CHAPTER 30:

# AD HOC REPORTING

#### Topics:

- Ad Hoc Reporting Overview
- Examining Ad Hoc Report Portlet Details
- Working with Ad Hoc Reports and Dashboards

# **Ad Hoc Reporting Overview**

The ad hoc report writer gives users the ability to create reports and dashboards quickly and easily.

When you design a new report, the report designer leads you through a logical series of steps, beginning with the choice of a data source. After you have a data source, you can then choose the fields you want to use in your report. You can configure field attributes such as sorting and grouping, create charts and gauge panels, choose the colors and shading for your report, and define the header and the footer content. You can also define who you want to share the report with, and what permissions that you want to allow other users when interacting with your report.

If your agency has obtained a license key to access the form layout tool in ad hoc reports, you can use the form layout tool in ad hoc reports to create forms, edit forms, and add data fields.

The design process always presents users with a simple set of actions on each tab that enables even a novice report writer to create an effective report. However, the process also provides several opportunities for more advanced configuration and setup for more experienced users.

You can save reports and dashboards and categorize them into folders for easy reference. Saved ad hoc reports can be re-run as needed. You can update dashboards at the click of a button. Administrators can upload ad hoc reports to the Reports menu that is available on many portlets.

# **Examining Ad Hoc Report Portlet Details**

Whether you are creating a new report or a new dashboard, or accessing an existing report or dashboard, you use the ad hoc report writer. The topics in this section describe what you see both on the Report List page and on the Report/Dashboard Designer.

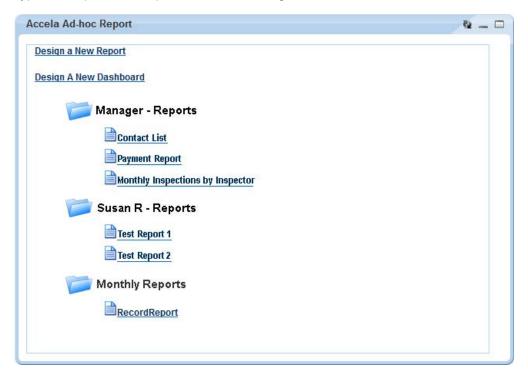
#### Topics:

- What You See on the Ad Hoc Report Writer List
- What You See on the Report Designer

What You See on the Dashboard Designer

## What You See on the Ad Hoc Report Writer List

When you first open the ad hoc report writer, you see a display called the Report List. The display contains both a report list (organized by category), and hyperlink commands to design a new report and a new dashboard, as shown in the figure below. Clicking either of the Design hyperlinks opens the Report/Dashboard Designer.



The categories, or folders, are user-defined, and you can decide which reports or dashboards to assign to a category. Click any category to expand or collapse the contents.

Each report in the list has a set of tools you can use to interact with that report. Which tools you can use on a given report depends on your User ID permissions to that report.

To see the toolbar for a report, hover your mouse cursor on the report name in the Report List. The report tools display to the left of the report name as shown in the figure below.



**Table 10: Report Toolbar Icons** 

Button	Control Name	Description
×	Delete	Click this button to delete the report.
0	Edit	Click this button to edit the report. The Report Designer opens.
	Report Name	The report name is a hyperlink. When you click the name, the report runs and then displays.

# What You See on the Report Designer

The Report Designer provides users with a series of tabs that divide the report building tasks into logical groupings.

Descriptions of the Reports Designer toolbar, the common record controls, the data source sections, and the Report Designer tabs are available in the following sections.

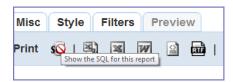
#### Topics:

- Report Designer Toolbar
- Record Control Buttons
- Data Source Section and DB View Relationships Section
- Fields Tab
- Summary Tab
- Chart Tab
- Gauge Tab
- Misc Tab
- Style Tab

## **Report Designer Toolbar**

A common element to all the tabs on the Report Designer, the toolbar contains a series of buttons you can use while working in Report Designer.

Hover your mouse cursor over any button to see a brief definition of the button's function. If the button is not active for any reason, Accela Automation displays a 'no access symbol,' as illustrated in the example below.



The following table lists and defines the buttons available in the Report Designer toolbar:

**Table 11: Record Control Buttons** 

Button	Control Name	Description
Report List	Report List	Click to return to the Report List page. If you did not save your report, you may lose your work.
New	New	Click to create a new report (without having to return to the Report List page). If you have been working on another report, remember to save your changes before clicking <b>New</b> .
Save	Save	Click to save a new report or to save changes to an existing report.
Save As	Save As	Click to save a report with a new name, to save an existing report to another category, or to create a new category (see Creating a New Category).
Print	Print	Click to print your report to PDF. For a hard copy, you can print the PDF to your printer.
SQL	SQL	Click to view the SQL logic that defines your report.
<b>3</b>	CSV	Click to export your report to CSV (comma delimiter) format.
×	Excel	Click to export your report to Excel (XLS) format.
W	Word	Click to export your report to Word format
	XML	Click to export your report to XML format.
	RTF	Click to export your report to Rich Text Format (RTF).
	Results field	Enter a value to define the number of records to display when you preview a report.

### **Record Control Buttons**

Many of the tabs share record controls that give you the ability to add additional records, as well as delete and reorganize them. The following table lists and describes those controls.

**Table 12: Record Control Buttons** 

Button	Control Name	Description
×	Delete	Click this button to delete the row the button is on.
4	Insert Row (above)	Click this button to insert a row above the row that the button is on.
4	Insert Row (below)	Click this button to insert a row below the row that the button is on.

**Table 12: Record Control Buttons** 

Button	Control Name	Description
<b>‡</b>	Move	Use this control to move a row up or down in the list.
\$	Advanced Properties	Use this button to access advanced properties for that row. (Not available on all tabs)

### **Data Source Section and DB View Relationships Section**

Use the Data Source (Views and Tables) section page to define which tables (DB\_Views) you want to use to populate data in your report. You can select one data source or multiple data sources for use in your ad hoc report. You can also select templates that give you access to sets of customs fields/attributes configured for a record, a workflow task, an address, a parcel, an owner, a condition, a licensed professional, or a contact for the agency.

When you select more than one data source, Accela Automation prompts you to create joins between the tables using the DB View Relationships section. A 'join' is when you combine records from multiple tables by using a common value that the tables share. You can choose the type of join you want to use. Options include inner joins, cross joins, and outer joins (left, right, and full). See Using More than One Data Source on page 898 for more information.

Your administrator defines which data sources are available to each user. He can use Report Manager to enable data access to each DB\_View, both by User Group and by Module. See Setting Permissions on Ad Hoc Report Data Sources in the Accela Automation Administrator Guide for more information.

The following table describes the buttons and fields available on the Data Source (Views and Tables) page.

Table 13: Data Sources Buttons, Fields, and Columns

Button/Field	Description	
Report List	Click this button to return to the list of Accela ad hoc reports.	
Add Fields	After you define one or more data sources, the <b>Add Fields</b> button becomes enabled. Use this button to move on to the next step in your report creation process: field selection and field definition.	
Allow Nulls	Select <b>Allow Nulls</b> to create a left outer join between the tables. When you do this, the report creates a record for the value in the left-most table, whether there is a record in the right table or not.	
Distinct	Select <b>Distinct</b> if you want to remove duplicates from the result set.	
	When you select this option, Accela Automation inserts the DISTINCT clause into the sql SELECT statement you are building. After you select fields in the Fields tab, you can click <b>SQL</b> to see how the DISTINCT clause appears in the SELECT statement that you are creating.	
Name column	Indicates the name of a data source. Select each data source that you want to use for reporting.	
	If you specify multiple data sources for reporting, you need to create joins between the data sources. See Using More than One Data Source for more information.	

