Creating Custom Reports

GrantWave includes a vast array of reports ready for immediate use. You can alter the formatting for these reports using the instructions in the Reports help section. GrantWave also allows you to create your own reports for review and export. **This section, however, covers the creation of *custom reports*.**

This help section introduces the architecture of reports, as well as various toolbars and other options. **If you have questions about custom reporting, please contact us at info@mindcoast.com**. Custom reports can also be designed for you; please contact us for an estimate.

Architectural Overview

To fully facilitate GrantWave's reporting capabilities, a basic understanding of the underlying data model is helpful. GrantWave uses a relational database to organize its data.

There are five major *parent* tables, each reflecting a main module in GrantWave. The tables are Organizations, Programs, Grants, Contacts, and Grantors. These tables can reference additional tables like Activities, Objectives, Tasks, Budget, etc. To pull data from these tables into a report, you must decide what the parent table is. The parent table defines the *source* of the data => see filter conditions.

For example, Activities can be pulled for Organizations, Programs, and Grants. The first displays all activities defined in the organization module, the second displays the activities of a certain program, and the last displays all activities of a certain grant.

To make report creation as simple as possible without sacrificing performance, GrantWave introduces the concept of Master and Simple Reports.

Master Reports

A Master Report is a pre-programmed report that recursively iterates over all organizations: all programs for each organization and then over each grant for each program for each organization.

For example, if you have two organizations in your database, you might get the following output in a master report:

Organization 1
    Program 1
        Grant 1
        Grant 2
    Program 2
        Grant 3
    Program 3
        Grant 4
        Grant 5
Organization 2
    Program 4
        Grant 6
    Program 5
        Grant 7
        Grant 8
    Program 6

This scheme allows you easily to gather all of the information in your system into a single report.

Since most times you are only interested in a ***certain part of your data***, GrantWave's filter capabilities allow you to reduce the report to a certain organization, a certain program, and even a certain grant. Please see the Filter Section for more details.

Contact- and Grantor Reports

A Contact or Grantor reports iterates over contacts or grantors, respectively. Filters allow limiting the data to certain criteria.

Single Reports

Single Reports come in three different distinctions: Simple-, Selection- and Component Reports.

A Simple Report is called simple report because it only iterates over a single data table, e.g. activities, goals, budget, etc.

A Selection Report iterates a Letter of Inquiry and offers a specialized filter to select the desired letter of inquiry.

A Component Report is the same as a single report. The only difference is that a component report is not intended to be used as a stand alone but rather as a sub report in a Master Report.

Single Reports as Sub Reports

All single reports can be inserted into other reports. They become *sub reports* to the containing, parent report. Report nesting is only limited by your system resources, but most the time you will only use one or two levels of nesting.

Example

Let's nest a simple report displaying 'Activities' into a master report:

Organization Info
    Program Info   this is the Master Report
        Grant Info
            Simple Report 'Activity'   this is the nested sub report

Going back to the previous example, you might get the following output (assuming that only grant 1, 4, 5, and 6 have Activities attached to it).

Organization 1
    Program 1
        Grant 1
            Activity 1
            Activity 2
        Grant 2
    Program 2
        Grant 3
    Program 3
        Grant 4
            Activity 3
        Grant 5
            Activity 4
            Activity 5
Organization 2
    Program 4
        Grant 6
            Activity 6
    Program 5
        Grant 7
        Grant 8
    Program 6

In case you would like a different report where you would like to see the program's activities instead of the grant's activities, you would simply insert the Activity Report into the Program section of the master report:

Organization Info

Program Info
Simple Report "Activity" (this is the nested sub report)
Grant Info

This would display the activity for the program instead of the grant. If you're not interested in the grant information, you could remove the Grant Info altogether.

Going back to our previous example would produce the following output:

Organization 1
Program 1
All Activities to this program
Grant 1
Grant 2
Program 2
All Activities to this program
Grant 3
Program 3
Activities to this program
Grant 4
Grant 5
Organization 2
Program 4
All Activities to this program
Grant 6
Program 5
All Activities to this program
Grant 7
Grant 8
Program 6
All Activities to this program

You can also insert a simple activities report on the program level and the same activities report on the grant level. This would displays all program activities first and then all the activities to each grant.

Important: Everything described here works exactly the same for the organization level.

For example, to get the most comprehensive activity of your organization, you could enter one activity report into the organization, program, and grant section each. You would get the following output:

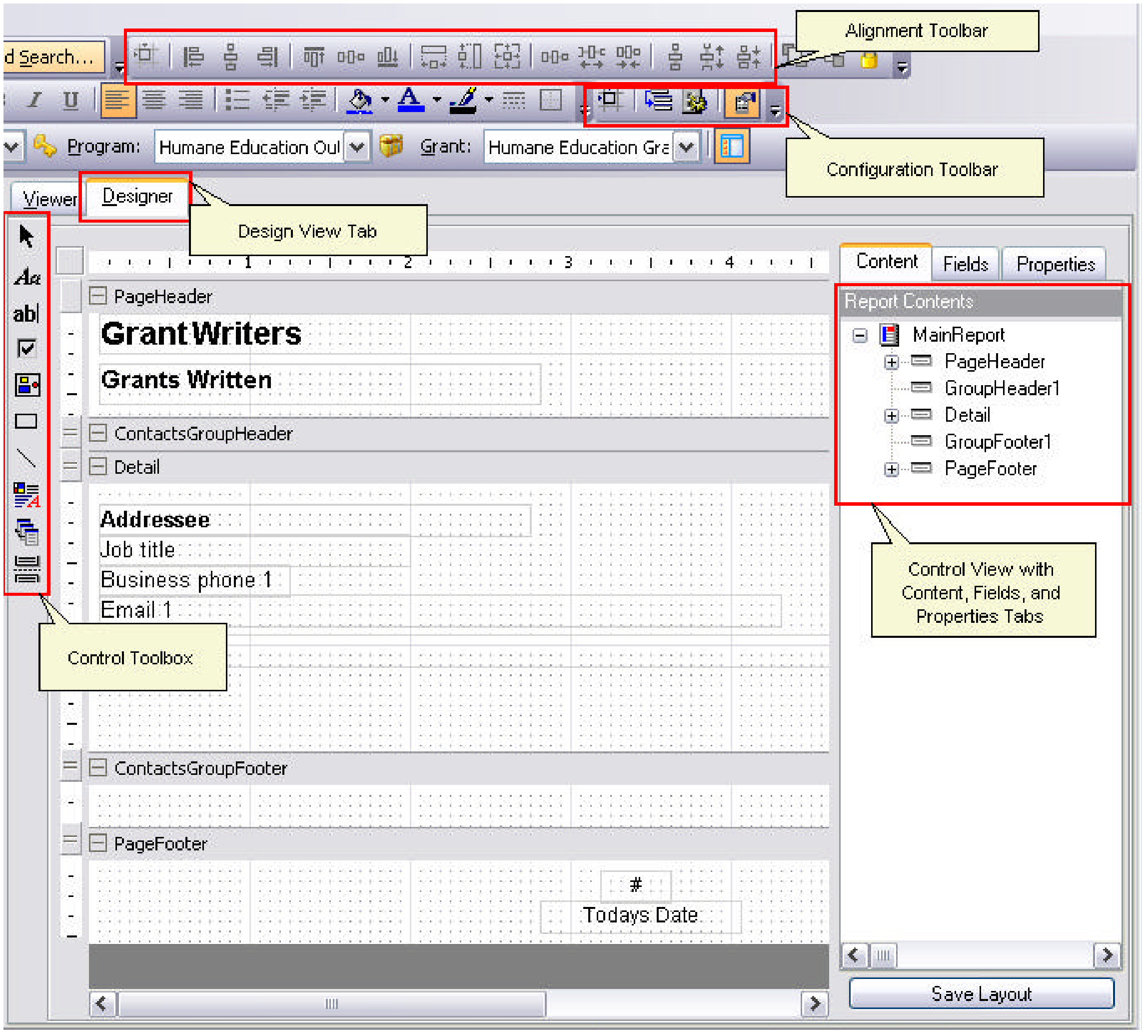
Organization 1
All activities to this organization 1
Program 1
All activities to program 1
Grant 1

All activities to grant 1
Grant 2
All activities to grant 2
Program 2
All activities to this program 2
Grant 3
All activities to grant 3
Organization 2
All activities to this organization 2

Overview of the Report Designer

The Designer View contains the following components:

- The Alignment Toolbar
- The Format Toolbar
- The Configuration Toolbar
- The Control Toolbox
- The Design View
- The Controls Panel (Control View with Content, Fields, and Properties Tab)



The Alignment Toolbar

The alignment toolbar helps to resize controls, aligns two or more controls to each other, and brings them to the front or sends them to the back.

- **Align to Grid**
  Aligns items to a grid
- **Align Lefts**
  Aligns all selected controls to the left of the last selected control
- **Align Centers**
  Aligns all selected controls to the center of the last selected control
- **Align Rights**
  Aligns all selected controls to the right of the last selected control
- **Align Tops**
  Aligns all selected controls to the top of the last selected control
- **Align Middles**
  Aligns all selected controls to the middle of the last selected control

- **Align Bottoms**
  Aligns all selected controls to the bottom of the last selected control
- **Size Same Width**
  Adjust the horizontal size of all selected controls to the horizontal size of the last selected control
- **Size Same Height**
  Adjust the vertical size of all selected controls to the vertical size of the last selected control
- **Size Same Both**
  Adjust the size of all selected controls to the size of the last selected control
- **Make Horizontal Space Equal**
  Makes the horizontal space between all selected controls equal
- **Increase Horizontal Space**
  Increases the horizontal space between all selected controls equally
- **Decrease Horizontal Space**
  Decreases the horizontal space between all selected controls equally
- **Make Vertical Space Equal**
  Makes the vertical space between all selected controls equal
- **Increase Vertical Space**
  Increases the vertical space between all selected controls equally
- **Decrease Vertical Space**
  Decrease the vertical space between all selected controls equally
- **Bring to Front**
  Brings the control to the front
- **Send to Back**
  Sends the control to the back
- **Lock**
  Lock the layout preventing it from resizing and rearrangement

The Format Toolbar

- **Font**
  Drops down a combo box to select a font
- **Font Size**
  Drops down a combo box to select a font size
- **Style**
  Drops down a combo box to select a style sheet. Style Sheets are defined in the Style Sheet tab of the Settings dialog. See Configuration Toolbar for more info.
- **Bold**
  Sets the bold typeface on or off
- **Italic**
  Sets the italic typeface on or off
- **Underline**
  Sets the underline typeface on or off
- **Align Left**
  Aligns the text left in the control area

- **Align Center**
  Aligns the text centered in the control area
- **Align Right**
  Aligns the text right in the control area
- **Bullets**
  Adds bullets to the text in the RichText control area
- **Decrease Indent**
  Decreases the indent of the text in the RichText control area
- **Increase Indent**
  Increases the indent of the text in the RichText control area
- **Fill Color**
  Selects the fill (background) color of a control. Clicking the little arrow on the right drops down a color selection dialog
- **Font Color**
  Selects the font (foreground) color of a control. Clicking the little arrow on the right drops down a color selection dialog
- **Line Color**
  Selects the color of a line control. Clicking the little arrow on the right drops down a color selection dialog
- **Line Style Selection Dialog**
  Opens the Line Style Dialog for a line control
- **Format Border**
  Opens the Format Border dialog for a control

