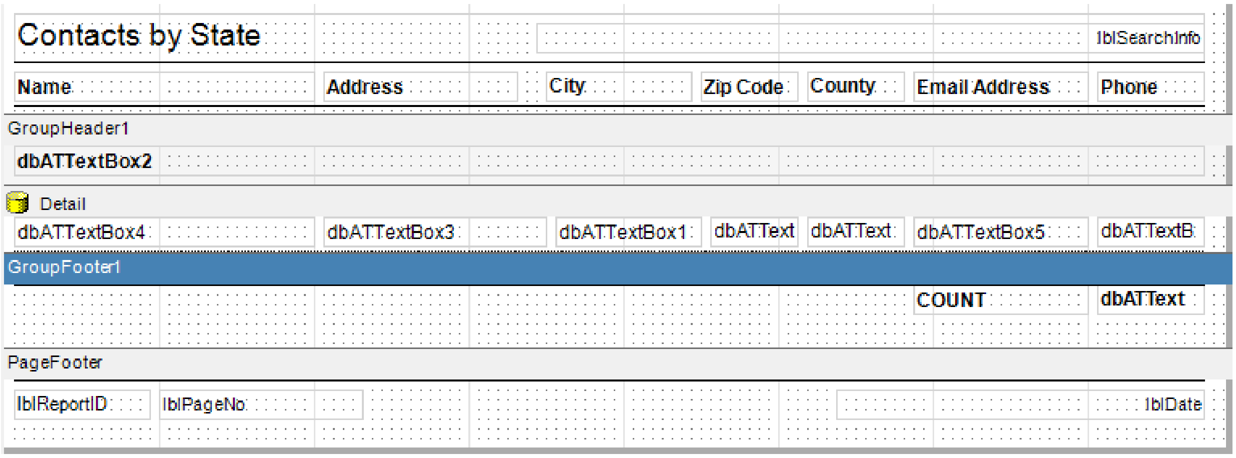
1. Stretch the GroupFooter1 section down a bit to give you room to select all but the last field in the row (leave the one on the far right). Drag your mouse to select them, then click **Delete** on your keyboard to delete them.
2. On the remaining field, drag the left edge to line up with the left edge of the **Phone_1** field above it.
3. Click on the **Email Address** column header label in the **PageHeader** section and copy it to the Windows clipboard (**Ctrl_+C**).
4. Click anywhere in the **GroupFooter1** section, then use **Ctrl+V** to paste the label into the section. This preserves the font formatting for the new label. (NOTE: You can add a new label from the Controls Toolbar Label button, but then you would have to edit the Font name, style and size manually).

ALSO NOTE, when pasting a control from one section to another, the position of the pasted control mirrors that of the copied control. So if the section you're pasting into isn't as large in height as where the copied control resides, you may need to extend the section to find the pasted control.



5. Finally, move the **Email Address** label to the top of the section, just in front of the field and change the text to **COUNT**. Drag the left border in to move the text a little closer to the field.
6. Click on the field, in Properties change the **DataField** Property to **KeyID**. (KeyID is the unique id for each record; using it will ensure each record is counted as that field will never be empty).
7. Also change the **Summary Function** property to **Count**, and the **Summary Running** property to **Group**.

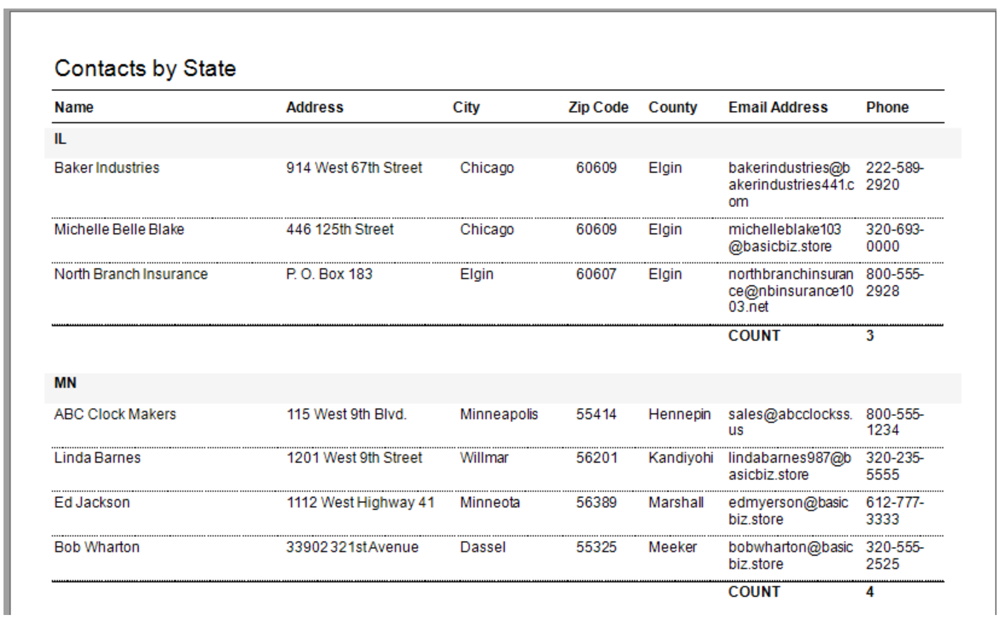
8. Set the **OutputFormat** on the field to the non-decimal number format (#,##0). Even though the KeyID values are text, the result (count) is a number.
9. Finally, move the bottom of the **GroupFooter1** section up, leaving just a quarter inch gap to the bottom of the label and field. Your report should look something like this:



Click on the blue arrow **Close** button on the toolbar to close the **Layout Designer**. Click on **Save** on the toolbar to save all of your changes.

T. Previewing the Report

Click on **Options >> Preview Report** to see the results:



Contacts by State

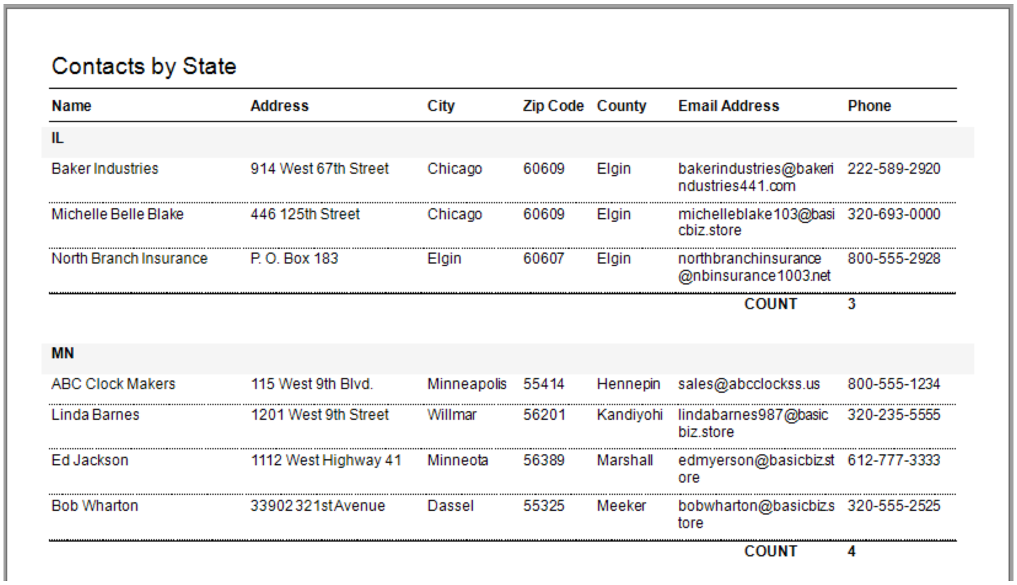
Name	Address	City	Zip Code	County	Email Address	Phone
IL						
Baker Industries	914 West 67th Street	Chicago	60609	Elgin	bakerindustries@bakerindustries441.com	222-589-2920
Michelle Belle Blake	446 125th Street	Chicago	60609	Elgin	michelleblake103@basicbiz.store	320-693-0000
North Branch Insurance	P. O. Box 183	Elgin	60607	Elgin	northbranchinsurance@nbinsurance1003.net	800-555-2928
					COUNT	3
MN						
ABC Clock Makers	115 West 9th Blvd.	Minneapolis	55414	Hennepin	sales@abcclockss.us	800-555-1234
Linda Barnes	1201 West 9th Street	Willmar	56201	Kandiyohi	lindabarnes987@basicbiz.store	320-235-5555
Ed Jackson	1112 West Highway 41	Minneota	56389	Marshall	edmyerson@basicbiz.store	612-777-3333
Bob Wharton	33902 321st Avenue	Dassel	55325	Meeker	bobwharton@basicbiz.store	320-555-2525
					COUNT	4

What should be changed?