Table 13: Data Sources Buttons, Fields, and Columns

Button/Field	Description	
Description column	Provides a description of a data source.	
Number of Selected Templates column	Indicates the number of templates that you choose to include in your data source for reporting. You can select the additional information fields contained in the selected template and define them as report criteria.	
F Templates button	If templates are available for a data source, this button appears in the Template column. Click to open a template selection page for the selected data source. Templates are sets of customs fields/attributes configured for a record, a workflow task, an address, a parcel, an owner, a condition, a licensed professional, or a contact for the agency. For more information, see Adding Templates to Your Data Source on page 895.	

#### Fields Tab

Use the Fields tab to define which fields you want to include in your report. The list of fields available to you depends on the data source(s) you select in the DB View Relationships section.

Each field you add on this tab appears as a column on the report. The order of the fields from top to bottom determines the display order (left to right) of the data columns on the report. For example, if you add RECORD\_ID, followed by DATE\_OPENED, and DATE\_CLOSED in the Fields tab, then click **Preview**, you see three columns of data displayed. The columns, from left to right, are Record ID, Date Opened, and Date Closed.

After you select a field, you can define how the data for that field displays in the report by setting field attributes as described in the following tables.

#### Field Tab Tables

- Table 14: Fields, Buttons, and Basic Field Attributes on the Fields Tab
- Table 15: Advanced Field Attributes
- Table 16: Function Attribute Options
- Table 17: Format Options for Numerical field types
- Table 18: Format Options for Date field types

Table 14: Fields, Buttons, and Basic Field Attributes on the Fields Tab

Attribute	Description
A	Mark this field attribute for a given field to use an arithmetic operation to create a calculated column in your report, such as column A = column B + column C. Click multiple times on the box to cycle through the available operators (add, subtract, multiply, divide). See Creating a Calculated Column on page 900 for information about using this attribute.
Add Pivot	Click this button to invoke the Pivot feature, which enables you to create a breakout of additional detail on data in your report, essentially adding extra 'pivot columns' to the right side of your report.
	For example, you create a report that lists the sum of payments by payment type. You can use Pivot to add additional columns that break out the payment sums by month in addition to the original sum of payments by payment type. See Adding a Pivot Column on page 902 for more information.
Add Subtotals	Select this option to create sub-totals when you have applied visual grouping. A subtotal for each group displays. The ad hoc report writer makes a best guess at which field is to be sub-totaled and the function to use.
	If you want to change the subtotal function, use the Subtotal Function drop-down list in the Advanced Attributes to choose the function you want. See Table 15: Advanced Field Attributes on page 868.
Continue to Summary	After you define one or more data sources and then set up the fields you want to display, the <b>Continue to Summary</b> button becomes enabled. Use this button to move on to the next step in your report creation process: defining a report summary.
Description	The ad hoc report writer uses this field attribute as the column header in the report. When you select a field, the ad hoc report writer writes a default description to this box. You can modify the field description/column header as needed.
Field	Select the field you want to add to your report from the drop-down list. The order in which fields appear on this tab (top to bottom) is the order in which the ad hoc report writer displays field data (left to right) in columns when you run the report. This drop-down list auto-populates based on the data source(s) you define.
Format	This field attribute defines how you want the data for a given field to display. The contents of this attribute drop-down list varies, depending on the field type. For text fields, this list is empty. For number fields, you have a variety of options. See Table 17: Format Options for Numerical field types and Table 18: Format Options for Date field types for formatting options.
Function	This field attribute applies a function to a given field. If you apply a function to one field, you must apply a function to all the fields in your report. If you select the <b>Group</b> option, you can create a group of fields. See Table 16: Function Attribute Options for available Function options.
Preview	Click this button to see a preview of the report you are creating.

Table 14: Fields, Buttons, and Basic Field Attributes on the Fields Tab

Attribute	Description	
Records field	Enter a number in this field to restrict the number of records returned when you preview the report. For example, if you enter 25 and then click Preview, your report displays only 25 rows of data.	
Sort	To sort the rows in your table in ascending order based on a given field, check this box for that field. To sort rows in descending order, see Table 15: Advanced Field Attributes.	
VG	Mark the <b>VG</b> (Visually Group) box to change the field values for the current field into subheadings, grouped by field value. See Visually Grouping by Field Value on page 899 for more information about using visual grouping.	

**Table 15: Advanced Field Attributes** 

Attribute	Description	
Hide this field	Enable if you do not want the selected field to appear in the report output. For example, you might want to sort by a field's values, but not have the field itself appear in the report.	
Sort (z-a)	Enable to sort the rows in your table in descending order based on a given field.	
Italic	Enable to display data for the selected field in italicized font.	
Bold	Enable to display data for the selected field in bold font.	
Width	Enter the width (default unit is px) of the column in the table.	
Subreport	The drop-down list for this field contains a list of existing reports. If you are creating a sub-report (also known as an embedded report), select the report you want to embed into the current report. When you run the current report, a user can call the embedded report by clicking a link in the current report.	
Drill-Down Style	If you are adding a Subreport, select the style in which you want the subreport to appear. Choices include Link, Link (New Window), Embedded, and Popup.	
URL	If you are creating a 'drill-down' report, use this field to enter the URL for the report that y9ou want to reference.	
	Use this phrase to reference the report:	
	$\label{lem:ReportViewer.aspx?rn=REPORT&plvalue=} \{0\} \\$ where <code>REPORT</code> is the name of the report that you want to reference.	
	If the report that you want to reference resides within a category, use this phrase to reference the report	
	ReportViewer.aspx?rn=Category\REPORT&plvalue= $\{0\}$ . where Category is the name of the category where the report resides, and REPORT is the name of the report that you want to reference.	
	When you create the report (and report category), be sure to use a name that has no spaces, such as ReferenceReport.	

**Table 15: Advanced Field Attributes** 

Attribute	Description
Subtotal Function	You can define the function used for sub-totaling a field by selecting from the drop-down list of functions in the Advanced dialog for the current field. Subtotals for individual fields display when you mark the Add Subtotals option on the Fields tab.
Gradient Cells Shading	Enable to shade cells with gradient from item color to alternating item color.
Text Highlight	Enter the name of a color to change the color of the output for the current field. For example, if you want a field/column to display in the output in red text, enter Red.
Cell Highlight	Specify the cell value or the range of cell values you want to highlight, then specify the color you want to use to highlight these values, separating the value/range of values and the color with a colon.
	For example, you want to highlight unpaid permit application fees in a report. You can add a Payment Amount field in your report, then enter <b>0:Yellow</b> in the Cell Highlight attribute for the Payment Amount field. When you run the report, the ad hoc report writer highlights all unpaid fees (Payment Amount = 0).
Value Ranges	Specify the cell value or the range of values you want to replace, then specify the replacement value, separating the value/range of values and the replacement value with a colon.
	For example, you want to call out unpaid permit application fees in a report. You can add a Payment Amount field in your report, then enter <b>0:UNPAID</b> in the Value Ranges attribute for the Payment Amount field. When you run the report, all unpaid fees (Payment Amount = 0) show UNPAID instead of a 0 for the Payment Amount.
Expression	Enter an expression to manipulate the field data using operators such as COUNT or SUM. For example, SUM(JOB_VALUE_CONTRACTOR)

**Table 16: Function Attribute Options** 

Function Name	Description
Group	Groups field values together for aggregating
Count	Counts the number of values in a column.
Count Distinct	Counts the number of distinct values in a column.
Sum	Sums the value in a field.
Average	Takes the average value of a field.
Maximum	Takes the maximum value in a field.
Minimum	Takes the minimum value in a field.
Group(Date),(Day), (Month),(Year)	Groups a date field by value.

