

Chapter 2.

What's your style?



Plain or fancy ...

Layout Table reports are elegant and simple to set up. Free-form reports can take on any shape. The choice is yours.

CHAPTER 2. WHAT'S YOUR STYLE?

Comparing the report styles

Comparing the report styles

Here is a side-by-side comparison of Free-form (left) and Layout Table (right) reports. Both used the Quick Report Genie as a starting point.

My Registrations by Seminar

As of: 19 November 2011

00001 Get Outta DOS
Marriott Courtyard Fort Lauderdale Plantation
Open date: 10/17/2001

Reg ID	Last Name	Reg Date	Paid Date	Number	Rate	Amt Due	Amt Pd	Bal Due
00001	Anderson	08/08/2001		2	129.00	258.00		258.00
00006	Appleton-Smith	08/13/2001	08/21/2001	1	129.00	129.00	129.00	
00007	Bush	08/06/2001	08/06/2001	2	129.00	258.00	258.00	
00038	Greenfield			4				
00003	Hatton	08/11/2001	09/01/2011	2	149.95	299.90	299.90	
00004	Hendrickson	08/23/2001		1	129.00	129.00		129.00
00005	Steele	08/05/2001	08/13/2001	1	129.00	129.00	129.00	
00002	Thompson	08/10/2001	08/14/2001	1	129.00	129.00	129.00	
Total for: 00001				14		1,331.90	944.90	387.00

00002 Get Outta DOS
Marriott Courtyard Lincoln/Red Bank
Open date: 02/09/2002

Reg ID	Last Name	Reg Date	Paid Date	Number	Rate	Amt Due	Amt Pd	Bal Due
00016	Anderson	01/20/2002	01/25/2002	1	169.00	169.00	169.00	
00022	Appleton-Smith	01/10/2002	01/10/2002	2	169.00	338.00	169.00	169.00
00010	Gleason	01/20/2002	01/20/2001	1	159.00	159.00	159.00	
00015	Gleason	01/25/2002	01/25/2002	1	169.00	169.00	169.00	
00026	Gleason	01/04/2002	01/04/2002	1	169.00	169.00		
00008	Hendrickson	01/02/2002	01/15/2002	2	159.00	318.00	318.00	
00009	Williams	01/11/2002	01/11/2002	1	159.00	159.00	159.00	
Total for: 00002				9		1,462.00	1,131.00	331.00

00003 Get Outta DOS
Marriott Courtyard Galleria
Open date: 06/07/2002

Reg ID	Last Name	Reg Date	Paid Date	Number	Rate	Amt Due	Amt Pd	Bal Due
00013		05/23/2002	05/23/2002	1	169.00	169.00		
00024	Anderson	04/12/2002	04/18/2002	5	169.00	845.00	169.00	676.00
00019	Bush	04/21/2002	04/30/2002	2	169.00	338.00	169.00	169.00
00025	Campbell	05/08/2002	05/08/2002	2	169.00	338.00	338.00	
00011	Frome	05/21/2002	05/21/2002	2	199.00	398.00		
00020	Steele	05/25/2002	05/25/2002	1	199.00	199.00		

MyRegistrations.F

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11/19/2011

Registrations by Seminar

00001 Get Outta DOS Open Date: 10/17/2001

Reg ID	Last Name	Reg Date	Date Pd	No Pers	Rate	Amt Pd	Cancelled?
00001	Anderson	08/08/2001	/ /	2	129.00		.T.
00006	Appleton-Smith	08/13/2001	08/21/2001	1	129.00	129.00	.F.
00007	Bush	08/06/2001	08/06/2001	2	129.00	258.00	.F.
00038	Greenfield	/ /	/ /	4			.F.
00003	Hatton	08/11/2001	09/01/2011	2	149.95	299.90	.F.
00004	Hendrickson	08/23/2001	/ /	1	129.00		.T.
00005	Steele	08/05/2001	08/13/2001	1	129.00	129.00	.F.
00002	Thompson	08/10/2001	08/14/2001	1	129.00	129.00	.F.
Seminar Id Total				14		944.90	