A nice appearing report is always based on the data it displays. In our example here, we can say:

- The **Name** column doesn't need as much space
- The **City** columns doesn't need as much space
- The **Email Address** and **Phone** columns each need more space

After moving the fields and labels a bit, it looks like this. Even though the email addresses are still wrapping, the phone numbers are not, which makes them much easier to read.



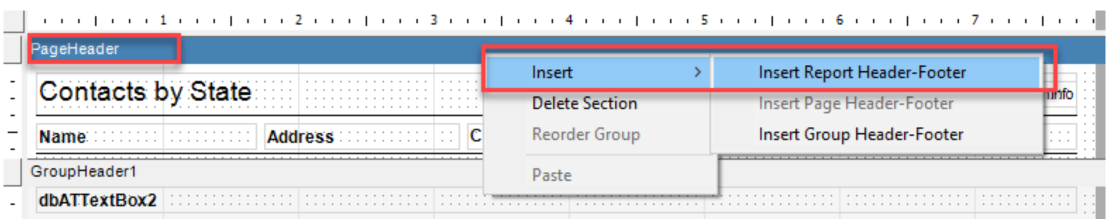
Contacts by State

Name	Address	City	Zip Code	County	Email Address	Phone
IL						
Baker Industries	914 West 67th Street	Chicago	60609	Elgin	bakerindustries@bakerindustries441.com	222-589-2920
Michelle Belle Blake	446 125th Street	Chicago	60609	Elgin	michelleblake103@basicbiz.store	320-693-0000
North Branch Insurance	P. O. Box 183	Elgin	60607	Elgin	northbranchinsurance@nbinsurance1003.net	800-555-2928
					COUNT	3
MN						
ABC Clock Makers	115 West 9th Blvd.	Minneapolis	55414	Hennepin	sales@abcclockss.us	800-555-1234
Linda Barnes	1201 West 9th Street	Willmar	56201	Kandiyohi	lindabarnes987@basicbiz.store	320-235-5555
Ed Jackson	1112 West Highway 41	Minneota	56389	Marshall	edmyerson@basicbizstore	612-777-3333
Bob Wharton	33902 321st Avenue	Dassel	55325	Meeker	bobwharton@basicbizstore	320-555-2525
					COUNT	4

U. Adding A Summary to the Report Footer

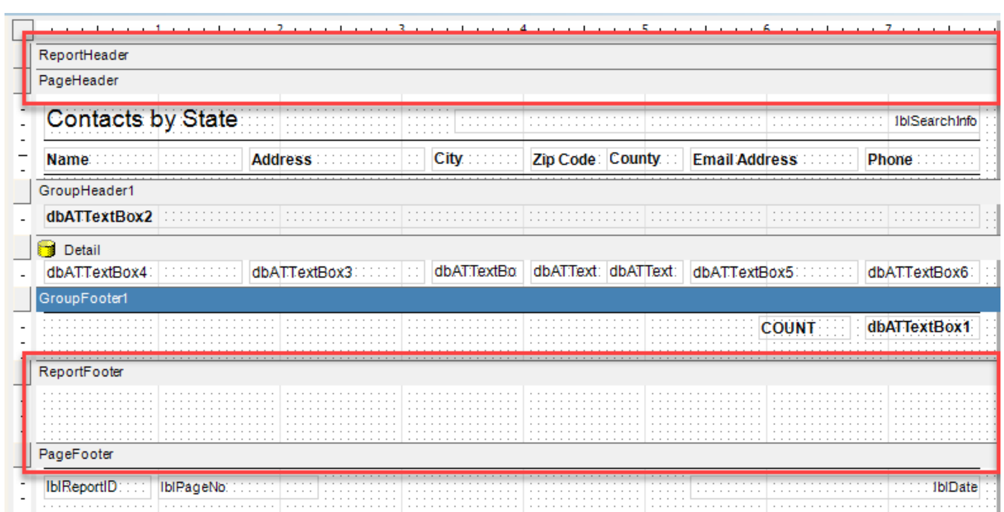
After reviewing the report, it would make sense to have a total count of ALL of the contacts in the report, in addition to the Counts by State.

1. Edit the report, and open the **Layout Designer**. At the start, we removed the **ReportHeader** section because we didn't need a cover page for this report. However, to add a Summary field for the entire report, we need to add it back.
2. Right-click on the **PageHeader** and choose **Insert > Insert Report Header-Footer**

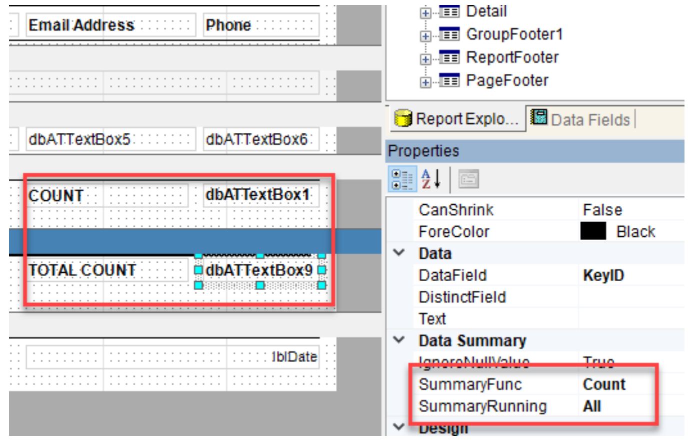


The **ReportHeader** and **ReportFooter** sections are added back to the design.

3. Drag the top of the **PageHeader** section up to close the gap between it and the **ReportHeader**, as we will not use that space for anything.
4. Then pull the **ReportFooter** section down a bit so you have room to add a line, and to copy the label and field from the **GroupFooter1** section.

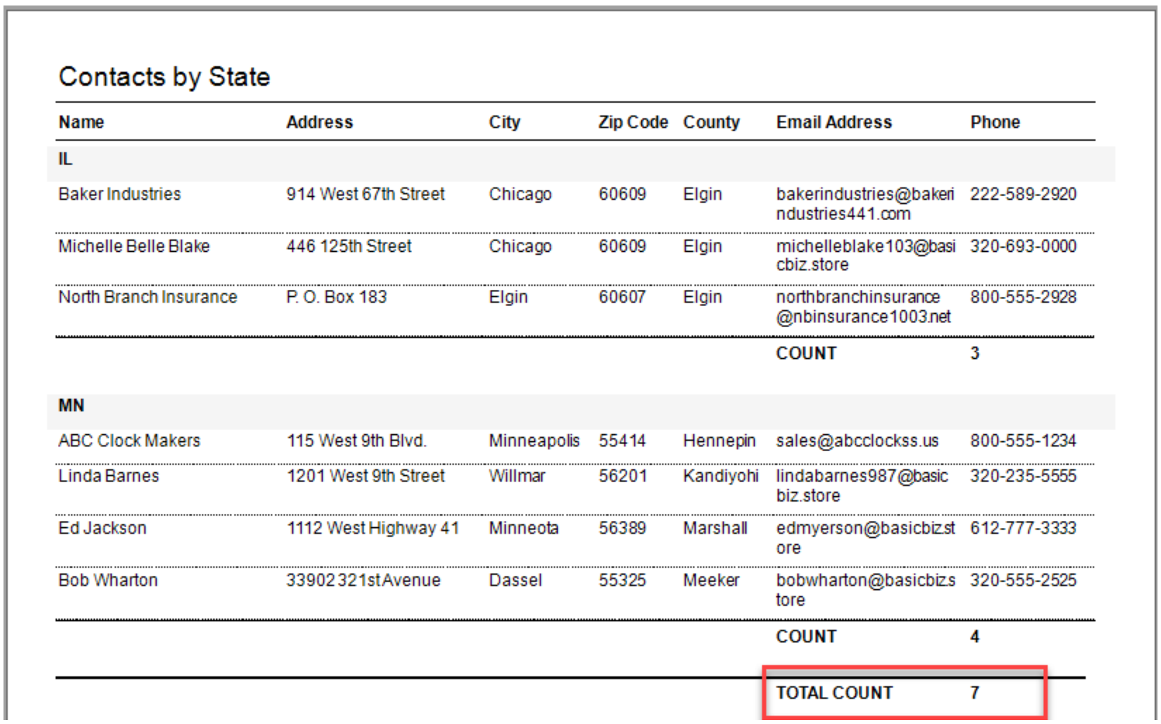


5. Add a line at the top of the **ReportFooter** section and set the **LineWeight** Property to **2**. Copy and paste the **COUNT** label and field from the **GroupFooter1** section to the **ReportFooter** section. Change the text in the label to **TOTAL COUNT**.
6. Left-align both the COUNT and TOTAL COUNT labels with the left edit of the **Email Address** column header and field.
7. Change the **SummaryRunning** Property on the field to **All**, which will then count all of the rows in the report.



Close the **Designer** and **Save** the Report.