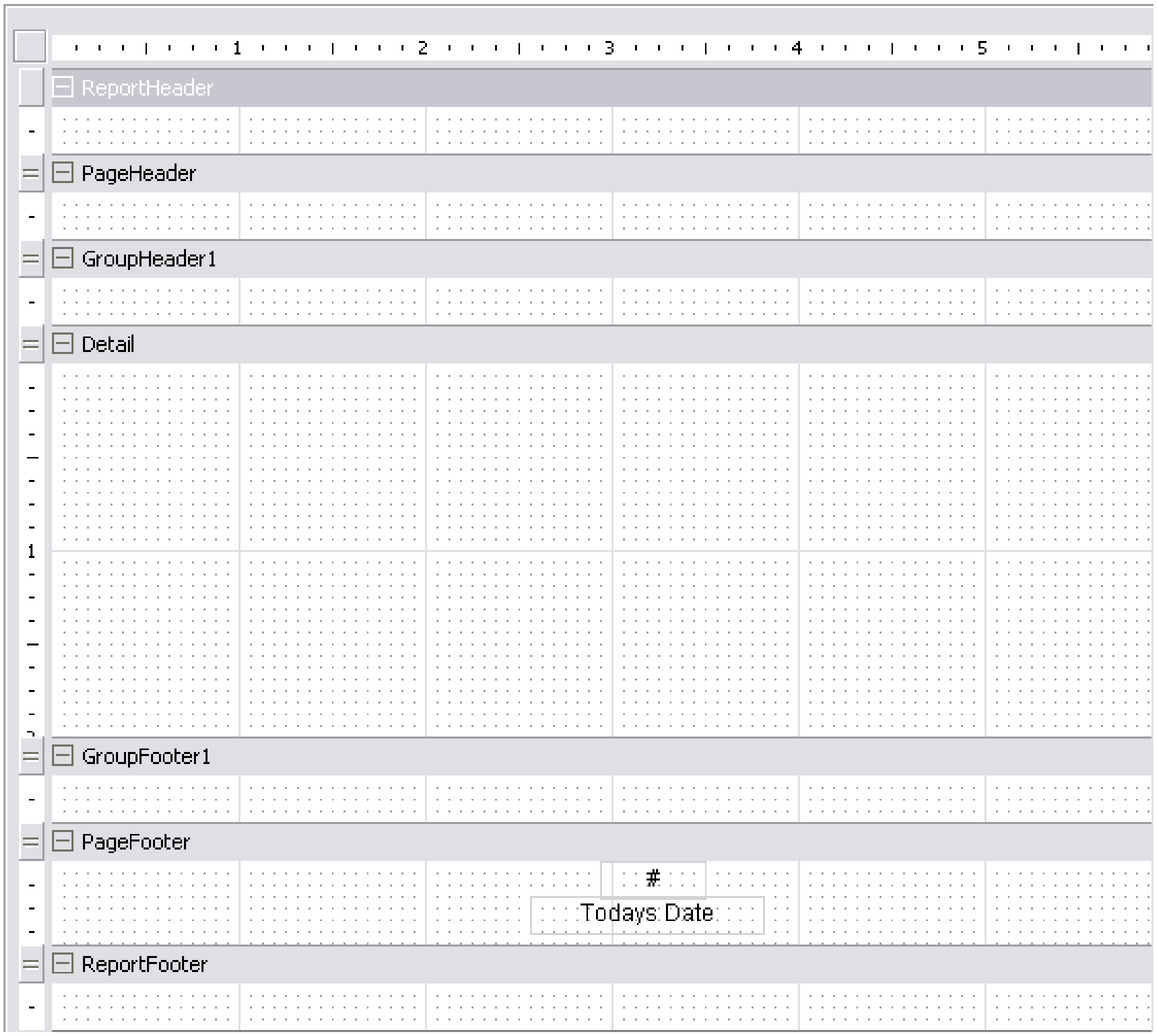
The Configuration Toolbar

- **Grid**
  Turns the grid display on/off
- **Group Reorder**
  Displays the group reorder dialog
- **Settings**
  Displays the settings dialog to set Page Setup, Printer Settings, Styles, and Global Settings
- **Controls Panel**
  Turns the Controls Panel view on/off

The Viewer

The Viewer displays the layout of the current report. A report consists of different sections. Each section can contain controls to render the report. The most common controls are labels, text boxes, and sub reports.

A report section contains a group of controls that are processed and printed at the same time as a single unit. A report includes the following section types:



Report Header
A report can have **one report header** section that prints at the beginning of the report. This section generally is used to print a report title, a summary table, a chart or any information that needs only to appear ***once*** at the report's start.

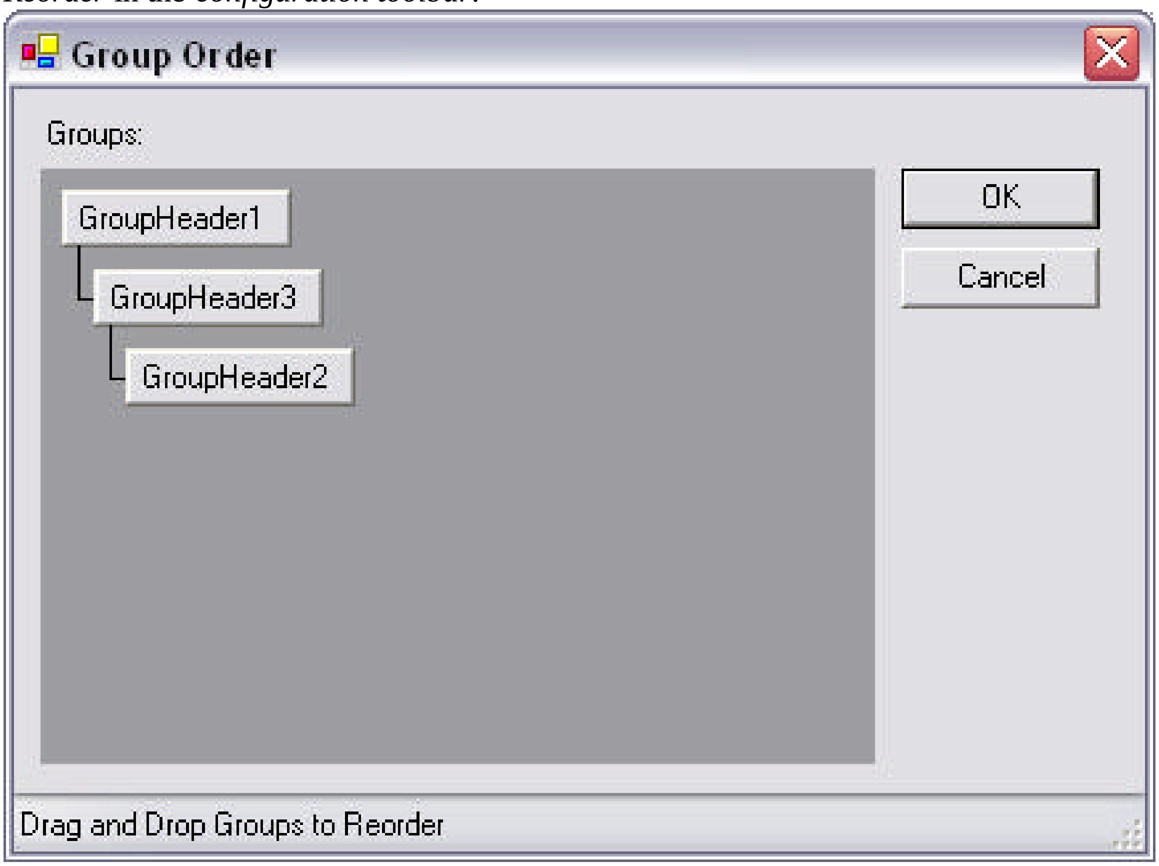
Report Footer
A report can have **one report footer** section that prints at the end of the report. This section is used to print a summary of the report, grand totals or any information that needs to print ***once*** at the report's end.