Table 17: Format Options for Numerical field types

Format Option	Description	Examples
0,000	Displays the number as a whole number.	1
		123
		1,234
		1,234,567
\$0.00	Displays the number as currency	\$123.45
		\$0.12
0.0	Displays the number with one decimal place	123.5
0.00	Displays the number with two decimal places	123.46
0.000	Displays the number with three decimal places	123.456
0%	Displays the number as a percentage	1%
		12%

Table 18: Format Options for Date field types

Format Option	Description	Examples
Short Date	Displays the date using the mm/dd/yyyy format	8/1/1996
Long Date	Displays the day of the week, month, numeric day, and the year	Friday, August 09, 1996
Short Time	Displays time as hh:mm AM/PM	12:34 AM
Long Time	Displays time as hh:mm:ss AM/PM	12:34:56 PM
Full(short)	Displays the <b>Long Date</b> format, followed by the <b>Short Time</b> format	Friday, August 30, 1996 4:34 PM
Full(long)	Displays the <b>Long Date</b> format, followed by the <b>Long Time</b> format	Wednesday, October 23, 1996 2:28:37 AM
D&T (short)	Displays the <b>Short Date</b> format, followed by the <b>Short Time</b> format	3/12/1996 7:45 PM
D&T (long)	Displays the <b>Short Date</b> format, followed by the <b>Long Time</b> format	2/27/1996 12:45:13 AM

# **Form Layout Tool**

If your agency has obtained a license key to access the form layout tool in ad hoc reports, you can use the form layout tool to create forms, edit forms, and add data fields.

The tables in this section list and define the buttons and fields you might encounter when you are working in the ad hoc reports form layout tool.

#### Form Layout Tool Fields and Buttons

■ Table 19: Ad Hoc Reports - Form Layout Tool: Buttons

- Table 20: Ad Hoc Reports Form Layout Tool: Image Properties
- Table 21: Ad Hoc Reports Form Layout Tool: Table Buttons
- Table 22: Ad Hoc Reports Form Layout Tool: Table Properties
- Table 23: Ad Hoc Reports Form Layout Tool: Table Cell Properties

#### Table 19: Ad Hoc Reports - Form Layout Tool: Buttons

Button	Label	Description
	Сору	Use to copy both text and objects to the clipboard. Source object remains intact. You can also press Ctrl+C.
×	Cut	Use to copy both text and objects to the clipboard. Source object is removed. You can also press Ctrl+X.
	Paste	Use to retrieve text and objects saved in the clipboard to the current cursor location . You can also press Ctrl+V.
	Paste Only Text	Use to retrieve text saved in the clipboard to the current cursor location. Accela Automation removes all formatting from the text.
	Paste Formatted Text	Use to retrieve text saved in the clipboard to the current cursor location. Accela Automation retains all text formatting.
<b>2</b>	Clean Format	Use to remove formatting from highlighted text.
1	Toggle Display Document Structure	Use to turn on structure indicators in the display. This is a visual aid only. This toggle does not affect your form layout.
<b>~</b>	Undo	Use to undo the last action.
	Redo	Use to redo the last action.
В	Bold	Use to apply <b>bold</b> formatting to selected text.
I	Italics	Use to apply italicized formatting to selected text.
Ū	Underline	Use to apply <u>underlined</u> formatting to selected text.
S	Strikethrough	Use to apply strikethrough formatting to selected text.
$X_2$	Subscript	Use to apply <sub>subscript</sub> formatting to selected text.
$\mathbf{X}^2$	Superscript	Use to apply <sup>superscript</sup> formatting to selected text.
<b>=</b>	Left Justify	Use to align selected text horizontally on the left margin.
<b>=</b>	Center Justify	Use to align selected text horizontally in the center of the page.

Table 19: Ad Hoc Reports - Form Layout Tool: Buttons (Continued)

Button	Label	Description
≣	Right Justify	Use to align selected text horizontally on the right margin.
	Full Justify	Use to align selected text horizontally from margin to margin.
Ā	Text color	Use to define the color of selected text.
āţ	Highlighting	Use to apply color behind selected text.
Paragraph 🔻	Paragraph Format	Use to apply a predefined paragraph style to selected text. Accela Automation applies a pre-defined font, font size, paragraph alignment, and paragraph spacing when you select a paragraph format.
Font size	Font Size	Use to define the font size that you want to use for selected text.
Tahoma ▼	Font	Use to define the font type that you want to use for selected text.
<b>=</b>	Decrease Indent	Use to decrease the indent of selected paragraph text (left margin of paragraph shifts to the left).
<b>=</b>	Increase Indent	Use to indent selected paragraph text (left margin of paragraph shifts to the right).
=======================================	Numbered List	Use to create a numbered list.
E	Bulleted List	Use to create a bulleted list.
69	Link	Use to create a hyperlink for selected text. See Adding a Hyperlink to a Form on page 921 and Adding a Bookmark and Linking to It on page 922.
S A	Delete Link	Use to remove hyperlink formatting from the selected hyperlink.
Ů	Bookmark	Use to insert a bookmark. You can create hyperlinks that jump to a bookmark. See Adding a Bookmark and Linking to It on page 922.
=	Horizontal Rule	Use to insert a horizontal rule in your form. See Adding a horizontal rule on page 919.
"	Block Quote	Use to define a blockquote element with selected text.
	Block Element (DIV)	Use to define a block level element with selected text.
	Stop Element Floating	Use to remove formatting applied to DIV content and restore DIV text to unformatted, left-justified state.
	CSS Style and Class	Use to open a dialog where you can define the CSS style and class.

Table 19: Ad Hoc Reports - Form Layout Tool: Buttons (Continued)

Button	Label	Description
L	Non Breakable Space	Use to prevent a line wrap at the position of the non-breaking space.
	Page break	Use to force a page break on your form.
	Image	Use to add an image to your form.
	Add Table	Use to add a table to your form.

Table 20: Ad Hoc Reports - Form Layout Tool: Image Properties

Field Name	Description
Image URL	The URL or location of the image. For example, c:\graphics\agency_seal.jpg.
Title	The title of the image.
Alt text	The caption for the image. This appears inside the image frame, next to the image.
Size	Defines the size of the frame enclosing the image. The dimensions of the frame do not affect the size of the image.
Alignment	Defines how the image (and image frame) align with text on the same line where the image resides.
Margins	Defines the margins within the image frame.
Border	Defines the outside border for the graphic. Select a border width, style, and color.

Table 21: Ad Hoc Reports - Form Layout Tool: Table Buttons

Button	Label	Description
	Add Table	Use to add a new table.
	Table Properties	Use to view or to modify the properties of the table where you placed your cursor.
	Delete Table	Use to delete the table where you placed your cursor.
	Add Row Above	Use to add a single row to the table above the row where you placed your cursor.
	Add Row Below	Use to add a single row to the table below the row where you placed your cursor.
	Delete Row	Use to remove the row where you placed your cursor.
Ê	Add Column to Left	Use to add a single column to the left of the column where you placed your cursor in your table.

Table 21: Ad Hoc Reports - Form Layout Tool: Table Buttons

Button	Label	Description
	Add Column to Right	Use to add a single column to the left of the column where you placed your cursor in your table.
	Delete Column	Use to remove the column where you placed your cursor.
	Table Cell Properties	Use to modify the properties of a selected cell, row, column or table. Use Table Cell Properties to identify header rows in a table, for example.
	Merge Cells	Use to merge multiple cells. When you merge cells, existing cell content merges as well.
	Split Cells	Use to split a cell that you previously merged. You cannot split a cell that you never merged.

Table 22: Ad Hoc Reports - Form Layout Tool: Table Properties

Field Name	Description
Rows	Lists the number of horizontal rows in the current table.
Columns	Lists the number of vertical columns in the current table.
Width	Defines the width of the current table in pixels or percentage. Use Table Cell Properties to change the width of a column within a table.
Height	Defines the height of the current table in pixels or percentage. Use Table Cell Properties to change the height of a row within a table.
Spacing	Defines the spacing between the cells.
Padding	Defines the space between the text within a cell and the border surrounding the cell.
Border	Defines the outside border for the current table.
Inner borders	Defines the row, column, and cell borders
Alignment	Defines the horizontal alignment of the current table. For example, choose Center to make the table align in the center of the display.
Margins	Defines the margins (space) between the table and any other elements above, below, and to the sides of the table.
Background	Defines the shading for the selected cell, row, column, or table.