Click **Options > Preview Report** to see the changes (below).



Contacts by State

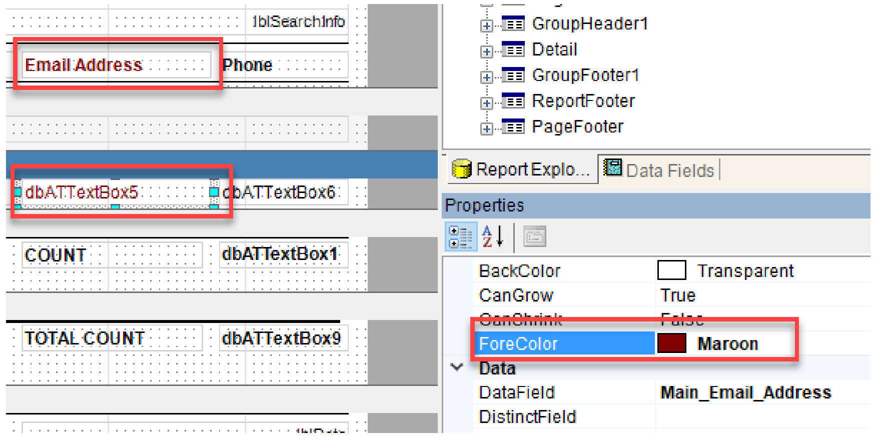
Name	Address	City	Zip Code	County	Email Address	Phone
IL						
Baker Industries	914 West 67th Street	Chicago	60609	Elgin	bakerindustries@bakerindustries441.com	222-589-2920
Michelle Belle Blake	446 125th Street	Chicago	60609	Elgin	michelleblake103@basicbiz.store	320-693-0000
North Branch Insurance	P. O. Box 183	Elgin	60607	Elgin	northbranchinsurance@nbinsurance1003.net	800-555-2928
					COUNT	3
MN						
ABC Clock Makers	115 West 9th Blvd.	Minneapolis	55414	Hennepin	sales@abcclockss.us	800-555-1234
Linda Barnes	1201 West 9th Street	Willmar	56201	Kandiyohi	lindabarnes987@basicbiz.store	320-235-5555
Ed Jackson	1112 West Highway 41	Minneota	56389	Marshall	edmyerson@basicbiz.store	612-777-3333
Bob Wharton	33902 321st Avenue	Dassel	55325	Meeker	bobwharton@basicbizstore	320-555-2525
					COUNT	4
					TOTAL COUNT	7

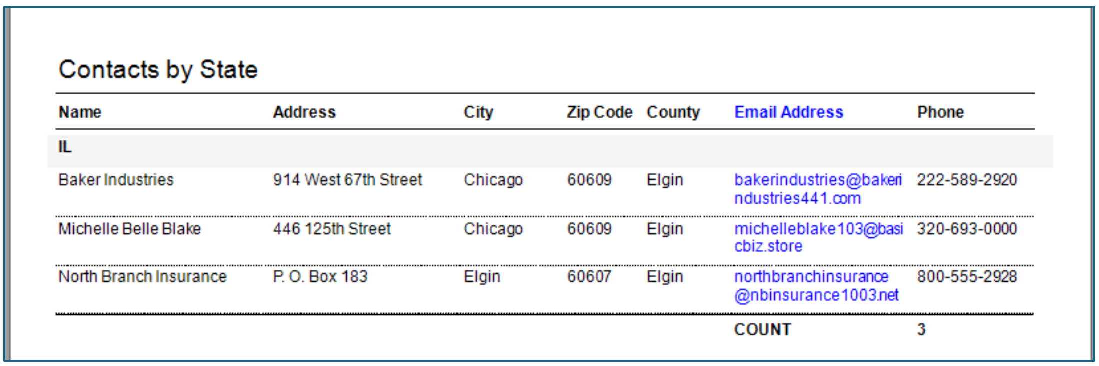
V. Using Contrast Colors

When the new Report record is created, the font (Arial) and contrast color is defaulted to medium blue. We can change the entire report's font on every control by changing the font name in that drop-down list, but how does the contrast color work?

Maybe we want to emphasize that we have a column of email addresses in this report by making that information appear "blue". All we have to do is change the Text color on the field and label to ANYTHING but the default black text, and the contrast color set on the Report record will replace it.

1. Open the **Layout Designer** and click on the **Email Address** label and set the **Forecolor** property to **Maroon** (or any color other than Black).
2. Do the same for the field control for the Email Address column.
3. Close the Designer and save the record. See the results below.





Contacts by State

Name	Address	City	Zip Code	County	Email Address	Phone
IL						
Baker Industries	914 West 67th Street	Chicago	60609	Elgin	bakerindustries@bakerindustries441.com	222-589-2920
Michelle Belle Blake	446 125th Street	Chicago	60609	Elgin	michelleblake103@basicbiz.store	320-693-0000
North Branch Insurance	P. O. Box 183	Elgin	60607	Elgin	northbranchinsurance@nbinsurance1003.net	800-555-2928
					COUNT	3

One More Thing…

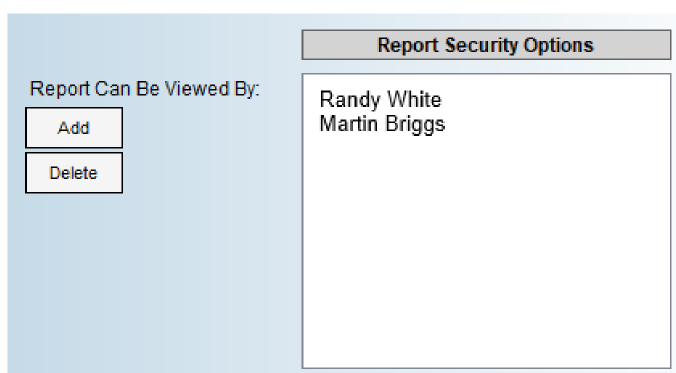
When we started creating the report, we added an "ORDER BY" filter to the general System Filter query to tell the report to order the data by the **State_Name** and **Contacts_ID** fields, which, as you can see by the report, orders the data correctly by those field values.

If you are creating reports that use the GroupHeader/Footer sections to "categorize" the data, your data query must be ordered by the same fields, in the same order, as those sections.

This ends the tutorial, but there's a lot more functionality available! See the **Appendix** sections next to learn more about the **Report Designer**.

Applying Security to Reports

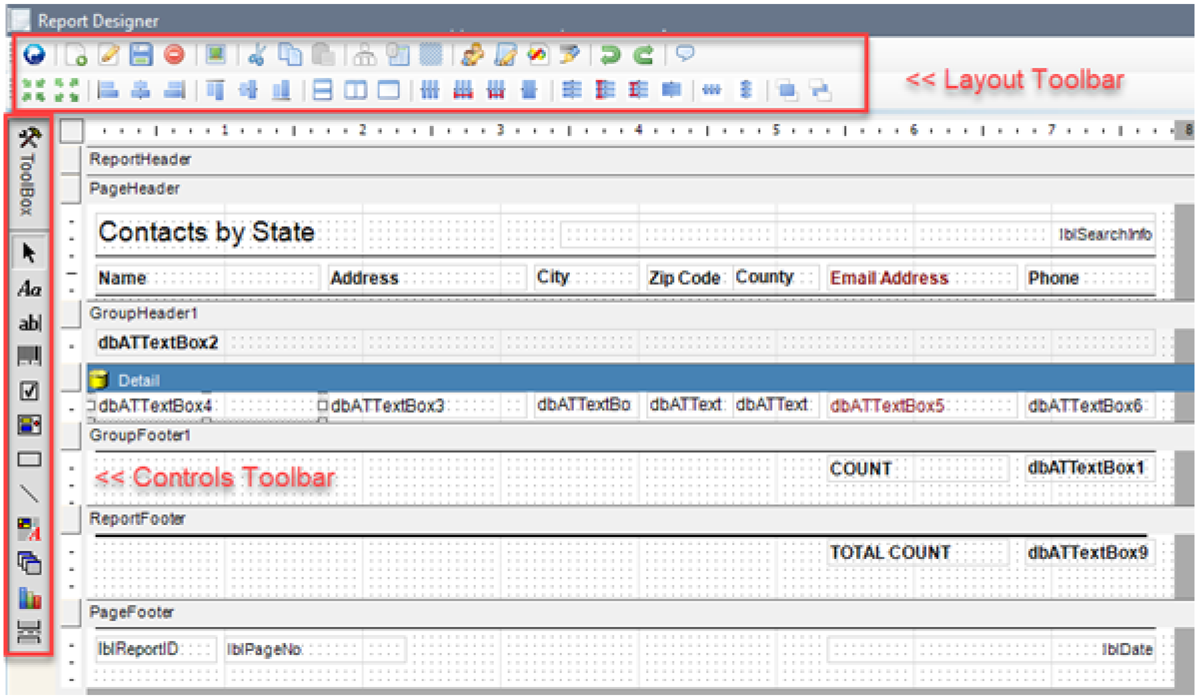
If you have Security enabled, which requires all users to have a Security Login name and password, an option to LIMIT a report to specific users is available. When you click the **Add** button, a list of active users will be displayed; check all persons who will have access to run and view this report. If the list is empty, it's available to everyone.