00002 Get Outta DOS Open Date: 02/09/2002

Reg ID	Last Name	Reg Date	Date Pd	No Pers	Rate	Amt Pd	Cancelled?
00016	Anderson	01/20/2002	01/25/2002	1	169.00	169.00	.F.
00022	Appleton-Smith	01/10/2002	01/10/2002	2	169.00	169.00	.F.
00010	Gleason	01/20/2002	01/20/2001	1	159.00	159.00	.F.
00015	Gleason	01/25/2002	01/25/2002	1	169.00	169.00	.F.
00026	Gleason	01/04/2002	01/04/2002	1	169.00	169.00	.F.
00008	Hendrickson	01/02/2002	01/15/2002	2	159.00	318.00	.F.
00009	Williams	01/11/2002	01/11/2002	1	159.00	159.00	.F.
Seminar Id Total				9		1,312.00	

00003 Get Outta DOS Open Date: 06/07/2002

Reg ID	Last Name	Reg Date	Date Pd	No Pers	Rate	Amt Pd	Cancelled?
00013		05/23/2002	05/23/2002	1	169.00	169.00	.F.
00024	Anderson	04/12/2002	04/18/2002	5	169.00	169.00	.F.
00019	Bush	04/21/2002	04/30/2002	2	169.00	338.00	.F.
00025	Campbell	05/08/2002	05/08/2002	2	169.00	338.00	.F.
00011	Frome	05/21/2002	05/21/2002	2	199.00		.F.
00020	Steele	05/25/2002	05/25/2002	1	199.00		.F.
00012	Thompson	04/15/2002	04/25/2002	1	199.00		.F.
00017	Williams	05/20/2002	05/20/2002	2	199.00		.F.
Seminar Id Total				16			

00004 Get Into Alpha 5! Open Date: 10/07/2001

Reg ID	Last Name	Reg Date	Date Pd	No Pers	Rate	Amt Pd	Cancelled?
00023	Appleton-Smith	08/30/2002	09/13/2002	2	269.00	538.00	.F.
00027	Appleton-Smith	06/06/2008	06/06/2008	3	765.00	765.00	.F.
00018	Bush	08/30/2002	09/15/2002	2	269.00	538.00	.F.
00014	Campbell	09/12/2002	09/12/2002	3	269.00	807.00	.F.

Registrations.T

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12/07/2011

Free-form
style

Layout Table
style

Linked Reports

Linked reports can be added to both Free-form and Layout Table reports for more detail (yellow).

Client ID	Enter Date	Last Name	First Name	MI	Company	City	State
00006	10/10/2001	Anderson	Joan	H	Anderson & Associates	Minneapolis	MN
Reg ID Seminar Title Reg Date Date Pd No Persons Rate Amt Pd							
00001	Get Outta DOS	08/08/2001		2	129.00		
00024	Get Outta DOS	04/12/2002	04/18/2002	5	169.00	169.00	
00033	Get Into Alpha 5!	03/05/2004	03/15/2004	2	550.00	200.00	
Report Total				9		369.00	
00009	12/04/2001	Anderson	William	H	Anderson & Associates	Tacoma	WA
Reg ID Seminar Title Reg Date Date Pd No Persons Rate Amt Pd							
00016	Get Outta DOS	01/20/2002	01/25/2002	1	169.00	169.00	
00029	ABC Seminars	06/22/2008	06/15/2008	1	650.00	650.00	
Report Total				2		819.00	
00007	10/14/2001	Appleton-Smith	Betsy	R	Red River Inn	Red River	TX
Reg ID Seminar Title Reg Date Date Pd No Persons Rate Amt Pd							
00006	Get Outta DOS	08/13/2001	08/21/2001	1	129.00	129.00	
00022	Get Outta DOS	01/10/2002	01/10/2002	2	169.00	169.00	
00023	Get Into Alpha 5!	08/30/2002	09/13/2002	2	269.00	538.00	
00027	Get Into Alpha 5!	06/06/2008	06/06/2008	3	765.00	765.00	
00032	Get Into Alpha 5!	05/06/2007	06/06/2007	2	550.00	1,100.00	
Report Total				10		2,701.00	

Using Alpha Anywhere

We know you are anxious to begin learning to write reports, but there is a bit of housekeeping we must do in order to be sure everyone understands how the program works. Alpha Anywhere's flexibility is one of its greatest assets, but it can be daunting for the uninitiated.

Understanding Web Components

A Web Component is code module specifically designed for the development of Alpha Anywhere web and mobile applications. There are several types, each of which “knows” how to perform certain tasks such as reading and writing to a database, acting as a menu, displaying lists and/or querying the end user, to name a few. Web Components are designed by selecting from a multitude of built-in options and/or with the use of programming languages, such as JavaScript and Xbasic.*

Web Components are used to display reports in Web and Mobile applications, which is why we are discussing them here. We will use two in this book, Grid and UX Components.