Page Header
A report can have one page header section that prints at the top of each page. It is the first section that prints on the page except when the page contains a report header section. The page header section is used to print column headers, page numbers, a page title or any information that needs to appear at the top of each page in the report.
Note: Binding controls to a page header is not recommended, as results may be unpredictable.

Page Footer
A report can have one page footer section that prints at the bottom of each page. It is used to print page totals, page numbers or any other information that needs to appear at the bottom of each page.

Group Header/Footer
A report can consist of single or multiple nested groups, with each group having its own header and footer sections. The header section is inserted and printed immediately before the *Detail section*. The footer section is inserted and printed immediately after the *Detail section*.

Additional Group Headers and Group Footers can be added by right clicking anywhere in the report layout and choosing the desired section from the Insert submenu.
Groups can be reordered in the Group Order dialog. To open the dialog select *Reorder Groups* from the context menu (right click in the layout view) or by clicking *Group Reorder* in the *configuration toolbar*.



Detail
A report has one *Detail section*. The detail section is the body of the report and one instance of the section is created for each record in the report.

The Control Toolbox

- **Label**
  Inserts fixed text label into the report and can be bound to a database field.
- **Textbox**
  Inserts a textbox into the report. A textbox can be bound to a database field. A textbox provides greater formatting capabilities than a label.
- **Checkbox**
  Inserts a checkbox into the report and can be bound to a boolean database field.
- **Picturebox**
  Inserts a picturebox into the report and can be bound to an image database field.
- **Shape**
  Draws a rectangular shape in the report
- **Line**
  Draws a line in the report
- **Rich Textbox**
  Inserts a rich textbox into the report. A rich textbox can be bound to a rich text database. Rich text contains formatting information.
- **Page Break**
  Inserts a page break into the report. A page break forces a page break in the generated report.

The Control View

The Control View includes three tabs and a button:

- **The Content View**
  The Content View displays an outline of the report structure of the current layout. Every report contains at least a Page Header, Details, and a Page Footer. Each section can contain additional controls. Selecting a node in the content tree selects the corresponding control in the layout.
- **The Fields View**
  The Field View consists of a combo box and a list box. The combo box contains all available database tables, all simple reports, and common expressions. Selecting an entry in the combo box populates the list view. Selecting a database table in the combo box displays all the data fields of this table. Selecting Simple Reports displays a list of all single reports and selecting common expressions displays a list of commonly used expressions (here for current date display). Items can be dragged and dropped from the list view into the report layout. To insert an item select a control in the list and hold the left mouse button down. Then move the mouse into the designer view and release the left mouse button.
- **The Properties View**
  The Properties View consists of a combo box and a property grid. The combo box displays the currently active control. Select a different control by clicking a control in the layout view or by using the drop down menu. The property grid displays all the attributes of the current active control and allows changes to them. The property grid gives a brief description of each control at the bottom of the property grid.

- **Save Layout button**
  Saves any changes of the current layout to the database. If the edited report is a default (default reports can't be edited) GrantWave pops up a dialog to enter a new name for the report.

Advanced Features

- Field Look Up
- Using Field Expressions
- Special Address and Name handling
- Output Formatting
- Report Formatting
- Crosslinking

Field Look Up

Certain tables reference other tables, i.e. the table *Tasks* references *Contact* and *Grantor* tables through its foreign keys *ContactID*, *InitiatorID*, and *GrantorID.* The foreign key of the table task is used to look up the actual field values in the referenced table Contact or Grantor.

To perform this look up, GrantWave needs to know the name of the referenced table and the name of the field to look up. GrantWave uses the *Tag* property to specify this information.

Most times you can just drag and drop a field from the field table view onto the layout. The *DataField* and *Tag* are set automatically as necessary. GrantWave uses the reference's *Addressee* field as default value. To display other fields, just overwrite the Address section of the *Tag* property.