If Security is not active, this feature will not be available.

Appendix A – The Layout Designer

This section describes each feature of the **Layout Designer** in detail.



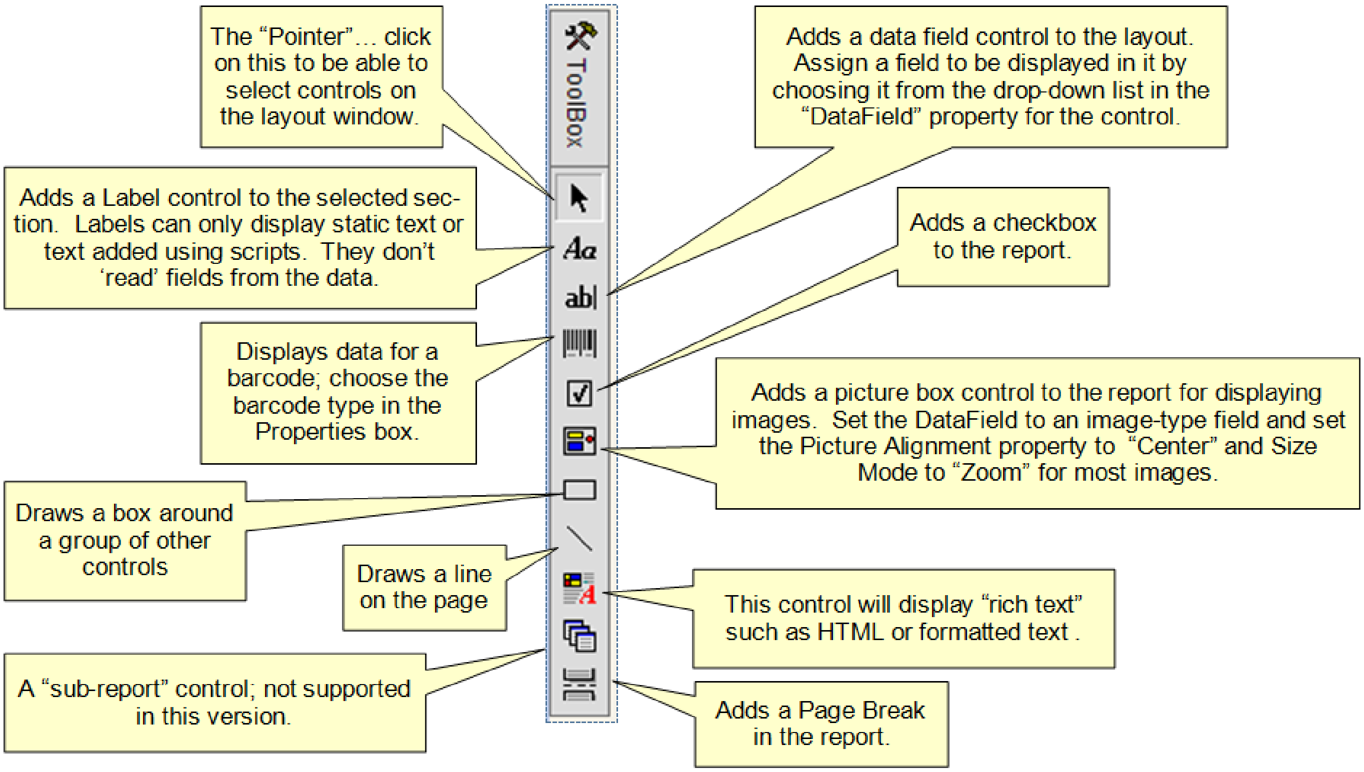
Layout Toolbar – First row: this has options to manage the overall layout of the design. These features include:

- **A** - Close Layout window.
- **B -** Clears layout design; click ‘Yes’ to continue and the Layout window is cleared.
- **C** - Prompts you to change the Layout Template.
- **D** - Saves changes to the temporary file that’s open while you’re editing.
- **E** - Deletes any selected controls on the page; or right-click on selected controls and choose “Delete”.
- **F** - Opens the Page Layout dialog (right) where you can set margins, orientation and printer settings.
- **G** - “Cuts” selected controls so you can move them to another section (standard Windows “Cut/Paste”)
- **H** - Copies selected controls so you can copy them to another section (standard Windows “Copy/Paste”)
- **I** - The “Paste” button (for cut/copy functions).
- **J** - Opens the Report Explorer window, if not already open.
- **K** - Opens the Properties window, if not already open
- **L** - Turns the placement grid on the layout window on or off.
- **M** - When you have more than one GroupHeader/Footer Section, this opens the “Reorder Sections” dialog.
- **N** - Opens the Script dialog (see next section).
- **O** - Replaces all current scripts with the default scripts (see next section).
- **P** - Un-do’s the last action.
- **Q** - Re-do the last action.
- **R**- Opens the **Reports - Custom Settings** dialog

Layout Toolbar – Second row: these are used for formatting the controls.

- **A** – Align selected controls to the Layout Grid
- **B** – Size selected controls to the Layout Grid
- **C** – Align left edges of selected controls
- **D** – Align centers (vertical) of selected controls
- **E** – Align right edges of selected controls
- **F** – Align top edge of selected controls
- **G** – Align middles (horizontal) of selected controls
- **H** – Align bottom edge of selected controls
- **I** – Make all selected controls the same width
- **J** – Make all selected controls the same height
- **K** – Make all selected controls the same size (width & height)
- **L** – Space selected controls equally horizontally
- **M** – Increase horizontal space for selected controls
- **N** – Decrease horizontal space for selected controls
- **O** – Remove horizontal space for selected controls
- **P** – Space selected controls equally vertically
- **Q** – Increase vertical space for selected controls
- **R** - Decrease vertical space for selected controls
- **S** – Remove vertical space for selected controls
- **T** – Center selected controls horizontally
- **U** – Center selected controls vertically
- **V** – Bring selected controls to the top of the control stack
- **W** – Send selected controls to the bottom of the control stack

Control Toolbar



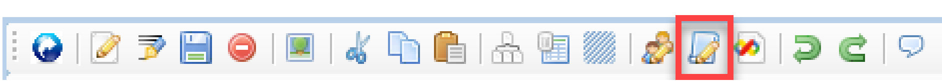
Layout Designer Scripts

Scripting is common in reporting and our Report Designer is no exception. Every default report has some standard scripting behind them that adds default formatting and information (Page numbers, dates) and the Company Information from the **Reports – Custom Settings** in the correct places. It also automatically uses the Font and Text Color choices you've made on each report.

Additional scripts can be added to facilitate very complex reports, including calculated fields, complex functions to test the data in the dataset before displaying results on the screen.