- Grid Components are used primarily in Web applications, however they can also be used on the Desktop.
- UX Components are the backbone of Mobile apps, but can also be used in Web and Desktop applications.

Understanding Workspaces

There are two workspaces. While certain elements can be used in all applications, one workspace is primarily for the Desktop and the other is primarily for Web/Mobile applications. There is crossover, however.

- The “desktop side” stores “workspace level”† reports and code that can be used in web/mobile applications.
- Web Components created on the “web/mobile side” can also be used in desktop applications.

Understanding the Control Panels

Each workspace has its own Control Panel.

CONTROL PANEL

The original is entitled simply *Control Panel* and is used primarily for desktop applications that use either native DBF tables or are linked to SQL data for use with Active- and Passive-Link Tables.‡

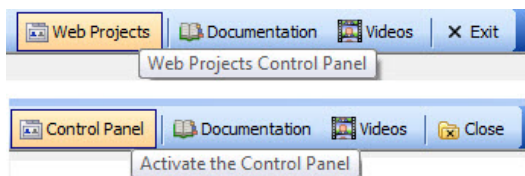
*. Xbasic is Alpha Anywhere's programming language. It is a variant of Visual Basic, but more powerful and easier to use.

†. See “Creating “project level” and “workspace level” reports” on page 13.

‡. Active- and Passive-Link Tables allow SQL users to take advantage of Alpha Anywhere's desktop design features. They are fully described in *Alpha Anywhere Made Easy* by Susan Hussey Bush. Available at www.libertymanuals.com.

WEB PROJECTS CONTROL PANEL

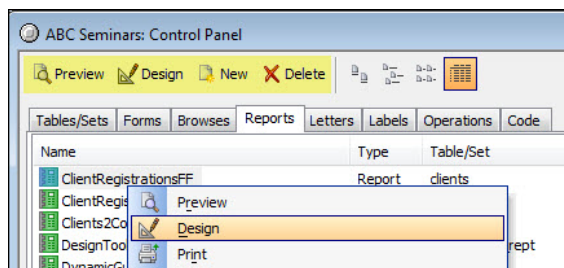
The second is entitled *Web Projects Control Panel* and is used primarily for web and mobile applications.



You can move freely back and forth between them. Even if you set your preference to one or the other at the welcome screen, both are always available.

This is important to understand because most of our lessons are based on Alpha Anywhere's DBF file type. Therefore, you will find most of the tables, sets* and samples at the *Control Panel*.

We use DBF because this book is for all users – desktop, web and mobile. The DBF format is free with your purchase of the software and using it keeps us all on the same page. Also, we can create tables and sample reports that you can use for future reference. If things don't work properly for you during a lesson, you can refer to the completed example.



SAMPLE REPORTS

Many of our instructions call for creating saving, editing and opening reports from the *Control Panel*.

- Control Panel > Reports tab*: Select the report.
- Use the buttons (yellow) or right click menu to create a new report or open an existing one in design or preview modes.

Using SQL databases to create reports

The biggest difference between DBF and SQL for creating reports is in how the data is connected. DBF is native, so the connection is automatic. For SQL, you will need to create a Connection String. This takes only a few moments and can be saved for future use. Once you have the string, connection is virtually instantaneous.[†] Reports use the same tools, regardless of file format.

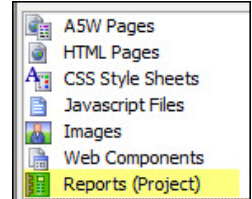
*. Sets are used by DBF to connect tables. They are similar in concept to SQL Views, but not as efficient on the web. They work well for the desktop, however.

†. We seriously considered taking the time to show you how to create a Connection String now, but feel it will be more appropriate a bit later on when we can also show how to use it to create a report. If you can't wait, you can head over to page 190, look it over and then come back here.

Creating “project level” and “workspace level” reports

PROJECT LEVEL

If you are using *SQL for web/mobile applications*, you can create reports directly from the *Web Projects Control Panel* and save them in the Project Folder. This is referred to as a “project level” report. It will be visible with the other files in the web project, but will not appear at the *Control Panel*.



WORKSPACE LEVEL

DBF reports may only be created and stored at the *Control Panel*. These are called “workspace level” reports. They can be opened from both desktop forms and web components.