Table 23: Ad Hoc Reports - Form Layout Tool: Table Cell Properties

Field Name	Description
Width	Defines the column width for the selected cell, column, or table.
Height	Defines the row height for the selected cell, row, or table.
Table cell type	Defines the cell type for the selected cell, row, or column. Options include Data or Header.
Border	Defines the outside border for the selected cell, row, column, or table.

Table 23: Ad Hoc Reports - Form Layout Tool: Table Cell Properties

Field Name	Description
Alignment	Defines the horizontal alignment of the contents of the selected cell, row, column, or table.
Paddings	Defines the space between the text within a cell and the border surrounding the cell.
Background	Defines the shading for the selected cell, row, column, or table.
Apply to	Defines the region of the table that the current settings impact.

### **Summary Tab**

Use the **Summary** tab to create a sub-table within your report output that provides a less granular view of the report data; for example, a high level overview in addition to the report details you set up.

For example, you create a payment report that lists the sum of incoming payments by month. You can add a Report Summary that provides readers with a total count of incoming payments, an average payment intake value per month, or other useful information.

The following table lists and defines the fields and attributes on the Summary tab.

Table 24: Summary Tab Fields and Buttons

Function Name	Description
Title	Enter a title for the report summary.i
Records	See Table 14: Fields, Buttons, and Basic Field Attributes on the Fields Tab on page 867 for a definition of this field.
Field	See Table 14: Fields, Buttons, and Basic Field Attributes on the Fields Tab on page 867 for a definition of this field.
Description	See Table 14: Fields, Buttons, and Basic Field Attributes on the Fields Tab on page 867 for a definition of this field.
Sort	See Table 14: Fields, Buttons, and Basic Field Attributes on the Fields Tab on page 867 for a definition of this field.
Function	See Table 14: Fields, Buttons, and Basic Field Attributes on the Fields Tab on page 867 for a definition of this field.
Format	See Table 14: Fields, Buttons, and Basic Field Attributes on the Fields Tab on page 867 for a definition of this field.
Add Subtotals	See Table 14: Fields, Buttons, and Basic Field Attributes on the Fields Tab on page 867 for a definition of this field.
Add Deltas	Any time there is a change in a quantity, the ad hoc report writer calculates that change by taking the later value for that quantity and subtracting from it the earlier value for that quantity. You can capture this change in a report by selecting the Add Deltas option.
Continue to Chart	When you finish defining a report summary, click this button to move to the next tab and the next set of actions: setting up charts.
Preview	See Table 14: Fields, Buttons, and Basic Field Attributes on the Fields Tab on page 867 for a definition of this field.

#### **Chart Tab**

Use the Chart tab to create a chart, or graph, for your report using the data from the data source you selected when you created your ad hoc report.

Each chart type has a unique set of fields and settings you can use to define how your chart appears. Choose a chart type from the following list to see a list of fields and settings for that chart type. See Working with Graphs on page 905 for more information about creating charts.

- Trend Chart Fields and Settings
- Pie Chart Fields and Settings
- Plot Chart Fields and Settings
- Bar Chart Fields and Settings
- Funnel Chart Fields and Settings

#### **Trend Chart Fields and Settings**

When you select a trend chart, the following fields and settings are available for you to configure.

Table 25: Trend chart fields and settings.

Function Name	Description
Separator/Function	If you want to compare multiple sets of data on the same chart, use the Separator drop-down list to define the field you want to use to separate your data.
	For example, you can select the same date field you used for the x-axis, and set the Function to Group(Year). When you run the report, you see separate results for each year (you can use the Filter tab to set parameters) overlaid on the same grid. See Figure 42: Trend Chart Example for an example.
Show Legend	Select this option to display a legend for your chart.
Show Value Labels	Select this option to display the value of each data point.
Smooth	Select this option to change the trend line from angular to smooth.
Label Title (Bottom)	Enter text to label your x-axis.
Label Title (Left)	Enter text to label your y-axis
Scale %	Enter a numerical value in this box to define how large you want the chart to appear in your report as compared to the default size. For example, if you enter 75, the chart displays at 75% of the default size. If you enter 125, the chart displays 25% bigger than the default size.

#### Pie Chart Fields and Settings

When you select a pie chart, the following fields and settings are available for you to configure.

Table 26: Pie chart fields and settings

Function Name	Description
Separator/Function	If you want to break out the data into multiple sets, use the Separator drop-down list to define the field you want to use to separate your data.
	For example, you can select the Date_Payment field and set the Function to Group(Year). When you run the report, a pie chart for each year displays (you can use the Filter tab to set parameters).
Show Legend	Select this option to display a legend for your chart.
Show as 3D	Select this option to display the pie chart in a 3D view.
Explode Largest Slice	Select this option to have the largest slice of the pie chart extracted slightly from the main body to make it more visible.
Show Percentage	Select this option to display the percentage value of the total that each slice of the pie represents.
Show Value Labels	Select this option to display the actual value (from the Value field) that each slice of the pie represents.
Show Slice Labels	Select this option to display the actual value (from the Label field) that each slice of the pie represents.
Combine Bottom %	To combine the smallest slices into a single group labeled Other on the chart, enter a percentage value that represents a combined percentage value.
	For example, to combine the bottom 10% of slices into one, enter 10. The ad hoc report writer adds the smallest percentage values together, not to exceed 10% and displays the aggregate value as a single slice.
Chart Type	From the drop-down list, select either Pie or Doughnut.
Scale %	Enter a numerical value in this box to define how large you want the chart to appear in your report as compared to the default size. For example, if you enter 75, the chart displays at 75% of the default size. If you enter 125, the chart displays 25% bigger than the default size.
Target Report	To use a subreport in your chart, select the report you want to invoke from the drop-down list. You must create and save a subreport before you can use it as a Target Report.
	When you run the report, the subreport displays when you invoke the effect you choose in the <b>Effect</b> field.
Effect	Choose the effect you want to use to display the subreport selected in the <b>Target Report</b> field. Choices are <b>Popup</b> (subreport displays in a popup upon click of a pie slice), <b>Hover</b> (subreport displays in popup on mouseover of a pie slice), and <b>Link</b> (subreport displays in a new window upon click of a pie slice).

### Plot Chart Fields and Settings

When you select a plot chart, the following fields and settings are available for you to configure.

Table 27: Plot chart fields and settings

Function Name	Description
Separator/Function	If you want to compare multiple sets of data on the same chart, use the Separator drop-down list to define the field you want to use to separate your data.
	For example, if you chose a date field for the x-axis, you can select the same field as the Separator and set the Function to Group(Year). When you run the report, you see a separate plot line for each year (you can use the Filter tab to set parameters) overlaid on the same grid.
Show Legend	Mark this check box to display a legend for your chart.
Connect	Mark this check box to connect the plot points on the chart with a line.
Auto-Scale	
Scale %	Enter a numerical value in this box to define how large you want the chart to appear in your report as compared to the default size. For example, if you enter 75, the chart displays at 75% of the default size. If you enter 125, the chart displays 25% bigger than the default size.

### Bar Chart Fields and Settings

When you select a bar chart, the following fields and settings are available for you to configure.