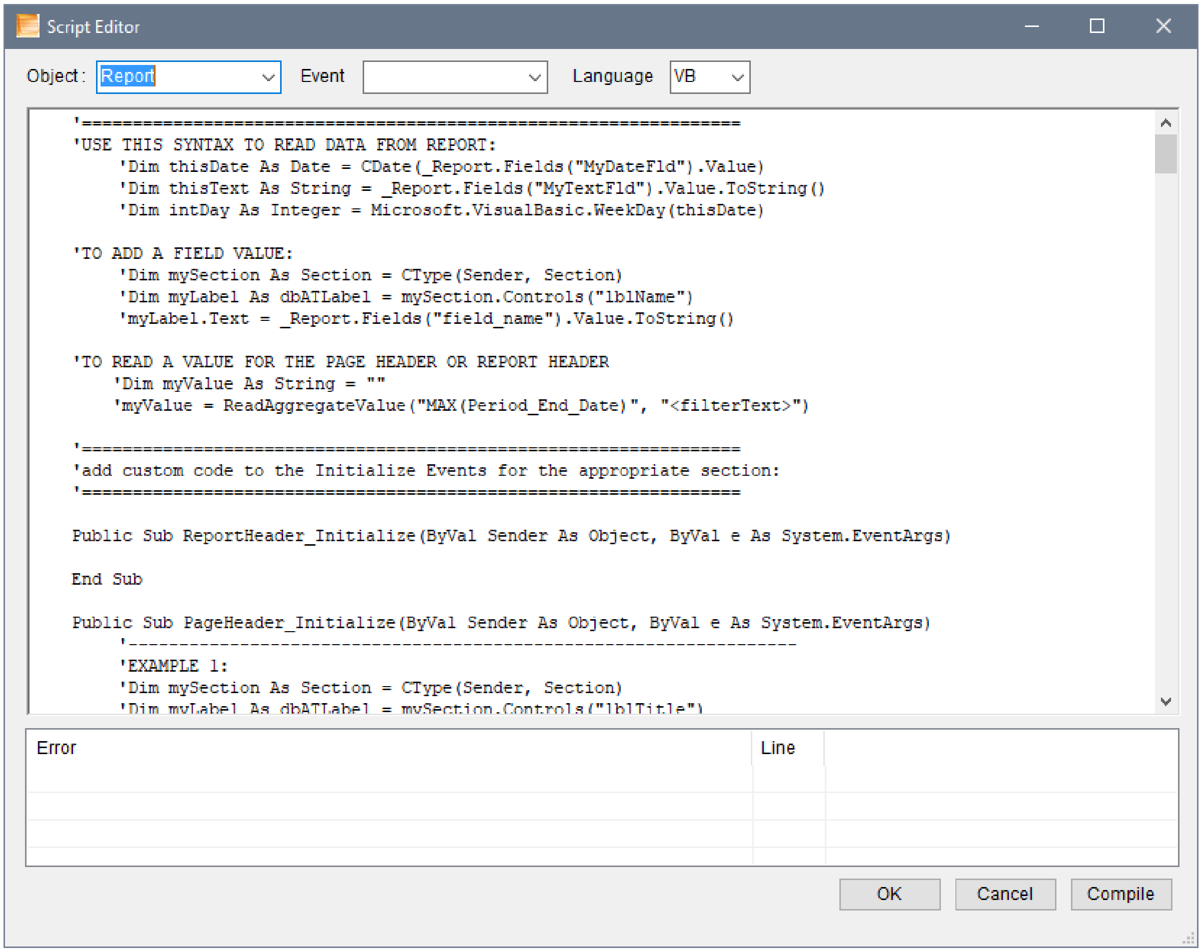
These scripts are written in VB in the Script dialog and follow coding rules for Visual Basic 6, which is close to VB Scripting as well. The Reports object model is simple and follow the physical layout window: Sections, Labels, Fields, etc. There is sample code for some basic actions in the default scripts on every report.

Click the "Edit Script" button on the Layout toolbar to open the Script Editor:



The Script Editor

Scroll through the scripts to see examples of how scripting can enhance a report. If you are skilled in VB Scripts it will be clear how this works; also, you can contact our support team for estimates on custom scripts to meet a reporting requirement in your business.