The *DataField* property specifies the parent table and the foreign key to the reference table. The syntax is as follows:
[Parent Table].[Foreign Key]
Examples
Task.ContactID
Task.GrantorID
Programs.ProgramManagerID

The *Tag* property specifies the look up table and the lookup field. The syntax is as follows:
[Reference Table].[Look up Field]
Examples:
Contact.SaveAs
Contact.Name
Grantor.City
Grantor.State

The following expression can be used for the look up field to create combined fields:

- ValueField
  Default value for table look ups
- ValueShort
  Can be used to look up states to use 2 letter abbreviation instead of full name
- NameFL
  Combines first and last name into single output
- NameFML
  Combines first, middle, and last name into single output
- NameFMLS
  Combines first name, middle name, last name and name suffix into single output
- NameTFMLS
  Combines title, first name, middle name, last name and name suffix into single output
- AddressCityStateZip
  Combines City, State, and ZIP code into single output

Examples:

- Print the initiator's first name of a task
  DataField: *Task.InitiatorID*
  Tag: *Contact.Firstname*
- Print the contact's first and last name of a task
  DataField: *Task.ContactID*
  Tag: *Contact.NameFL*
- Print the receiver's address of an inquiry
  DataField: *Inquriry.ReceiverID*
  Tag: *Contact.AddressCityStateZip*
- Print the contact's state in long form
  DataField: *Contact.State*
  Tag: *States.ValueField*
- Print the grantor's state in abbreviated form
  DataField: *Grantor.State*
  Tag: *States.ValueShort*

Using Field Expressions

In GrantWave, expressions can be used in the *DataField* property to specify textbox output in a report, such as date/time, mathematical calculations or conditional values. **Any field expression should begin with the equals (=) sign.**

To use a mathematical expression

Change the *DataField* property for the text box to the mathematical calculation desired:
Example: =Quantity*Price

To use a substring

Change the *DataField* property for the text box to the substring needed. If setting up grouping, change the GroupHeader's *DataField* property to the same substring:
Example: =ProductName.Substring(0, 1)

To use date/time
Change the *DataField* property for the text box to the following:
Example: =System.DateTime.Now.ToString()

To create a conditional value
Change the *DataField* property for the text box to the conditional statement desired:
Example: =(UnitsInStock > 0)?"In Stock":"Backorder"

Special Address and Name Handling

The following tables offer special formatting options for the name and address output of associated entities:

- Coverletter
- Inquiries

The field table view offers default templates for the reference lookup to Contact and Grantor tables, e.g. ReceiverName (First Last), Sender Address (City State Zip).

Output Formatting

GrantWave allows you to set formatting strings for date, time, currency, and other numeric values using the *OutputFormat* property on the textbox control. The *OutputFormat* dialog also allows you to select international currency values and select from various built-in string expressions.

Times

- hh:mm tt = 09:00 AM
- HH:mm = 21:00 (twenty-four hour clock)
- HH = hours in 24 hour clock
- hh = hours in 12 hour clock
- mm = minutes
- ss = seconds
- tt = AM or PM

Dates

- dddd, MMMM d, yyyy = Saturday, December 25, 1999
- dd/MM/yyyy = 25/12/1999
- d or dd = day in number format
- ddd = day in short string format (Ex. Sat for Saturday)
- dddd = day in string format (Ex. Saturday)

OutputFormat Strings

- MM = month in number format
- MMM = month in short string format (Ex. Dec for December)
- MMMM = month in string format (Ex. December)
- y or yy = year in two digit format (Ex. 99 for 1999)
- yyy or yyy = year in four digit format (Ex. 1999)

Currency and Numbers

- $00.00 = $25.50
- $#,##0.00 = $06.25
- 0 = digit or zero
- # = digit or nothing
- % = percent-multiplies the string expression by 100

Report Formatting

ActiveReport Document

- **DataMember**
  Specifies the datatable to use (e.g. Tasks, Contact, Program, Grant, Activities, etc.)
- **DataSource**
  Not used
- **Expression**
  Stops the reporting engine from throwing exceptions and instead displays the provided string.
- **MaxPages**
  Sets the maximum number of pages that the report will create.
- **PrintWidth**
  Sets the report's printable width in inches. Metric values can be specified with their abbreviation at the end and will automatically converted to inches (e.g. *22.1 cm*)
- **ScriptLanguage**
  Not used
- **ShowParameterUI**
  Not used
- **Watermark**
  Adds a specified image to the report's background. The watermark image can be positioned, sized, aligned and placed on specified pages by using the other watermark properties.
- **WatermarkAlignment**
  Sets the watermark's general vertical and horizontal position when it is added to the canvas.

- **WatermarkPrintOnPages**
  Sets a value indicating the specific pages to which the watermark should be added.
- **WatermarksSizeMode**
  Sets how the watermark will be sized when the image is rendered on the page.

PageHeader, PageFooter

- **BackColor**
  Sets the background color of the section.
- **CanGrow**
  Indicates whether the section height should grow when its controls extend beyond its original height.
- **CanShrink**
  Indicates whether the section height should be adjusted to the exact total height of its controls.
- **Height**
  Sets the height of the section.
- **Modifiers**
  Not used
- **Visible**
  Specifies whether the section should be printed or not

GroupHeader

- **BackColor**
  Sets the background color of the section.
- **CanGrow**
  Indicates whether the section height should grow when its controls extend beyond its original height.
- **CanShrink**
  Indicates whether the section height should be adjusted to the exact total height of its controls.
- **ColumnGroupKeepTogether**
  Sets a value that specifies whether the group will print as a single block in the same column.
- **ColumnLayout**
  Sets a value to determine whether the section should use the same column layout as its detail section.
- **DataField**
  Sets the name of the field used to group the data source records.
- **GroupKeepTogether**
  Sets a value that specifies whether the group will print as a single block in the same column.
- **Height**
  Sets the height of the section.

- **KeepTogether**
  Sets a value that determines whether the section should be printed on a single page.
- **Modifiers**
  Not used
- **NewColumn**
  Sets a value that determines whether a new column (in a multi-column report) should be started before and/or after printing the section.
- **NewPage**
  Sets a value that determines whether a new page should be inserted before and/or after printing the section.
- **RepeatStyle**
  Sets a value that specifies whether the section should print with every column or page on which the Detail section or associated footer is printed.
- **UnderlayNext**
  Sets a value that specifies whether the section should print underneath the following section.
- **Visible**
  Specifies whether the section should be printed or not

GroupFooter

- **BackColor**
  Sets the background color of the section.
- **CanGrow**
  Indicates whether the section height should grow when its controls extend beyond its original height.
- **CanShrink**
  Indicates whether the section height should be adjusted to the exact total height of its controls.
- **ColumnLayout**
  Sets a value to determine whether the section should use the same column layout as its detail section.
- **Height**
  Sets the height of the section.
- **KeepTogether**
  Sets a value that determines whether the section should be printed on a single page.
- **Modifiers**
  Not used
- **NewColumn**
  Sets a value that determines whether a new column (in a multi-column report) should be started before and/or after printing the section.
- **NewPage**
  Sets a value that determines whether a new page should be inserted before and/or after printing the section.