Table 28: Bar chart fields and settings

Function Name	Description
Separator/Function	If you want to compare multiple sets of data on the same chart, use the Separator drop-down list to define the field you want to use to separate your data.
	For example, if you chose a date field for the x-axis, you can select the same field as the Separator and set the Function to Group(Year). When you run the report, you see a set of bars for each x value, where each bar in the set represents data for a given year (you can use the Filter tab to set parameters). See Figure 45: Bar Chart Example for an example.
Line Value	Select a field to use as the y-axis value in creating a plot line to run on top of your bar chart. If you define a line value, the Show Pareto check box becomes disabled.
Show Legend	Select this option to display a legend for your chart.
Show Pareto	Select this option to create a pareto chart that contains both bars and a line graph, with individual values represented in descending order by the bars, and the cumulative total represented by the line. If you create a pareto chart, the Line Value field becomes disabled.
Stacked	Select this option if you use a separator value and you want to display the bars in stacked format rather than side by side,
Horizontal	Select this option to display your bar chart horizontally rather than vertically (default display).
Shade Area Under Line	Select this option to apply a shadow to the line created by selecting a field for Line Value. If you do not populate Line Value, this box becomes disabled.

Table 28: Bar chart fields and settings

<b>Function Name</b>	Description
Label Title (Bottom)	Enter a label title for the bottom value set of your chart. This title corresponds to the Label data set.
Value Title (Left)	Enter a label title for the left side value set of your chart. This title corresponds to the Value data set.
Value Title (Right)	Enter a label title for the left side value set of your chart. This label corresponds to the data set for either the <b>Line Value</b> field or the <b>Pareto</b> plot. If you are using neither of these, this field becomes disabled.
Scale %	Enter a numerical value in this box to define how large you want the chart to appear in your report as compared to the default size. For example, if you enter 75, the chart displays at 75% of the default size. If you enter 125, the chart displays 25% bigger than the default size.
Target Report	To use a subreport in your chart, select the report you want to invoke from the drop-down list. You must create and save a subreport before you can use it as a Target Report.

#### Funnel Chart Fields and Settings

When you select a funnel chart, the following fields and settings are available for you to configure.

Table 29: Funnel chart fields and settings

Function Description	Description
Show Percent	Mark this check box to display the percentage value of the total that each disk represents.
Scale %	Enter a numerical value in this box to define how large you want the chart to appear in your report as compared to the default size. For example, if you enter 75, the chart displays at 75% of the default size. If you enter 125, the chart displays 25% bigger than the default size.
Target Report	To use a subreport in your chart, select the report you want to invoke from the drop-down list. You must create and save a subreport before you can use it as a Target Report.

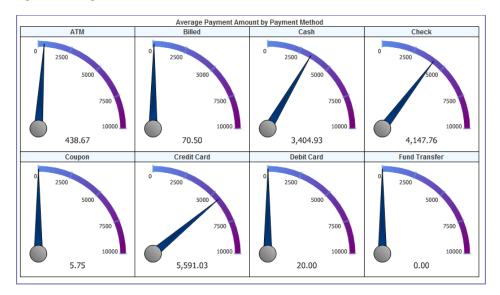
### **Gauge Tab**

In the Gauge tab, you can add one or more radial or linear gauges to a report.

A gauge is a graphical status indicator much like a car speedometer. The gauge displays a needle that moves within a range of numbers displayed on its outside edges. Gauges display the value of a single metric.

You can design up to 12 gauges. Designing multiple gauges provides readers with a way to compare multiple values. Multiple gauges display in a panel similar to the gauge panel in the figure below.

Figure 38: Gauge Panel



You can choose from three types of gauges. Each type is illustrated in the following figures.

Figure 39: Gauge Type Radial 1

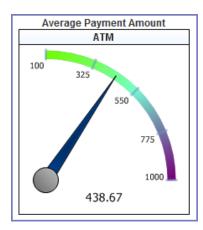


Figure 40: Gauge Type Radial 2

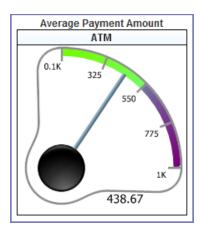
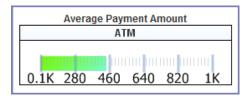


Figure 41: Linear Gauge



The following table lists and defines the fields and attributes on the Gauges tab.

Table 30: Gauge Tab Fields and Attributes

Attribute	Description
Color	Use this field to adjust the color and color gradient in your gauge. Enter a percentage value and the color you want to use at that point using this format: #%:ColorName, where # is the percentage value and ColorName is the color you want to apply. You can enter multiple values, separating each value with a semicolon. For example, we used the following color settings to create the gauge in Figure 39: Gauge Type Radial 1:  0%:LawnGreen;50%:CornflowerBlue;100%:Purple.  To see what colors are available to use, go to the Style tab and view the drop-down list for any element color field.
Continue to Misc	When you finish creating gauges, click this button to move to the next tab and the next set of actions.
Gauge Style	Select the gauge style you want to use in your report. See Figure 39: Gauge Type Radial 1, Figure 40: Gauge Type Radial 2, and Figure 41: Linear Gauge for illustrations of the different types.
Minimum/Maximum	Use these fields to define the range of values to use for the gauge.

Table 30: Gauge Tab Fields and Attributes

Attribute	Description
Name	Choose a field for the gauge labels. Values from the chosen field serve as labels for each gauge you create. If you have more label values than gauges, Accela Automation creates gauges for the first x number of labels values sorted in ascending order, where x is the number of gauges you are creating as defined in the Results field.
	Note: You cannot directly pick which label value to create a gauge for. However, you can use the Filters tab to hide the label values you do not want to create gauges for. See Filters Tab on page 884.
Results	Specify how many gauges you want to show. If you choose to count the number of products in multiple categories, you could specify that you want to only show the first 4 categories by alphabetical order. You can create up to 12 gauges. See Figure 38: Gauge Panel for an example of multiple gauges.
Preview	Use this button to run your report and check your report output.
Sort/Function	When you create a number of gauges that is fewer the number of available gauge labels, the ad hoc report writer creates gauges for the first x (number) gauge labels, where x is the number of gauges you are creating. This field defines how the ad hoc report writer determines the sort order of gauge labels. For example, if you choose the same field for Sort as you chose for Name, you can apply a function COUNT. You can then turn on reverse sort (z to a) to make the highest count appear at the top of the list.
Target Report	To use a subreport in your gauge, select the report you want to invoke from the drop-down list. You must create and save a subreport before you can use it as a Target Report.
Title	Enter a title for the gauge or panel of gauges.
Value/Function	Choose a field from the drop-down list that represents the value you want to measure with your gauges, then apply a Function to that field that displays the data you want to see. For example, to create a gauge that measures the average payment intake, you can choose AMOUNT as the Value, and apply the function AVERAGE to that value. When the ad hoc report writer creates the gauge, it shows the average payment intake.

#### Misc Tab

Use the Misc Tab to add a title, description, header, and footer for your report. You can define what type of justification that you want to apply for each of these elements as well as for the **Report Header Image** (the logo). The choices are (L) left justification, (R) right justification, and (M) middle/center justification. You can also set permissions for your report, defining whom you want to be able to access your report, and what you want to allow them to do.

The following table lists and defines the fields, buttons, and attributes available on the Misc tab.

Table 31: Misc Tab Fields and Buttons

Field/Button	Description
Description	Enter a description for the report. Toggle the Justification button for the Title field to define whether you want your title left justified, right justified, or middle justified.
Drill-down Key	Use this drop-down list to define the drill-down key for use with a sub-report (as defined in the Target Report field on the Charts tab).
Footer	Enter Report Footer content. Toggle the Justification button for the Title field to define whether you want your title left justified, right justified, or middle justified.
Header	Enter Report Header content. Toggle the Justification button for the Title field to define whether you want your title left justified, right justified, or middle justified.
Owner	This field identifies the user name of the individual who created the current report.
Share With/Rights	Use the Share With and Rights drop-down lists to define who you want to share the current report with, and what permissions you want to give them when interacting with the report. Select Shared to allow other users to see your report and modify it. Select Read only to set the report so that it is only modifiable by the report owner. Select View Only to allow other users to simply view the report and not make any modifications.
Title	Enter the title of your report. Toggle the Justification button for the Title field to define whether you want your title left justified, right justified, or middle justified.