The default scripts are below. Each new report automatically adds these functions and sample code sections.

```
'================================================================
    'USE THIS SYNTAX TO READ DATA FROM REPORT:
               'Dim thisDate As Date = CDate(_Report.Fields("MyDateFld").Value)
               'Dim thisText As String = _Report.Fields("MyTextFld").Value.ToString()
               'Dim intDay As Integer = Microsoft.VisualBasic.WeekDay(thisDate)

    'TO ADD A FIELD VALUE:
               'Dim mySection As Section = CType(Sender, Section)
               'Dim myLabel As dbATLabel = mySection.Controls("lblName")
               'myLabel.Text = _Report.Fields("field_name").Value.ToString()

    'TO READ A VALUE FOR THE PAGE HEADER OR REPORT HEADER
         'Dim myValue As String = ""
         'myValue = ReadAggregateValue("MAX(Period_End_Date)", "<filterText>")

    '================================================================
    'add custom code to the Initialize Events for the appropriate section:
    '================================================================

    Public Sub ReportHeader_Initialize(ByVal Sender As Object, ByVal e As System.EventArgs)

    End Sub
```

```vb
    Public Sub PageHeader_Initialize(ByVal Sender As Object, ByVal e As System.EventArgs)
            '-----------------------------------------------------------------
            'EXAMPLE 1:
            'Dim mySection As Section = CType(Sender, Section)
            'Dim myLabel As dbATLabel = mySection.Controls("lblTitle")
            'myLabel.Text = _Report.Fields("Report_Title").Value.ToString()

            '-----------------------------------------------------------------
            'EXAMPLE 2:
            'Dim mySection As Section = CType(Sender, Section)
            'Dim myLabel As dbATLabel = mySection.Controls("lblSearchInfo")
            'Dim myTbl As System.Data.DataTable = Nothing
            'Dim myView As System.Data.DataView = _Report.DataSource
            'Dim yearTxt As String = ""

            'If Not myView Is Nothing Then
            '       myTbl = myView.ToTable

            '       If Not myTbl Is Nothing Then
            '               Dim result As Object = myTbl.Compute("MAX(Period_End_Date)", "")
            '               If Microsoft.VisualBasic.IsDate(result) Then
            '                       yearTxt = CDate(result).ToShortDateString()
            '               End If
            '       End If
            'End If

            'myView = Nothing
            'myTbl = Nothing

            'myLabel.Text = "Includes all loans for Institution 201 for Period Ending " & yearTxt & "."
            '-----------------------------------------------------------------
    End Sub

    Public Sub GroupHeader1_Initialize(ByVal Sender As Object, ByVal e As System.EventArgs)

    End Sub

    Public Sub GroupHeader2_Initialize(ByVal Sender As Object, ByVal e As System.EventArgs)

    End Sub

    Public Sub GroupHeader3_Initialize(ByVal Sender As Object, ByVal e As System.EventArgs)

    End Sub

    Public Sub Detail_Initialize(ByVal Sender As Object, ByVal e As System.EventArgs)

    End Sub

    Public Sub GroupFooter3_Initialize(ByVal Sender As Object, ByVal e As System.EventArgs)

    End Sub

    Public Sub GroupFooter2_Initialize(ByVal Sender As Object, ByVal e As System.EventArgs)

    End Sub

    Public Sub GroupFooter1_Initialize(ByVal Sender As Object, ByVal e As System.EventArgs)

    End Sub

    Public Sub PageFooter_Initialize(ByVal Sender As Object, ByVal e As System.EventArgs)
        Dim mySection As Section = CType(Sender, Section)
        Dim myLabel As dbATLabel = mySection.Controls("lblPageNo")
        If Not myLabel Is Nothing Then
```

```
            If _pageNo > 0 Then
                myLabel.Text = "Page " & _pageNo.ToString()
            End If
        End If
        _pageNo = (_pageNo + 1)
    End Sub

    Public Sub ReportFooter_Initialize(ByVal Sender As Object, ByVal e As System.EventArgs)

    End Sub

   '==================================================================
    ' NOTE: The functions below are generic functions for all scripts..
    '       DO NOT DELETE ANYTHING BELOW THE LINE ABOVE!
    '==================================================================
    Private _Report As dbATReport = Nothing
    Private _pageNo As Integer = 0
    Private _reportID As String = ""
    Private _QueryPromptText As String = ""
    Private _QueryResultsText As String = ""

    'these are for images...
    Private _Image1FilePath As String = ""
    Private _Image2FilePath As String = ""
    Private _Image3FilePath As String = ""
    Private _Image4FilePath As String = ""

    'these are for info/text values:
    Private _InfoText1 As String = ""
    Private _InfoText2 As String = ""
    Private _InfoText3 As String = ""
    Private _InfoText4 As String = ""
    Private _InfoText5 As String = ""
    Private _InfoText6 As String = ""
    Private _InfoText7 As String = ""
    Private _InfoText8 As String = ""
    Private _InfoText9 As String = ""
    Private _InfoText10 As String = ""
    Private _InfoComments As String = ""
    Private _UseTodayDate As Boolean = False

    Public Sub Report_DataInitialize(ByVal Sender As Object, ByVal e As System.EventArgs)
        _Report = CType(Sender, dbATReport)
        _pageNo = 1
        _reportID = _Report.ReportNumber
        _QueryPromptText = _Report.QueryPromptText
        _QueryResultsText = _Report.QueryResultsText
        _UseTodayDate = _Report.UseTodayDate

        'these enable/disable color changes, based on the
        'Text_Color and Background_Color fields in Report_Designs
        Dim txtClr As String = _Report.TextColor
        Dim backClr As String = _Report.BackgroundColor
        EnableCustomColors(txtClr, backClr)

        'if there are images... use these:
        _Image1FilePath = _Report.Image1FilePath
        _Image2FilePath = _Report.Image2FilePath
        _Image3FilePath = _Report.Image3FilePath
        _Image4FilePath = _Report.Image4FilePath

        'this is for company info:
        _InfoText1 = _Report.InfoText1
        _InfoText2 = _Report.InfoText2
        _InfoText3 = _Report.InfoText3
        _InfoText4 = _Report.InfoText4
```


```
        _InfoText5 = _Report.InfoText5
        _InfoText6 = _Report.InfoText6
        _InfoText7 = _Report.InfoText7
        _InfoText8 = _Report.InfoText8
        _InfoText9 = _Report.InfoText9
        _InfoText10 = _Report.InfoText10
        _InfoComments = _Report.InfoComments

        For Each mySection As Section In _Report.Sections
            UpdateColors(mySection)
            AddInfoTextAndImages(mySection)
        Next
    End Sub

    Private Sub AddInfoTextAndImages(ByRef mySection As Section)
        Dim myLabel As dbATLabel = Nothing
        Dim i As Integer = 0

        'use this to add images....
        For i = 1 To 4
            Dim filePath As String = imagePathByIndex(i)
            If filePath.Length > 0 Then
                If System.IO.File.Exists(filePath) Then
                    For Each ctrl As Object in mySection.Controls
                        If TypeOf (ctrl) Is dbATPicture Then
                            If ctrl.Name.EndsWith(i.ToString()) Then
                                Dim myPic As dbATPicture = CType(ctrl, dbATPicture)
                                myPic.Image = System.Drawing.Image.FromFile(filePath)
                                Exit For
                            End If
                        End If
                    Next
                End If
            End If
        Next

        'use these to add company info text:
        For i = 1 To 10
            Dim lblName As String = "lblInfoText" & i.ToString()
            myLabel = mySection.Controls(lblName)
            If Not myLabel Is Nothing Then
                myLabel.Text = infoTextByIndex(i)
            End If
        Next

        myLabel = mySection.Controls("lblInfoComments")
        If Not myLabel Is Nothing Then
            myLabel.Text = infoTextByIndex(99)
        End If

        myLabel = mySection.Controls("lblSearchInfo")
        If Not myLabel Is Nothing Then
            myLabel.Text = _QueryPromptText
        End If

        myLabel = mySection.Controls("lblReportID")
        If Not myLabel Is Nothing Then
            myLabel.Text = _reportID
        End If

        myLabel = mySection.Controls("lblDate")
        If Not myLabel Is Nothing Then
            myLabel.Text = Date.Today.ToShortDateString()
        End If

       If _UseTodayDate Then
```

```
            myLabel = mySection.Controls("lblDateToday")
            If Not myLabel Is Nothing Then
                myLabel.Text = Date.Today.ToShortDateString()
            End If
        End If
    End Sub

    Private Function infoTextByIndex(ByVal idx As Integer) As String
        Dim retValue As String = ""

        Select Case idx
            Case 1
                retValue = _InfoText1
            Case 2
                retValue = _InfoText2
            Case 3
                retValue = _InfoText3
            Case 4
                retValue = _InfoText4
            Case 5
                retValue = _InfoText5
            Case 6
                retValue = _InfoText6
            Case 7
                retValue = _InfoText7
            Case 8
                retValue = _InfoText8
            Case 9
                retValue = _InfoText9
            Case 10
                retValue = _InfoText10
            Case 99
                retValue = _InfoComments
        End Select
        Return retValue
    End Function

    Private Function imagePathByIndex(ByVal idx As Integer) As String
        Dim retValue As String = ""

        Select Case idx
            Case 1
                retValue = _Image1FilePath
            Case 2
                retValue = _Image2FilePath
            Case 3
                retValue = _Image3FilePath
            Case 4
                retValue = _Image4FilePath
            Case Else
                'do nothing
        End Select
        Return retValue
    End Function

    Private Function ReadAggregateValue(ByVal calculationText As String,
        ByVal filterText As String) As String
        Dim retValue As String = ""
        Dim myTbl As System.Data.DataTable = Nothing
        Dim myView As System.Data.DataView = _Report.DataSource

        If Not myView Is Nothing Then
            myTbl = myView.ToTable
            If Not myTbl Is Nothing Then
                Dim result As Object = myTbl.Compute(calculationText, filterText)
                If Microsoft.VisualBasic.IsDate(result) Then
```

```
                retValue = result.toString()
            End If
        End If
    End If

    myView = Nothing
    myTbl = Nothing
    Return retValue
End Function

Private Sub ShowMessageBoxEx(ByVal messageTxt As String,
    ByVal captionTxt As String)
   Microsoft.VisualBasic.MsgBox(messageTxt, Microsoft.VisualBasic.vbOkOnly, captionTxt)
End Sub


'=================================================================
' NOTE: The functions below this line are needed for color
'       changes on the reports
'=================================================================
'these are used to switch colors....
Private _clrStdBack As System.Drawing.Color = System.Drawing.Color.Transparent
Private _clrStdText As System.Drawing.Color = System.Drawing.Color.Black
Private _clrRevText As System.Drawing.Color = System.Drawing.Color.White
Private _clrChgBack As System.Drawing.Color = System.Drawing.Color.Transparent
Private _clrChgText As System.Drawing.Color = System.Drawing.Color.Black
Private _clrTextEnabled As Boolean = False
Private _clrBackEnabled As Boolean = False

Private Sub EnableCustomColors(ByVal txtClr As String, _
    ByVal backClr As String)
    'this is called from from Report_DataInitialize()

    If txtClr <> "-1" And Microsoft.VisualBasic.IsNumeric(txtClr) Then
        _clrTextEnabled = True
        _clrChgText = System.Drawing.Color.FromArgb(CInt(txtClr))

       _clrBackEnabled = True
        _clrChgBack = System.Drawing.Color.FromArgb(CInt(txtClr))
    End If
End Sub

Private Sub UpdateColors(ByRef mySection As Section)
    'this is called by each section on initialization;

    'if we aren't supporting color changes, just exit...
    If Not _clrTextEnabled And Not _clrBackEnabled Then Exit Sub

    For Each ctrl As Object In mySection.Controls
        If TypeOf (ctrl) Is dbATLabel Then
            Dim myLabel As dbATLabel = CType(ctrl, dbATLabel)
            If _clrTextEnabled Then
                If myLabel.ForeColor <> _clrStdText And myLabel.ForeColor <> _clrRevText Then
                    myLabel.ForeColor = _clrChgText
                End If
            End If

            If _clrBackEnabled Then
                If myLabel.BackColor <> _clrStdBack And myLabel.BackColor <> _clrStdText Then
                    myLabel.BackColor = _clrChgBack
                End If
            End If
        End If

        If TypeOf (ctrl) Is dbATTextBox Then
            Dim myTxt As dbATTextBox = CType(ctrl, dbATTextBox)
```


```
            If _clrTextEnabled Then
                If myTxt.ForeColor <> _clrStdText And myTxt.ForeColor <> _clrRevText Then
                    myTxt.ForeColor = _clrChgText
                End If
            End If

            If _clrBackEnabled Then
                If myTxt.BackColor <> _clrStdBack Then
                    myTxt.BackColor = _clrChgBack
                End If
            End If
        End If

        If TypeOf (ctrl) Is dbATShape Then
            Dim myCtrl As dbATShape = CType(ctrl, dbATShape)

            If _clrTextEnabled Then
                If myCtrl.LineColor <> _clrStdText And myCtrl.LineColor <> _clrRevText Then
                    myCtrl.LineColor = _clrChgText
                End If
            End If

            If _clrBackEnabled Then
                If myCtrl.BackColor <> _clrStdBack Then
                    myCtrl.BackColor = _clrChgBack
                End If
            End If
        End If

        If TypeOf (ctrl) Is dbATLine Then
            Dim myCtrl As dbATLine = CType(ctrl, dbATLine)

            If _clrTextEnabled Then
                If myCtrl.LineColor <> _clrStdText And myCtrl.LineColor <> _clrRevText Then
                    myCtrl.LineColor = _clrChgText
                End If
            End If
        End If
    Next
End Sub
```

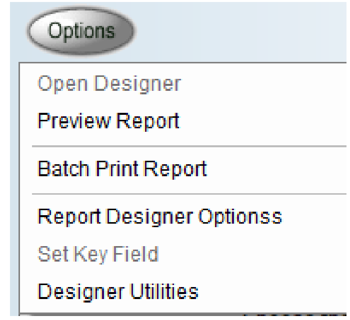
Appendix B – Printing Reports, Labels & Charts from the Application

The Reports, Labels, Charts & Views Dialog

Every page in your application has a toolbar at the top, with a **Print** button, which opens the **Reports, Labels, Charts & Views** dialog. Each tab on this form describes the options available for the data you enter in the system.

See the **Phase25 Printing Guide** for details.

Appendix D - Report Designer Utilities



On the **Options** button (or Toolbar) on the Report Designer form are additional features, some of which may have already been referenced in the information above. All of them will be explained in this section.

Open Layout Designer

This is the button that opens the Layout Designer, and is only enabled when the Report page is in Add or Edit mode.