- **PrintAtBottom**
  Sets a value that specifies whether the section should be printed at the bottom of the page immediately before any page footer section.
- **Visible**
  Specifies whether the section should be printed or not.

Detail

- **BackColor**
  Sets the background color of the section.
- **CanGrow**
  Indicates whether the section height should grow when its controls extend beyond its original height.
- **ColumnCount**
  Sets a value that specifies the number of newspaper columns in the report.
- **ColumnDirection**
  Determines how a report should print the detail section in a multi-column report.
- **ColumnSpacing**
  Sets or returns the space between columns in a multi-column report.
- **Height**
  Sets the height of the section.
- KeepTogether
  Sets a value that determines whether the section should be printed on a single page.
- **Modifiers**
  Not used
- **NewColumn**
  Sets a value that determines whether a new column (in a multi-column report) should be started before and/or after printing the section.
- **NewPage**
  Sets a value that determines whether a new page should be inserted before and/or after printing the section.
- **Visible**
  Specifies whether the section should be printed or not

Label

- **Alignment**
  Sets the alignment of text within the bounds of the control.
- **Angle**
  Sets the angle (slope) of the text within the control area.
- **BackColor**
  Sets the background color of the control area.
- **Classname**
  sets a style rule class name. The style rule is used to format the control.
- **DataField**
  Sets the field name from the data source to bind to the control.

- **Font**
  Sets the font used to print the control text.
- **ForeColor**
  Sets the foreground (font) color of the control.
- **HyperLink**
  Sets a URL address that can be used in the viewer's HyperLink event to navigate to the specified location. The URL is automatically converted into an anchor tag or a hyperlink in HTML and PDF exports.
- **Location**
  Sets the location of the control.
- **Modifiers**
  Not used
- **MultiLine**
  Sets a value indicating whether this is a multi-line label control.
- **Size**
  Sets the size of the control in inches.
- **Tag**
  Specifies a look up table and look up field
- **VerticalAlignment**
  Sets the position of the label's text vertically within the bounds of the control.
- **Visible**
  Sets a value indicating whether the control will be printed.
- **WordWrap**
  Indicates whether a multi-line label control automatically wraps words to the beginning of the next line when necessary.

Textbox

- **Alignment**
  Sets the alignment of text within the bounds of the control.
- **BackColor**
  Sets the background color of the control area.
- **CanGrow**
  Determines whether the report should increase the height of the control based on its content.
- **CanShrink**
  Determines whether the report should decrease the height of the field based on its value.
- **Classname**
  Sets a style rule class name. The style rule is used to format the control.
- **CountNullValues**
  Determines whether database null values should be included as zeroes in summary fields.
- **DataField**
  Sets the field name from the data source to bind to the control.

- **DistinctField**
  Sets the name of the data field used in a distinct summary function.
  Remarks: The summary function will process DataField values based on the distinct value of this field. This property is used only when the SummaryFunc value is one of Distinct Summary Functions. When using the summary functions with a field, the CanGrow and CanShrink properties are disabled for the field.

- **Font**
  Sets the font used to print the control text
- **ForeColor**
  Sets the foreground (font) color of the control.
- **HyperLink**
  Sets a URL address that can be used in the viewer's HyperLink event to navigate to the specified location. The URL is automatically converted into an anchor tag or a hyperlink in HTML and PDF exports.
- **Location**
  Sets the location of the control.
- **Modifiers**
  Not used
- **MultiLine**
  Sets a value indicating whether this is a multi-line label control.
- **OutputFormat**
  Sets the mask string used to format the Value property before placing it in the Text property.
- **Size**
  Sets the size of the control in inches.
- **Style**
  Sets a style string for the textbox. The style string overrides the global style rules specified in ClassName property. Style string syntax is based on Cascading Style Sheets syntax

- **SummaryFunc**
  Sets the summary function type used to process the DataField values.
  You can use this function to create subtotals, grand totals and other summary values. SummaryFunc has no effect unless the SummaryType property is set to either SubTotal or GrandTotal. When a summary function is used on a control, the CanGrow and CanShrink properties will have no effect since the summary is calculated after the control height has been determined and finalized.

- **SummaryGroup**
  Sets the name of the group header section that is used to reset the summary value when calculating subtotals. *For example*, setting a sum of Price for an Order group header will reset the sum to zero for each order group. The property is only used when SummaryType is set to SummaryType.SubTotal.

- **SummaryRunning**
  Sets a value that determines whether the data field summary value will be accumulated or reset for each level (detail, group or page).

SummaryRunning enumeration determines the summarization behavior. Default is SummaryRunning.None. Setting this property to Group or All will make a report print a running summary of the field at the group or report level.

- **SummaryType**
  Determines the type of summary to be performed.
  A report can summarize the field as:
    - Subtotal (group level; reset for each group)
    - Grand total (report level; do not reset until all records are processed)
    - Page total (page level; reset for each page)
    - Page count, which is the total number of pages printed.

    If the summarized field is placed ahead of its summary level, (for example, placing a page total in the page header or a report grand total in the report header), the containing section and the following sections will not be printed until the summary value is resolved (calculated). When using the summary functions with a field, the CanGrow and CanShrink properties are disabled for the field.
- **Tag**
  Specifies a look up table and look up field.
- **Text**
  Sets the formatted text value to be rendered in the control.
- **VerticalAlignment**
  Sets the position of the label's text vertically within the bounds of the control.
- **Visible**
  Sets a value indicating whether the control will be printed.
- **WordWrap**
  Indicates whether a multi-line label control automatically wraps words to the beginning of the next line when necessary.

RichTextBox

- **BackColor**
  Sets the background color of the control area.
- **CanGrow**
  Determines whether the report should increase the height of the control based on its content.
- **DataField**
  Sets the field name from the data source to bind to the control.
- **Location**
  Sets the location of the control.
- **MaxLength**
  Sets the maximum number of characters in the control for the End-User Report Designer.
- **Modifiers**
  Not used
- **MultiLine**
  Sets a value indicating whether this is a multi-line label control.