### **Style Tab**

Use the Style tab to customize the look of your table by changing the color of borders, headers, and rows. When you apply new colors, you can see the end result immediately reflected in the sample grid available on the tab.

You can set report properties on this page as well. See the table below for a list of properties and definitions.

Table 32: Style Tab Fields and Buttons

Field/Button	Description
Border Color	Select a color from the drop-down list for each table element. Refer to the
Header Color	Sample Grid below the Restore Default button to see how the colors you choose, appear.
Header Foreground Color	7 11
Item Color	
Item Foreground Color	
Alternating Item Color	
Restore Default	Click this button to restore the default color settings for the six color fields.
Landscape Printing	Select this option to print your report in landscape page format.
Show Page Number	Select this option to have page numbers display on PDF output reports.

Table 32: Style Tab Fields and Buttons

Field/Button	Description
Show Date and Time	Select this option to have the date and time of the report run displayed on PDF output reports.
Use Pagination in Webview	Select this option to see pagination in web view. Normally, pagination is not applicable in web view.
Add Bookmarks for Each Visual Group	Select this option to add PDF bookmarks for each visual group. You must have applied the VG attribute to a field and you must print to PDF to see these bookmarks.
Page Break after Visual Groups (PDF)	Select this option to apply page breaks for each visual group, such that each visual group begins on a new page. You must have applied the VG attribute to a field and you must print to PDF to see this result.
Minimize grid width	Select this option to trim the width of the columns in your table to match the widest field value, eliminating unused space.
Visual Group Style	Select the style to apply to visual groups sub-headers that contain more than one field value; for example, Name and City. You must have applied the VG attribute to more than one field to see this result.
Items per Page (in viewer)	Use this field to limit the number of rows displayed per page in your report viewer.
Report Order	Use the Move Up and Move Down buttons to change the order in which the different parts of your report display. The order in which the parts appear in this field is the order in which they display when you run the report.
Field/Value Column Pairs	Use this field to set the field value style, which can be useful for accounting and financial reports.
Show main report in Field/Value Style	Select this option to change the main report table to display in the Field/Value style defined in Field/Value Column Pairs field.
Show summary report in Field/Value Style.	Select this option to change the summary report table to display in the Field/Value style defined in Field/Value Column Pairs field.
Continue to Filters	When you finish setting styles, click this button to move to the next tab and the next set of actions.
Preview	Use this button to run your report and check your report output.

### **Filters Tab**

Use the **Filters** tab to filter the data from the data source(s) so that Accela Automation uses only pertinent results in your tables, charts, and gauges.

The following fields and attributes may appear on the Filters tab:

Table 33: Misc Tab Fields and Buttons

Field/Button	Description
Filter Field	Select the field on which to filter the data returned from your data source(s).
Operator	Select from the list of available operations to perform on the field you selected as the Filter Field.
Values	Enter the value to which the ad hoc report writer applies the operation. For example, "Begins With A" returns only those records with entries in the filter field that start with "A."
Blank	Select this option if you want this filter to return both data that matches the defined Values and data that has a blank/null value in that field.
	This control does not affect the Preview view.
Param	Select this option if you want to display this filter and the current settings in the Report Viewer, allowing the user to change the filter value.
	This control does not affect the Preview view.
Show Filters in Report Description	Select this option to write a read-only summary of the report filters you created to the Description field for the report.
Require X Parameters in Viewer	Select a value from the drop-down list to require the reader of the report to set one or more filter values before the report contents display.
Preview	Use this button to run your report and check your report output.

#### **Preview Tab**

Use the Preview tab to view a preliminary version of the your report, including any table, summary table, chart, or gauge you added. Return to any of the previous tabs to make changes, then click the Preview button or tab to see how those changes affect report output.

## What You See on the Dashboard Designer

Use the Dashboard Designer to add multiple reports for display in a single viewer. When you select the reports to display in your dashboard, the ad hoc report writer prompts you to select which report part to use. You can elect to use the table, the summary, a chart, or gauges - whichever is more useful for your purposes.

Note: You must create reports before you can add them to a
Dashboard display. See Designing a New Report on page 890

The Dashboard Designer contains multiple sets of report selection fields. Each set you define displays a different report in your dashboard. The table below lists and defines the report selection and the permission fields available on the report designer, as well as the buttons available in the toolbar.

Table 34: Dashboard Design Form Buttons and Fields

New	Click to create a new report. The Report Designer opens.
Preview	Click to preview your Dashboard design.
Print	Click to print your Dashboard to your computer's default printer.
Records	From the drop-down list, select the number of records to show, includes All and All (No scroll bar).
Report	From the drop-down list of existing reports, select the report you want to add to your dashboard display.
Report List	Click to return to the Report List view.
Report Part	From the drop-down list, select the report part you want to use in your Dashboard display. This list populates based on the parts (Chart, Gauges, Summary Detail) of the report you selected.
Save	Click to save your Dashboard.
Save as	Click to rename your Dashboard and/or assign your Dashboard to a category, and then save.
Share With/Rights	Use the Share With and Rights drop-down lists to define who you want to share the dashboard with, and what permissions you want to give them when interacting with the dashoard. Select Shared to allow other users to see your dashboard and modify it. Select Read only to set the dashboard so that it is only modifiable by the owner. Select View Only to allow other users to simply view the dashboard and not make any modifications.
Title	Enter the title for the report

# Working with Ad Hoc Reports and Dashboards

#### **Topics:**

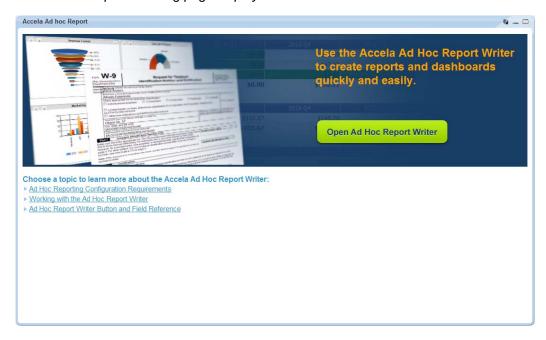
- Launching the Ad Hoc Report Writer
- Working with Existing Reports
- Designing a New Report
- Designing a New Dashboard
- Working with Graphs
- Working with Categories

## **Launching the Ad Hoc Report Writer**

You can access the ad hoc report writer and ad hoc reports documentation from the Ad Hoc Report Writer landing page.

#### To access the ad hoc report writer

Click the Ad Hoc Reports link in the main links section of your Accela Automation console.
 The Ac Hoc Reports landing page displays.



- 2. Do one of the following:
  - To open the Ad Hoc Report Writer:
     Click Open Ad Hoc Report Writer.
  - To view documentation for the Ad Hoc Report Writer:
     Click any link in the "Choose a topic" section at the bottom of the page.

# **Working with Existing Reports**

### Topics:

- Running an Existing Report
- Deleting an Existing Report
- Editing an Existing Report
- Exporting a Report
- Using More than One Data Source
- Adding Templates to Your Data Source
- Visually Grouping by Field Value
- Creating a Calculated Column
- Adding a Pivot Column

### **Running an Existing Report**

You can run an existing report from the Report List or from the Report Designer.

#### To run an existing Report from the Report List

- 1. Open the ad hoc report writer portlet (see Launching the Ad Hoc Report Writer on page 886) and locate the report you want to run.
- 2. Click the desired report name.

The report runs and its contents display.

#### To run an existing report from the Report Designer

- 1. Open the ad hoc report writer portlet (see Launching the Ad Hoc Report Writer on page 886).
- Create a new report, or edit an existing report by clicking the Design icon as shown.



The Report Designer opens.

3. Click the **Preview** button on any of the tabs or click the Preview tab.

The report runs and its contents display.

## **Deleting an Existing Report**

You can remove existing reports from the Report List as needed.

#### To delete a report

- 1. Open the ad hoc report writer portlet (see Launching the Ad Hoc Report Writer on page 886) and locate the report you want to delete.
- Hover your mouse cursor on the desired report to reveal the report tools to the left.
- 3. Click 🔼.