If you are using SQL for Active- and Passive-Link Tables, you may create the reports at the *Control Panel*, in which case they will be available for both desktop and web/mobile applications.

Tables/Sets Forms Browsers Reports Letters Labels Operations Code		
Name	Type	Table/Set
ClientRegistrationsFF	Report	clients
ClientRegistrationsLT	Report	clients
Clients2Column	Report	clients

Opening completed reports

The difference in how reports are opened depends on whether they are to be used for desktop, web or mobile.

WEB / MOBILE

On the web/mobile side, one establishes settings in Web Components that generate a suitable display with buttons or hyperlinks that usually “print” to a PDF or HTML file.

DESKTOP

In most cases, one puts a button on a form that opens the report for previewing or printing.*

- Now, we can move on to reports!

Learning Report Basics

If you are new to Alpha Anywhere, you may have already looked at the report editor and might be feeling overwhelmed because its interface can be puzzling at first glance. Not to worry – we’ll show you how all fits together.

There are two types of reports, Layout Table and Free-form. As is to be expected, each has its advantages. The screen shots on page 10 illustrate the difference in the types of report they create.

*. BTW – you can use most web components on the desktop, too. However, you cannot use a desktop form for web/mobile.

As we said earlier, our lessons will use DBF files. However, all exercises are fully compatible with SQL file types, as well.

FREE-FORM REPORTS

Free-form is the classic style. It is very powerful and is excellent for printed and PDF reports due to its flexible format. Can be used with Linked Reports and Sub-Reports.

LAYOUT TABLE REPORTS

Layout Table is a more recent report style. While it can be used as a stand alone report, its primary use is for exporting data to Excel. It also serves as a basis for Linked Reports (see below).

SUB-REPORTS

Only Free-form reports can have Sub-reports. The example at right lists cancellations for all seminars (yellow).

The screenshot shows a report titled "ABC Seminars" with the subtitle "Marriott Courtyard Galleria" and "Open date: 05/01/2009". It contains a table with columns: Reg ID, Last Name, Reg Date, Paid Date, Number, Rate, Amt Due, Amt Pd, and Bal Due. The data rows show a total of 67 registrations with a total amount due of 19,663.90. Below the main table is a sub-report titled "Cancelled registrations" which lists two entries: "Hendrickson, Mary G" and "Anderson, Joan M", both with Seminar ID 00001. The report footer indicates "Page 2 of 3" and the date "12/10/2011".

Reg ID	Last Name	Reg Date	Paid Date	Number	Rate	Amt Due	Amt Pd	Bal Due
00006	Steele	02/05/2009	02/05/2009	5	750.00	3,750.00		3,750.00
Total for: 00007						3,750.00	0.00	3,750.00
Report Total						19,663.90	11302.90	8,361.00

Name	Seminar ID
Hendrickson, Mary G	00001
Anderson, Joan M	00001

LINKED REPORTS

Linked Reports are a type of sub-report with even more functionality than standard ones because their calculations can be added to the main report. This style can be used in both Free-form and Layout Table reports (yellow on page 10). They are created using the Layout Table style.

QUICK REPORT GENIE

The Quick Report Genie is a great starting point for both Free-form reports and Layout Table reports. It is actually a report itself, with complete print, preview and email features that can also be saved for future use.

LETTERS, LABELS & ENVELOPES

Let's not forget snail mail! You can easily prepare personalized letters and send them on their way with labels and envelopes.

Our study will begin with the Quick Report Genie. We will use it as the basis for a Free-form report which, in turn, will show the fundamentals of the Report Editor. Then we will move on to Layout Tables, Sub-Reports, Linked Reports and other layouts like Letters.

Understanding the Quick Report Genie

COMPLETED REPORTS

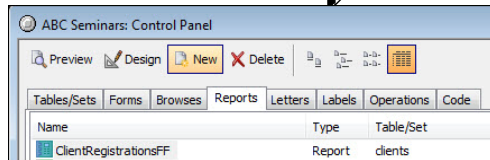
- The examples for this section are *QuickFreeForm* and *RegFreeForm*.

The Quick Report Genie makes the initial selection of fields and groups very simple. First, we will go over the elements and then we will use it to create both report styles. While it is not required – you can go straight to the Report Editor – once you have used the genie, it is sure to become your first step in report design.