- **Size**
  Sets the size of the control in inches.
- **Tag**
  Specifies a look up table and look up field.
- **Visible**
  Sets a value indicating whether the control will be printed.

Line

- **AnchorBottom**
  Anchors the line to the bottom of the containing section.
- **LineColor**
  Sets the color of the line control.
- **LineStyle**
  Sets the pen style used to draw the line.
- **LineWeight**
  Sets the pen width of the line in pixels.
- **Location**
  Sets the location of the control.
- **Modifiers**
  Not used
- **Size**
  Sets the size of the control in inches.
- **Tag**
  Specifies a look up table and look up field
- **Visible**
  Sets a value indicating whether the control will be printed.

Shape

- **BackColor**
  Sets the background color of the control area.
- **LineColor**
  Sets the color of the line control.
- **LineStyle**
  sets the pen style used to draw the line.
- **LineWeight**
  Sets the pen width of the line in pixels.
- **Location**
  Sets the location of the control.
- **Modifiers**
  Not used
- **Size**
  Sets the size of the control in inches.
- **Style**
  Sets the shape style to be printed. Valid values are Rectangle, Ellipse, and RoundRect.

- **Tag**
  Specifies a look up table and look up field
- **Visible**
  Sets a value indicating whether the control will be printed.

Picture

- **BackColor**
  Sets the background color of the control area.
- **DataField**
  Sets the field name from the data source to bind to the control.
- **HyperLink**
  Sets a URL address that can be used in the viewer's HyperLink event to navigate to the specified location. The URL is automatically converted into an anchor tag or a hyperlink in HTML and PDF exports.
- **Image**
  Sets the Image to be printed in the Picture control.
- **LineColor**
  Sets the border line color around the picture control.
- **LineStyle**
  Sets the pen style used to paint the border around the picture control.
- **LineWeight**
  Sets the pen width of the line in pixels.
- **Location**
  Sets the location of the control.
- **Modifiers**
  Not used
- **PictureAlignment**
  Sets the position of the image within the control area.
- **Size**
  Sets the size of the control in inches.
- **SizeMode**
  Sets a value that determines how the image is sized to fit the Picture control area.
- **Tag**
  Specifies a look up table and look up field
- **Visible**
  Sets a value indicating whether the control will be printed.

Subreport

- **CanGrow**
  Determines if the report should increase the height of the control based on its content.
- **CanShrink**
  Determines whether the report should decrease the height of the field based on its value.

- **DataField**
  Not used
- **Location**
  Sets the location of the control.
- **Modifiers**
  Not used
- **ReportName**
  The name of the single report to insert. This name must exactly match an existing report in report tree list.
- **Size**
  Sets the size of the control in inches.
- **Tag**
  Specifies a look up table and look up field.
- **Visible**
  Sets a value indicating whether the control will be printed.

PageBreak

- **Enabled**
  Determines whether the PageBreak is currently enabled.
- **Location**
  Sets the location of the control.
- **Modifiers**
  Not used
- **Tag**
  Specifies a look up table and look up field.
- **Visible**
  Sets a value indicating whether the control will be printed.

How To

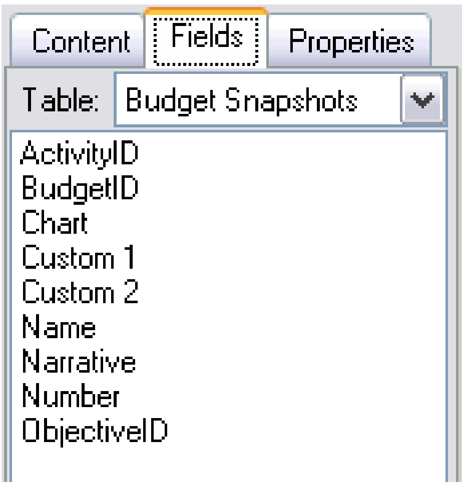
Create a new report

In the report module switch into the Designer View by clicking the designer tab. Click on the "Create New Report" icon to open the report creation dialog.
Enter a name for your report and select the type of report you want to create. See Report Types in Architectural Overview for more details on report types. The name of the report has to be unique; you will be warned if a name already exists. Click OK to create the new report. The new report is shown in the report designer.

Note:

If you created a Master Report, the template already contains field for fetching organization, program and grant data. Delete the fields you don't want to include in the report or set the Visible property of the group to 'False' in the Property Editor.

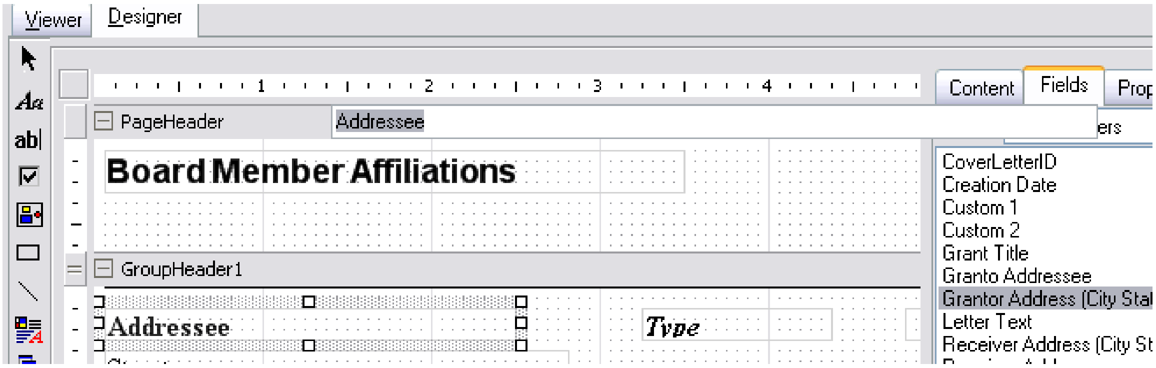
Adding a data field:
Select the Fields tab in the Controls Panel.