The ad hoc report writer prompts you to confirm the deletion.

4. Click OK.

The ad hoc report writer removes the report.

# **Editing an Existing Report**

You can modify existing reports in Report Designer, provided that you have permission to do so.

#### To edit an existing report

- 1. Open Report Designer for the report you want to modify (see Launching the Ad Hoc Report Writer on page 886).

  - If you are on the Report Viewer (accessed by clicking a report name in the Report List), click the Design button in the toolbar.
- 2. Make changes to your report as needed. For information about modifying information on the different tabs, refer to any of the following sections:
  - Data Source Section and DB View Relationships Section
  - Fields Tab
  - Summary Tab
  - Chart Tab
  - Gauge Tab
  - Misc Tab
  - Style Tab
- 3. Click **Save** to save your changes.

### **Exporting a Report**

You can export ad hoc reports to several different output types, where you can further manipulate the data as needed.

Note:

When you export a report from Accela Ad hoc Reports, you are exporting it with 'as of' data embedded. You cannot re-run the exported version of the report to update the data. If you want updated data for an export report, you must re-run the report in Accela Ad hoc Reports and then export it again.

#### To export a report

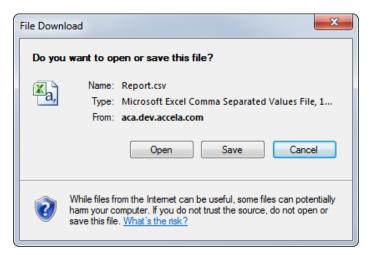
- Open the ad hoc report writer portlet (see Launching the Ad Hoc Report Writer on page 886).
- 2. Create a new report or edit an existing one by clicking the Design icon as shown.



The Report Designer opens.

- 3. Click the export button corresponding to the format you want to export to. The following buttons are available:
  - Click to export to CSV (comma delimiter) format.
  - Click to export to Excel (XLS) format.
  - Click to export to Word format.
  - Click to export to XML format.
  - Click to export to Rich Text Format (RTF).

The ad hoc report writer prompts you to choose whether you want to open or save the report file in its new format.



Click Open to open the file in the new format.

The report opens in a new destination application window. For example, if you export to Word, the report opens in Word.

Click **Save** to save the file in the new format.

The ad hoc report writer prompts you to name the file and choose a location in which to save it.

## **Designing a New Report**

Accela Automation ad hoc reports are easy to create and easy to modify. The design form walks you through the report creation process, making it an easy process for simple reporting needs, while providing more robust features that experienced report writers can use to create more complex reports.

The ad hoc report writer walks you through a series of tabs where you can add a data table, a report summary, a chart, and/or a panel of gauges. You can add all of these elements, or you can add only the elements that you want. For example, if you just want to create a chart for use

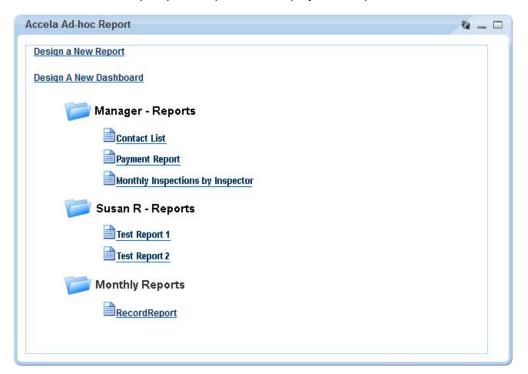
in a dashboard, skip to the Chart tab after you select your data source and define your chart as described in Chart Tab on page 876.

The following procedure describes how to design a new report with all the elements included.

#### To design a simple new report

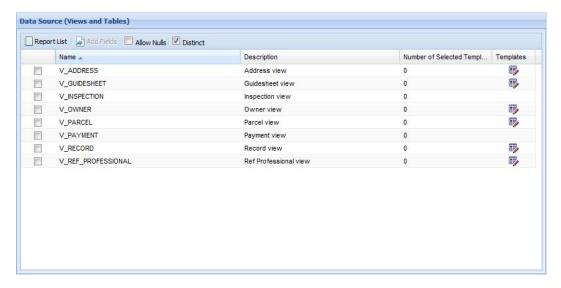
1. Open the ad hoc report writer portlet (see Launching the Ad Hoc Report Writer on page 886).

The Accela Ad hoc Report portlet opens and displays the Report List.



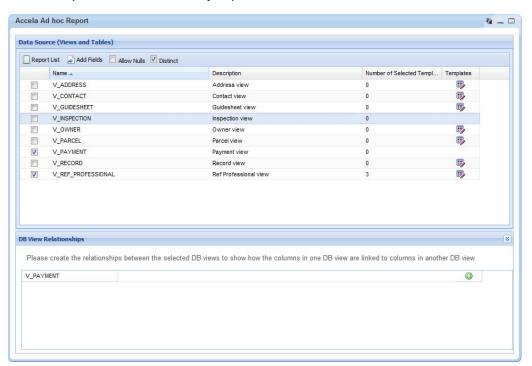
2. Click Design a New Report.

The Ad hoc Report Designer displays the Data Sources page which lists the DB\_Views available to you for reporting.



3. Mark the check box for the DB\_Views you want to use in your report. If you want to use template data in your report, mark the check box for the DB\_View associated with the template you want to use (see Table 35: Data Source Templates for Ad Hoc Reporting on page 897).

The **Add Fields** button becomes enabled. If you selected multiple tables, the DB View Relationships section automatically expands.



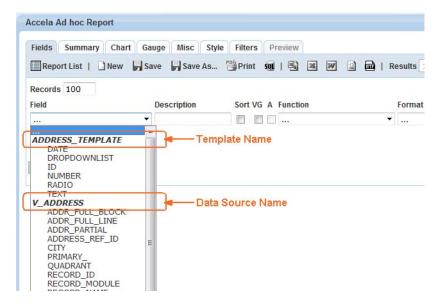
#### 4. Do one of the following:

- If you selected only one DB\_View and do not plan to use template data in your report, proceed to the next step.
- If you selected a DB\_View with the intent of selecting an associated template, click the Template button pfor the related DB\_View and follow the process described in Adding Templates to Your Data Source on page 895.
- If you selected more than one data source for your report, use the DB View Relationships section to create joins between the selected data sources. See Using More than One Data Source on page 898 for more information.
- 5. Mark the **Distinct** check box if you want to remove duplicates from the result set.

Note: Marking the Distinct check box inserts the DISTINCT clause into the sql SELECT statement you are building. After you select fields in the Fields tab, you can click the SQL button to see how the DISTINCT clause appears in the SELECT statement you are creating.

#### 6. Click the Add Fields button.

The Fields tab displays. The Field drop-down list includes the fields from the selected data source(s). If you chose more than one data source, the fields from each selected data source display beneath the data source name wherein the fields reside. If you added ASI/ASIT templates to a data source, the template fields display separately beneath the template name.



Note: The Field drop-down list excludes data source fields that ad hoc report writer does not use in the DB View Relationships, even if the data source is selected in the Data Source (Views and Tables) section.

7. From the **Field** drop-down list, select a field to add to your report.

Tip: Use the Quick Add button to display a checklist of all available fields. Go through the list and select each field you want to add to your report, then click OK. The ad hoc report writer adds the selected fields. You still need to set the attributes for each field (See Fields Tab on page 866).

The Description field auto-populates from the data source.