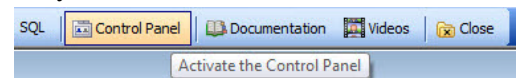
My Registrations by Seminar			
00001			
Reg ID	Last Name	Reg Date	Paid Date
00001	Anderson	08/08/2001	
00006	Appleton-Smith	08/13/2001	08/21/2001

• Reports are organized into sections. We'll go into them in detail later, but the screen shot at left gives a quick overview. Most reports will have a title, many have one or more groups (in this case, the attendees are organized by seminar) and almost all reports have a detail section that lists the data (in this case, a list of persons attending the seminars).

1. *Control Panel > Reports Tab*: Click the **New** button.



• If you have been using Alpha Anywhere for web applications only, click *Control Panel* on the main toolbar. It will take you to the “desktop” side of Alpha Anywhere.



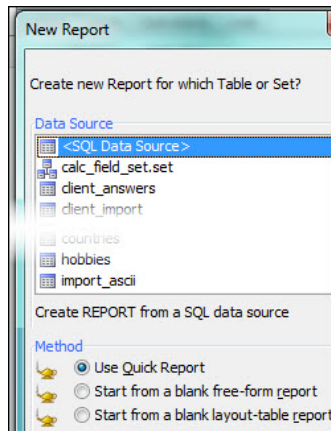
Selecting the Data Source

The first thing Alpha Anywhere needs to know is where to find the data. It can be from a remote database or a local table or set.

• **SQL files**: If the <SQL Data Source> option is selected, you will be prompted to define the Connection String. As noted earlier, this will be explained in Chapter 8.

• **DBF files**: Since we will use the DBF tables and/or sets* in most of our examples, we will pick from the list.

Dialog: New Report



2. *Data Source*: Choose **registration_rept.set**

3. *Method*: Choose **Use Quick Report**. (Click OK)

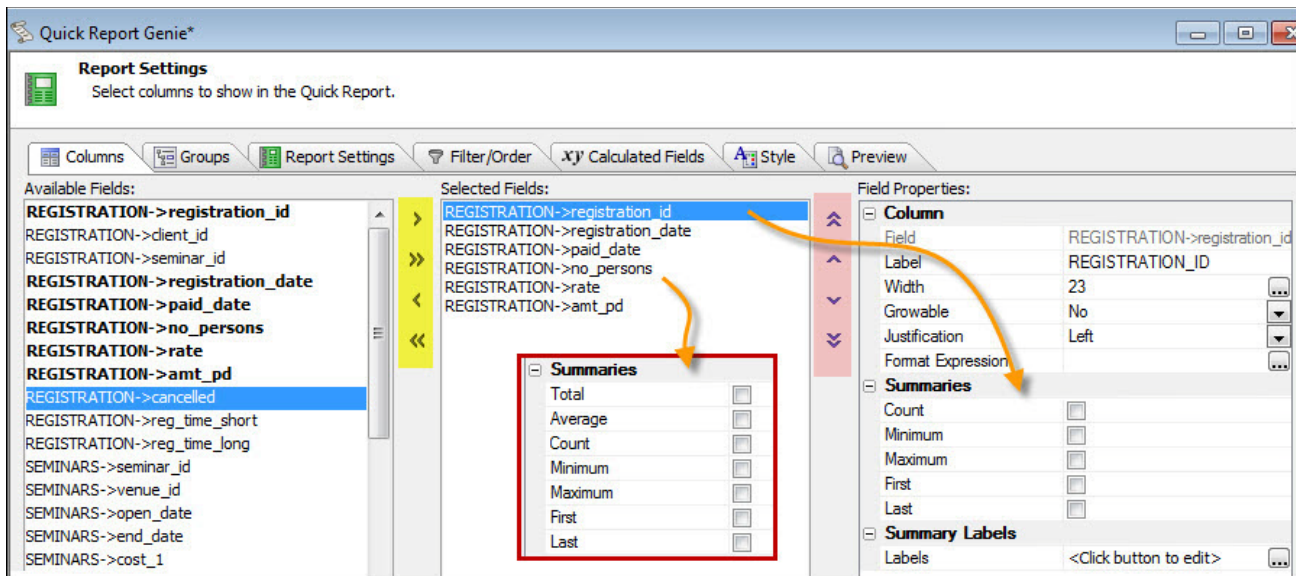
• The Quick Report Genie opens. It has seven tabs, *Columns*, *Groups*, *Report Settings*, *Filter/Order*, *Calculated Fields*, *Style* and *Preview*.