Preview Report

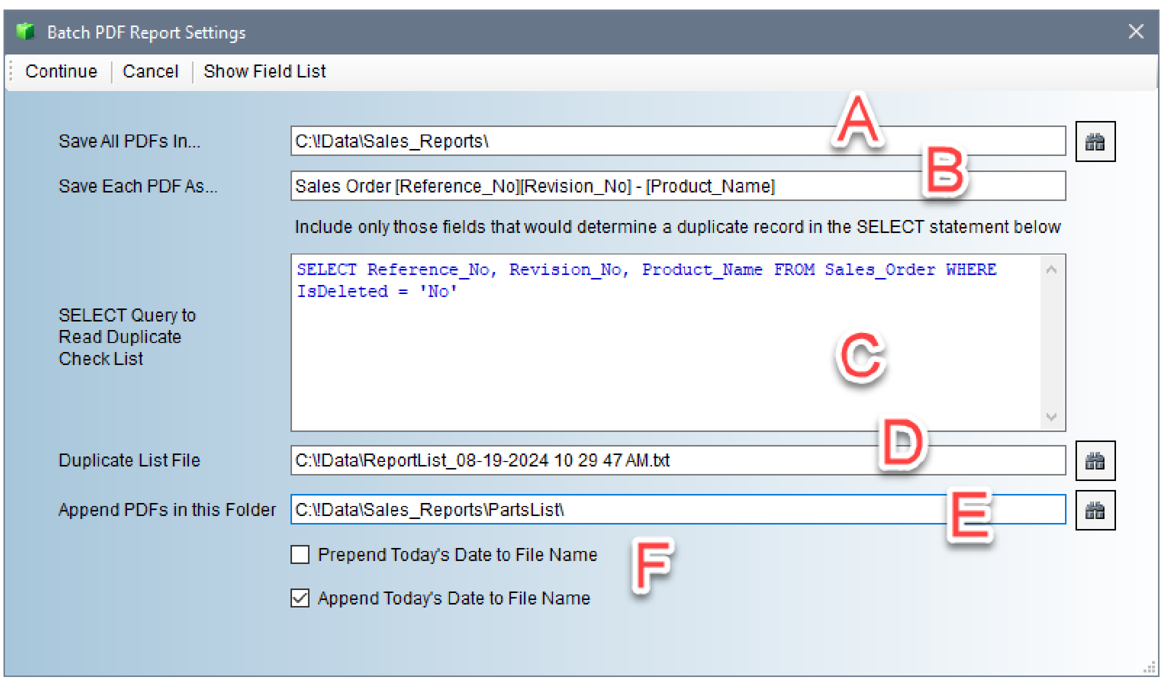
This button is enabled so you can preview the current record without having it in Edit mode. This looks at the current design (when the page is being edited) and displays the report with minimal data in the Print Preview window.

Batch Print Report

This utility uses a report design to "batch create" PDFs and save them into a local or network folder. This is helpful if you need to archive data in PDF format, for example, from a legacy system or to reduce the size of your current database.

This feature requires some specific settings:

- Source must be an MS Access, SQLite, SQL or SQL Express database type
- The report query must NOT have any prompts
- You must have "write" access to save data to the Target folder (only an issue if on a secured network)



A. Click the **Browse** button on the right side of the field to select the folder where the PDFs will be saved.
B. You can use the field names to name each report, with or without additional text. If you bracket a field name (example: [Reference_No]), the field value will replace the name when the PDF is created. In the example above, you would get a PDF named "Sales Order 100910r4 – Tires.pdf". Each file name must end up being unique, otherwise each duplicate will overwrite the original file. In our example, we know the

Reference Numbers and Revision Numbers are always unique on a sales order. When identifying which fields to use, click on the **Show Field List** button on the toolbar to display the available fields based on the query on your report.

C. In the example above, we want to be sure that no duplicates will be processed, so we defined a query to read the same fields used for the PDF filename which will create a list of possible unique file names and will be used to mark each PDF file as successfully created or duplicated. That log file is stored in:
D. This is the folder that stores the list of successful PDF files and failed duplicate files.
E. If each of the new PDF files needs to have a static page or pages appended to it, put that PDF in a folder and select the folder here. NOTE: ONLY PDFs that should be appended should be in this folder location.
F. If you want to prepend or append today's date to each file name, check the appropriate checkbox.

Reports - Custom Settings

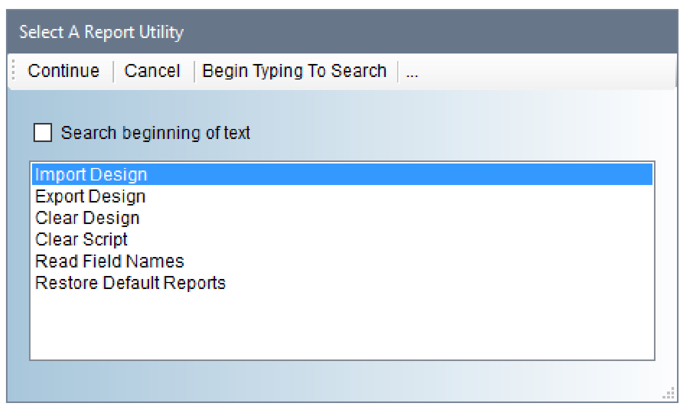
This opens the options dialog where you can set your Company information, etc., same as opening it from the Main Menu.

Set Key Field

Every record in every table in every database has a unique key, which identifies it when reading data from multiple tables. This key is stored in the same field in every table; in this application, the name of that key field is **KeyID**. If you have selected a data source that is NOT the current application (the checkbox **Use Current Connection** is unchecked), THAT data source may have a different name for its key value. Typically, this field name is read from the query when you close the **Query Builder**, and stored with the query for internal use. However, if the query fails, you can click this option to verify that the Key field name is what you expect it would be, and if not, edit it.

Designer Utilities

This displays a list of utilities only available when the record is being edited. They are:



- Import Design - This imports (and replaces) the current Layout design from a design exported from another report. Pleaste note there is no "undo" when replacing a layout.
- Export Design - This exports the layout design as an .xml file to a place on your computer, where you can use the "Import Design" option to import it into another report record.
- Clear Design - Very rarely a design may become corrupt to the point where the Layout Designer cannot be opened to correct the problem. When that happens, your only option is to simply clear the Layout all together. Click this button to do so; you'll be prompted to cancel, but once it's cleared, it's truly gone.
- Clear Script - Every layout design has some VB script (available from the "Script" button on the layout toolbar) which changes the font and shape colors according to the Report Profile you've selected, populated labels with data that needs to be aggregated or calculated as the report is built… many ways to use scripting. If something is coded incorrectly, or if the script becomes corrupt and you can no longer open the layout design, you can clear it by clicking this button.
- Read Field Names – This utility scans through the Layout design and any scripts to find the fields that have been referenced in the report. This is useful if you're getting an error on a report which may be generated

because a field has been removed from the table design. This information is listed in a Notepad window, which can be printed or saved to your computer for reference.

- Restore Default Reports – When a new database is created, the standard report designs for your application are copied into it. If for some reason one or more of them got deleted, or edited (you should always COPY a default report and edit the copy, not change an original one), you can use this utility to reload the original reports into your current database. This will not delete or replace any new reports you've created, just restore the originals, which include the report templates for printing charts.

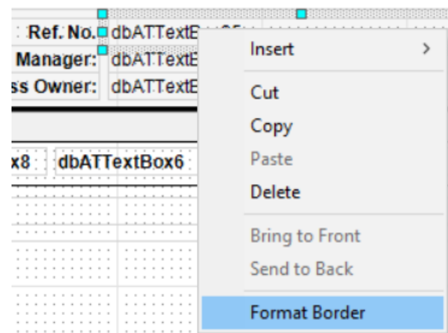
Appendix E – Tips & Tricks

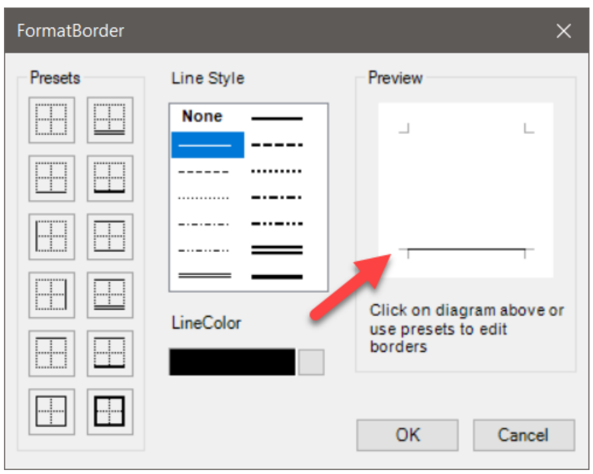
Some tips and tricks on the **Layout Designer:**

1. **Picture Control** – It's difficult to "size" a Picture control to fit every image (photo, screen shot, etc.). The control can be too narrow or short for the picture, in which case only part of the image will be displayed. To avoid that, set these properties on the Picture control:
   a. **SizeMode** = Zoom
   b. **PictureAlignment** = Center*
   c. **BackColor** = Transparent

   These settings will "zoom" the picture up or down so the entire image is visible, and center it in the control. *However, if the report looks better with images Left or Right aligned, you can change this accordingly.