In the table combo, select the data table you want to display data from. The *Data Fields List* is automatically populated with all the available data fields of the currently selected table. Drag and drop you the data fields onto the report viewer. On the report viewer, rearrange and resize the controls to your needs. Switch to the *Property View* to modify additional properties.

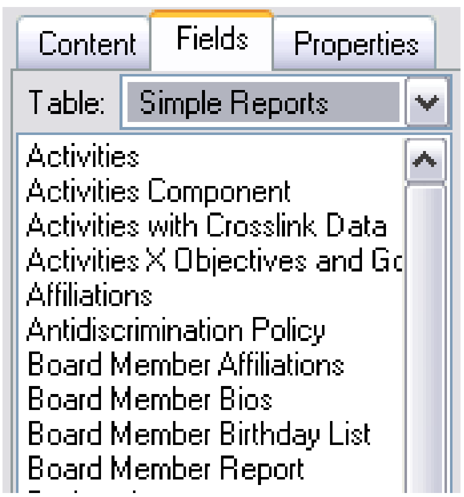
Adding a group:
Groups can be used to label repeating output in the detail section. Another use is to place summary fields for value fields in nested groups or the detail section.
Open the layout context menu by right clicking on an empty spot in the layout of the designer view. From the Insert submenu select *Insert Group Header Footer* to insert a new group header and group footer.

Adding a label:
From the *controls toolbar* click on the label icon. The cursor will change its shape to a cross when moving over to the report layout. Create a new label in the report designer by dragging the mouse while pressing down the left button. The new label control will appear as soon as the mouse button is released. To change the text of the label double click it and enter the new text in the appearing textbox on top of the report viewer.

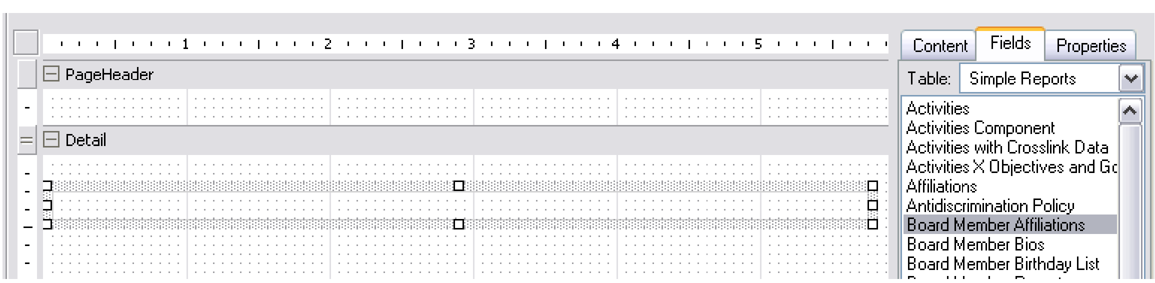


This will automatically change the *Text* as well as the *Name* of the control. Alternatively you can change the text of the label in the *Text* field of the *Property Editor*.

Adding a sub report:
Select the *Fields* tab in the *Controls Panel.*

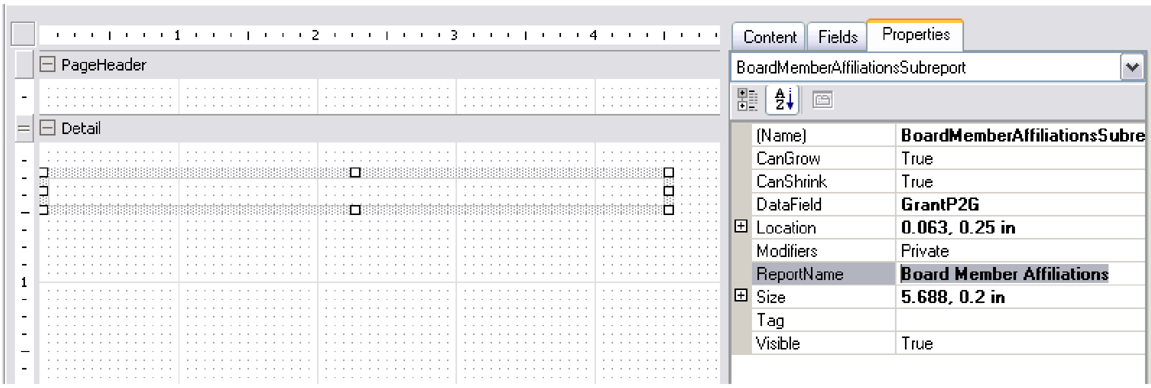


In the table combo select *Simple Reports.* The list view is automatically populated with all available sub reports. Select the sub report you would like to insert by dragging and dropping it into the layout view. The sub report will be displayed as a simple, square control.



Rearrange and resize the control to the position and size it should have on the final report.

To manually change the sub report to a different simple report, select the sub report and switch into the *Properties View* by clicking on the *Properties* tab. Change the name of the *ReportName* property to the name of the desired simple report.



Adding a summary field:

Summary fields are fields that perform certain calculations on value database fields (database fields that contain a number, e.g. in most cases a currency). This calculation can be the calculating a total or sub total, an average, min and max values, standard derivations, etc.

Note: In the following the calculation of a total is described, but other calculations are possible just by setting the *SummaryFunc* property in the *Property Editor*.
In general you want to calculate a numeric database field.

In the Designer View select the 'Fields' tab and select the desired database table. In the database field list select the numeric field you want to add up. Drag the field into the details section of your report. This control will contain the values of each item.

For a second time drag the same field into the enclosing group section of the previous control. This control will contain the total.

If no enclosing group exists, create on from the Layout View's context menu (Insert -> Insert Group Header Footer).

Switch into the Properties View. Select the second control in the enclosing section by clicking it. In the Property Editor set the field *SummaryType* to *GrandTotal*. Switch into the Viewer to see the calculated total report.

Viewing a newly created report:

You can view your report at any time by switching into the *Report Viewer* view. The report will be generated. Error in the controls will be displayed with the string 'Error' as text for the corresponding control. Check the *DataField* property in this case.