Understanding the Columns tab

Available Fields contains the fields in the table/set. They will become columns in the report.

*. Sets are combinations of tables.

4. Click the **Columns** tab.



SELECTING FIELDS FOR REPORT

You can select a single field or use **SHIFT + CLICK** or **CTRL + CLICK** for groups of fields. Add the selection(s) to the Selected Fields window by double clicking or using the arrows (yellow above).

5. Double click on **Registration -> Registration_ID** to place it in the Selected Fields window.
 - Registration -> indicates the name of the table.

COLUMN LABELS

Alpha Anywhere automatically enters the name the field as the name of the column label. Often this can be shortened.

6. *Selected Fields:* Select the **Registration -> Registration_Id** field and change its properties as indicated below.

PROPERTIES: REGISTRATION -> REGISTRATION_ID

COLUMN

- Label:* Change default to **Reg ID**.

WIDTH OF COLUMN

Take the following into consideration when determining the width of the column (aka field). In many cases, you will need to experiment.

- Default:* Sized large enough to accommodate the field name that appears as the label. Often this can be shortened.
- You can override manually.
- If you plan to use totals, allow enough width to accommodate them. If you format them (see below), allow for commas.

PROPERTIES: REGISTRATION_ID

COLUMN

- Width:* Click the button and choose **Size to Fit**.
 - Read the following and then click OK.
 - Notice the *Size all Columns to Fit* button.

- If you plan to change the labels, do that first before choosing *Size all Columns to Fit*.

SIZE TO FIT GENIE

The *Size to Fit* genie can automatically size one or all columns.

Our experiments with *Size to Fit* produced mixed results, working well sometimes, but not others. Below is a comparison of manual sizing and *Size all Columns to Fit*.

The image shows two side-by-side report preview windows. The left window is titled 'Manual sizing for each column' and shows a report with columns: Reg ID, Last Name, Reg_Date, Paid Date, Number, Rate, and Amt Pd. The right window is titled 'Size to Fit for all columns' and shows the same report with columns automatically sized to fit the data. An arrow points from the 'Size all Columns to Fit' button in the 'Set Column Width' dialog to the 'Size to Fit for all columns' report.

Manual sizing for each column

Reg ID	Last Name	Reg_Date	Paid Date	Number	Rate	Amt Pd
00001	Anderson	08/08/2001		2	129.00	
00006	Appleton-Smith	08/13/2001	08/21/2001	1	129.00	129.00
00007	Bush	08/06/2001	08/06/2001	2	129.00	258.00

Size to Fit for all columns

Reg ID	Last Name	Reg_Date	Paid Date	Number	Rate	Amt Pd
00001	Anderson	08/08/2001		2	129.00	
00006	Appleton-Smith	08/13/2001	08/21/2001	1	129.00	129.00
00007	Bush	08/06/2001	08/06/2001	2	129.00	258.00

FORMAT EXPRESSION

There are builders that make formatting easy. Alpha will offer formatting options depending on the field type. In this case, you will see numeric options.*

The image shows the 'Field Properties' dialog for the 'Rate' field. The 'Format Expression' is set to `alltrim(str(convert_type(<value>,"N"))`. Below it, the 'Display Format' dialog is open, showing the 'Display Format' field with the expression `alltrim(str(convert_type(<value>,"N") ,250,2,"",B"))`. The 'Pre-Defined Formats' list is also visible, showing various numeric formatting options.

7. *Available Fields*: Double click **Registration** -> **Rate** to add to Selected Fields.

PROPERTIES: REGISTRATION -> RATE
COLUMN

- *Format Expression*: Click the button.

- Click the **Select Pre-Defined Format** button.
- Choose **123,456.78 (blank if zero)**.
- Click OK twice.
- Alpha Anywhere enters the expression:
`alltrim(str(convert_type(<value>,"N"),250,2,"",B"))`.

SUMMARIES

Adding a summary (total, count, etc.) is as simple as making a selection.

PROPERTIES: REGISTRATION -> RATE
SUMMARIES

- *Total*: **Yes**.

*. This particular builder was originally developed for web applications. That is why the expression is written in JavaScript, not Xbasic.

SUMMARY LABELS

This setting applies to the group and report summaries, *not the individual fields*. No matter which field you select, you will get the same dialog.

If you have groups on your report (see page 19), the label identifies it as “Seminar Id Total.”