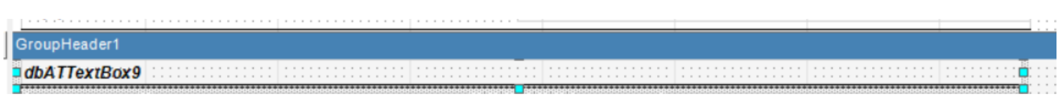
2. **Moving any control** – The layout grid is helpful when aligning controls so they look consistent, but sometimes you just need to move a control "a smidge". You can do that by selecting it, then use the arrow keys on your keyboard to move it one pixel at a time in any direction. This also applies to moving a multiple-selection group of controls.
3. **Borders** – Right-click on any control to open the Format Border utility:



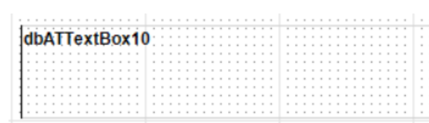


   a. Select a **Line Style**, then click on the side of the **Preview** where you want to apply it. Or you can click on one of the **Presets** to apply a standard style.
   b. Click **OK** to apply it to the selected control.

   TIP: When you have a GroupHeader field and you want to add a line under it to define the group, it's easier to simply add a border on the bottom of the field and stretch the field across the page.

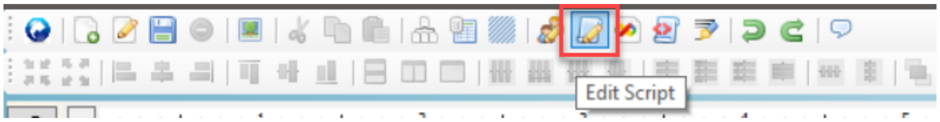


Also, if you need add vertical lines around a textbox control and the data may stretch the textbox down multiple rows, adding a border on each side of the control ensures that the lines are always the same height as the text. This is because the text will resize the control based on the text length.

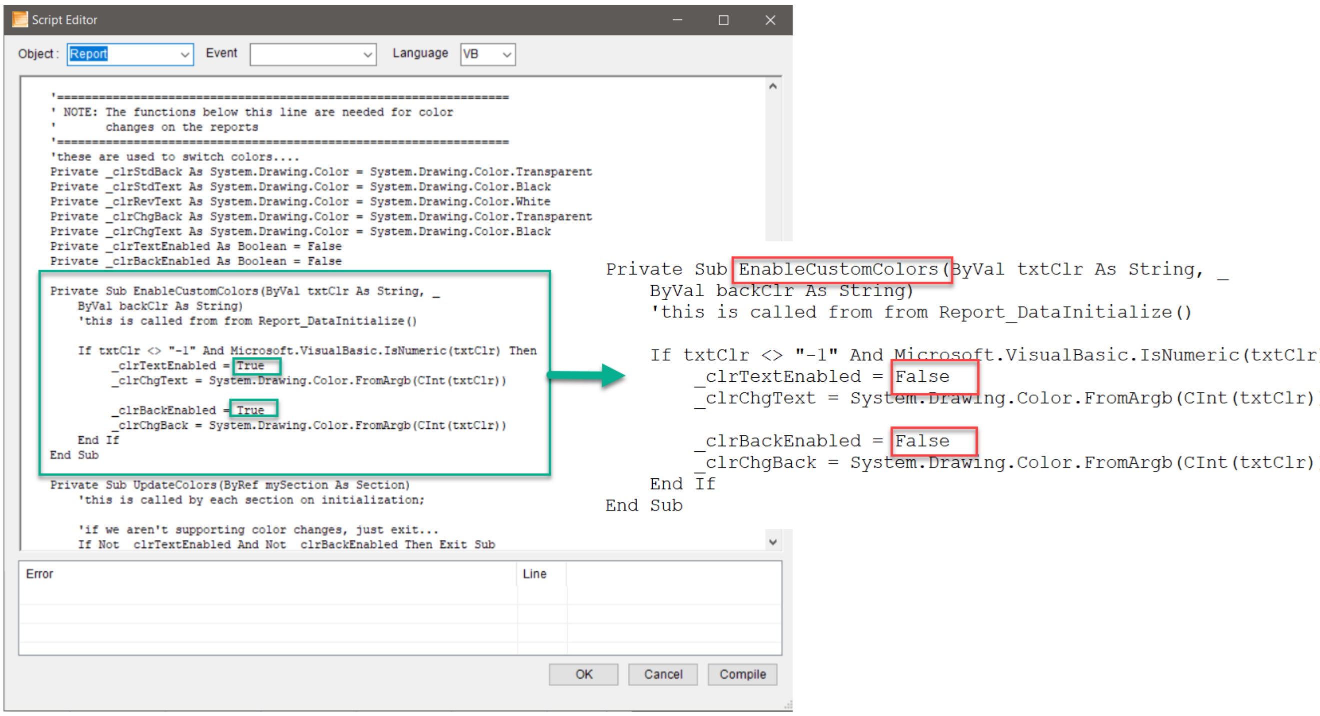


4. **Scripting Trick –** If you want to individually color labels and/or text controls that should NOT be changed when the report runs, you can disable the selections for **Color** on the report design by following these steps:

   a. Click on the **Edit Script** button on the toolbar to open the **Script Editor**:



   b. Scroll down to this function in the code: **EnableCustomColors**



   c. Change the first ‘True’ to ‘False’ to disable changing text colors.
   d. Change the second ‘True’ to ‘False” to disable changing the background colors.
   e. Click on **OK** to save the changes.

When you run the report, whatever color choices you made on the **Layout Designer** will not be impacted by the report’s **Color** option.

System & User Requirements

Phase25 Software (Phase25, LLC) products are designed to be straightforward and easy to use, with minimal administration by the customer, both on a hardware and software level. We strive to quickly resolve any and all issues regarding installation, performance and daily usage; however following these standard Requirements must be met before we can effectively do so.

General User Requirements

- Users must have an overall general understanding of how to use a computer, including but not limited to*:
  - Basic Windows skills, such as copy/paste functions and file & folder navigation in Windows Explorer
  - General Outlook email familiarity to adjust personal settings (Outlook Rules & Alerts & Mail Account settings)

User (Workstation) Hardware Requirements

- Operating Systems: Windows 10, Windows 11 (please make sure all updates and service packs are applied regularly)
- MINIMUM 8GB RAM (12GB+ Suggested). More RAM results in better performance.
- 10MB Hard Drive Space for setup and installation; additional storage required for database
- Video Resolution Minimum of 1280 x 800 (100% Resolution); settings that vary from the default proportions for your system may cause some pages to appear distorted
- Microsoft Outlook 2016 or Office 365 (for email integration & user-to-user Replication)
- High-Speed Internet Connection (for updates, remote support & user-to-user Replication)
- Other computer hardware less than 3 years old.

NOTE: All single-user licensed applications store data in a SQLite database, which is a standalone database engine widely deployed in web browsers, operating systems mobile phones and desktop systems. This database type is called *zero-conf*, which means it needs no administrative services.

Enterprise Software Requirements

Enterprise versions support multiple users by adding features such as SQL Server / SQL Server Express integration. Contact support for pricing and additional information at www.phase25.com.

For multiple user customers, we require that **one person** from within your company be designated as the Contact Person for exchanging information about updates, support issues, and any other communication with Phase25 Software regarding the training, installation and general daily operations of the software product. We do not support each user on a one-to-one basis in multi-user situations; the Contact Person within the company is responsible for mitigating on-site issues and communicating those personally to the support staff at Phase25 Software and then reporting any resolutions, update notices, etc., to the licensed users within the company.

- Supported Database Platforms (Enterprise)
  - Microsoft SQL Server 2016 or above - requires SQL Server installed and operating on a company network and is NOT included in our software packaging, installations or pricing.
  - Microsoft SQL Server EXPRESS 2014 - requires SQL Server Express 2014, which is a free product available from Microsoft's website (https://www.microsoft.com/en-US/download/details.aspx?id=42299).
  - We recommend downloading and installing the SQL Server Management Studio 2014 (free) to facilitate setting up the application login and password required by our software. Please refer to Microsoft documentation for system requirements for their products.*
- Replication Requirements (Enterprise)
  - Microsoft Outlook 2016 or above or Office 365
  - High-Speed Internet Connection
  - For Replicator Server Utilities - Windows Server NOT required (Replicator can run on a workstation); however the workstation should be an up-to-date computer with a minimum of 16GB of RAM to efficiently process replication packages for client systems.

*We provide instructions for setting up an application role login and password on SQL servers, however, we do not support the overall operations of any SQL Server products as that is the responsibility of the vendor from which it was purchased.

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