- You can accept the default or return here to create your own AFTER the Groups have been defined.
- You can also change the summary title for the report here (default = Report Title). See “Previewing the report” on page 18.

Now that you understand how the fields are added and properties are defined, we are ready to complete the selections.

8. Use the following chart to select fields and their properties.
9. Also, place them in this order by using the up and down arrows to the right of Selected Fields.

Table	Field	Label	Width	Justify	Format Expression	Summary
Registration	Registration_ID	Reg ID	Size to Fit	Left		
Clients	Last_Name	Last Name	25	Left		
Registration	Registration_date	Reg Date	15	Left	12/31/04	
Registration	Paid_date	Pd Date	15	Left	12/31/04	
Registration	No_Persons	Number	10	Center		Total
Registration	Rate	Rate	14	Right	123,456.78 (blank if zero)	Total
Registration	Amt_Pd	Amt Pd	14	Right	123,456.78 (blank if zero)	Total

Previewing the report

After you have filled in the fields and their properties and ordered the selections, it will be time to take a quick look at the report definition.

Reg ID	Last Name	Reg Date	Pd Date	Number	Rate	Amt Pd
00004	Hendrickson	08/23/01		1	129.00	
00002	Thompson	08/10/01	08/14/01	1	129.00	129.00
00005	Steele	08/05/01	08/13/01	1	129.00	129.00
00001	Anderson	08/08/01		2	129.00	
00006	Appleton-Smith	08/13/01	08/21/01	1	129.00	129.00
00007	Bush	08/06/01	08/06/01	2	129.00	258.00
00003	Halton	08/11/01	09/01/11	2	149.95	299.90
00036	Steele	02/05/09	02/05/09	10	750.00	
00037	Johnson	09/08/02	09/08/02	1	250.00	250.00
Report Total				68	9,009.95	11,302.90

- The report can be previewed any time after you have added at least one column (field).

10. Click the **Preview** tab.

- If the report is too small to see, click on it to expand the view.

11. Scroll to the bottom to see the summaries (yellow).

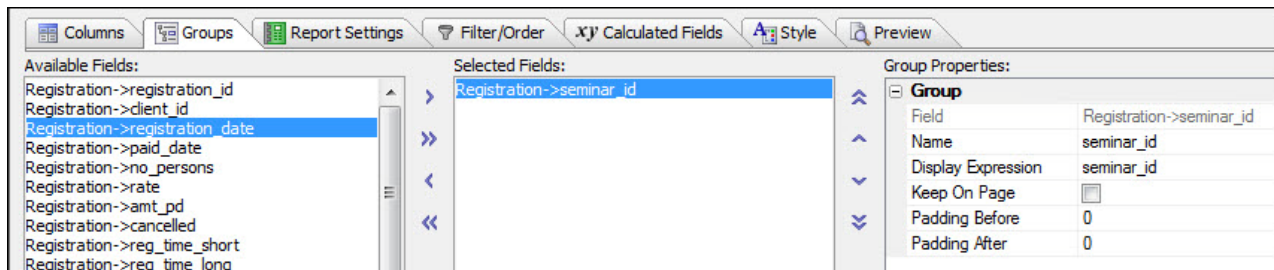
- Note that since there are no groups, Alpha inserts “Report Title” as the label for the summary.

- Next, we will enter a group.
- 12. Click the **Groups** tab.

Understanding the Groups tab

Groups organize the report and make it easier to read. In this case, we will group the records by seminar, based on the seminar_id field.

- 13. Double click on **Registration -> seminar_id** to *move* it to Selected.
- Field selection for groups follows the same process as for columns. However, this time, instead of being bolded in *Available Fields*, the field is removed from the list.



The properties options are as follows:

- **Field:** The name of the field.
- **Name:** Used in summary expressions. Recommend keeping the default. Cannot be blank. No spaces allowed.
- **Display Expression:** This will appear in the Report Editor to identify the group. Recommend keeping the default. Cannot be blank. No spaces allowed.
 - Alpha Anywhere will automatically capitalize and remove the underscore (_) for labels. In other words, Seminar_ID will become Seminar ID.
- **Keep on page:** Requires entire group to be on the same page, often requiring new group to start on next page. Test result at Preview tab.
- **Padding before and after:** Adds spaces before and/or after group.

DISPLAY EXPRESSION

As we said above, we recommend that you accept the default for Display Expression. In this case, however, we will edit the case so you can better see where it appears in the Report Editor (see “Writing summary expressions” on page 78).