- Define how you want the field data displayed in your report. See Fields Tab on page 866 for information about field attributes.
- 9. To add another field to your report, click to insert a field above the existing row or to insert a field below the existing row. See the Tip in step 7 for an alternate method for adding fields.
- 10. Repeat steps 7 and 8 for each new row.
- 11. If you want to add pivot columns to your report, click **Add Pivot** (see Adding a Pivot Column on page 902).
- 12. If your agency has obtained a license key to access the form layout tool, and you want to create a form layout for your report, click the **Design Form** button (see Working with the Form Layout Tool on page 913).
- 13. When you finish adding fields, click Continue to Summary.
- 14. If you want to add a Summary section to your report, configure your summary report (see Summary Tab on page 875).
- 15. Click Continue to Chart.
- 16. Select the type of chart you want to create. Configure your chart as described in Chart Tab on page 876. See Working with Graphs on page 905 for further information.

**Note:** Use Preview to view your chart settings as needed. Use the Filters tab to define limits on the data used for your chart as needed. See Filters Tab on page 884 for more information.

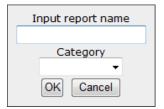
- 17. Click Continue to Gauge.
- 18. Configure your gauges as described in Gauge Tab on page 879.
- 19. Click Continue to Misc.

- 20. Enter text in the **Title**, **Description**, **Header**, and **Footer** fields as needed.
- 21. Use the Justification button (see image below) for each of these elements as well as for the Report Header Image to define what type of justification you want to apply to the element. The choices are (L) left justification, (R) right justification, and (M) middle/center justification.



- 22. Define whom you want to be able to access your report, and what you want to allow them to do. See Misc Tab on page 882 for details.
- 23. Click Continue to Style.
- 24. Use the settings on the Style tab to enhance the visual appearance of your report. See Style Tab on page 883 for details.
- 25. Complete your report, then click Save As in the toolbar.

Accela Automation prompts you to name a report and category (optional).



- 26. Enter a name for your report where indicated.
- 27. If you want to store the report in a category, select an existing category name from the drop-down list or choose Create New to enter a new category name.
- 28. Click OK.

Accela Automation saves your new report.

## **Adding Templates to Your Data Source**

If a data source has pre-defined templates, you can choose one or more of those templates to include in your data source for reporting. Your agency administrator may define one or more templates for a data source. Each template contains a series of additional information fields on records, workflow tasks, addresses, parcels, owners, conditions, licensed professionals, or contacts. For example, your administrator may define a group of application-specific information fields (ASI) for each record type. Accela Automation lists the ASI and ASIT groups associated with all record types in the template selection window. Accela Automation lists them as templates for the "V\_Record" data source.

For more information about which data sources have pre-defined templates and what those templates are, see Table 35: Data Source Templates for Ad Hoc Reporting on page 897.

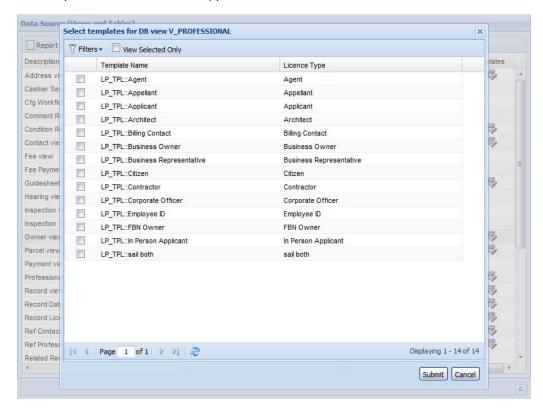
#### To add templates to your data source

1. In the Ad hoc Report portlet, open the Data Sources page either by creating a new report (see Designing a New Report on page 890) or by opening an existing report and clicking the **Data Source** button.

The Data Source (Views and Tables) page displays.

2. Click the Template button for the DB\_View associated with the template that you want to use for reporting.

The template selection window appears.



If needed, click the Filter button and enter filter criteria to refine the list of displayed templates.

**Note:** Available filter fields vary by data source. For example, you can filter templates for the data source "V\_Addresses" by template name and filter templates for "V\_CONDITION\_RECORD" by template name, condition group, and condition type.

The template selection updates to display only those templates meeting your filter criteria.

- 4. Select each template that you want to use.
- Click Submit.

Table 35: Data Source Templates for Ad Hoc Reporting

Template Category	What Makes Up the Template Name	Description
ASI (application-specific information fields)	ASIT::ASIT Group Code::ASIT Subgroup Code	Accela Automation lists the ASI groups associated with each record type as templates for these data sources: V_RECORD_LICENSE, V_RECORD_DATES_STAFF, V_RECORD.
ASIT (application-specific information tables)	ASIT::ASIT Group Code::ASIT Subgroup Code	Accela Automation lists the ASIT groups associated with each record type as templates for these data sources: V_RECORD_LICENSE, V_RECORD_DATES_STAFF, V_RECORD.
TSI (task-specific information fields)	TSI::TSI Group Code	Accela Automation lists all TSI groups as templates for this data source: V_WORKFLOW.
Address Template	Address Template Name	Accela Automation lists all APO templates of the "ADDRESS" attribute type as templates for this data source: V_ADDRESS.
Parcel Template	Parcel Template Name	Accela Automation lists all APO templates of the "PARCEL" attribute type as templates for this data source: V_PARCEL.
Owner Template	Owner Template Name	Accela Automation lists all APO templates of the "OWNER" attribute type as templates for this data source: V_OWNER.
Guidesheet Template	GUIDESHEET_TPL::ASI Group Code	You can associate a guidesheet item with an ASI group. Accela Automation lists the ASI groups associated with each guidesheet item as templates for this data source: V_GUIDESHEET.
Reference Contact Template	PEOPLE_REF::Contact Type	Accela Automation lists the people templates defined for each reference contact type as templates for this data source:  V_REF_CONTACT.
Record Contact Template	PEOPLE_DALIY::Contact Type	Accela Automation lists the people templates defined for each record contact type as templates for this data source: V_CONTACT.
Record Condition Template	RECORD_COND_TPL::ASI Group Code	Accela Automation lists the ASI groups associated with each type of record conditions as templates for this data source:  V_CONDITION_RECORD.
Standard Condition Template	STD_COND_TPL::ASI Group Code	Accela Automation lists the ASI groups associated with each type of standard conditions as templates for this data source: V_STANDARD_CONDITION.
Record Licensed Professional Template	LP_TPL:: <i>License Type</i>	You can associate a licensed professional with a record. Accela Automation lists the people templates defined for each type of record-related licensed professionals as templates for this data source: V_PROFESSIONAL.
Reference Licensed Professional Template	LP_REF_TPL:: <i>License Type</i>	Accela Automation lists the people templates defined for each reference licensed professional type as templates for this data source: V_REF_PROFESSIONAL.

### **Using More than One Data Source**

You can use more than one data source for a report. When you select multiple data sources, you need to define the relationship (join) between the data sources in the DB View Relationships section at the bottom of the Data Source (Views and Tables) page. In most cases, users do this by identifying a common column (field) on both tables that helps tie the two tables together and then they specify the type of join between the tables.

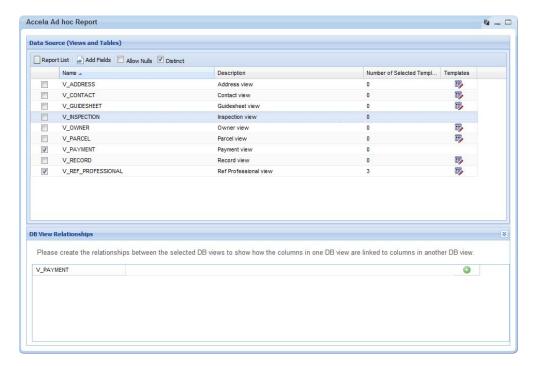
### To specify multiple data sources for your report

1. In the Ad hoc Report portlet, open the Data Sources page either by creating a new report (see Designing a New Report on page 890) or by opening an existing report and clicking the **Data Source** button.

The Data Source (Views and Tables) page displays.

2. Select each data source that you want to use in your report.

The DB View Relationships section automatically expands when you select more than one data source.



- From the first row of the DB View Relationships list, select the first data source from the drop-down list.
- 4. Click the O Insert Row button on the right side of the window.

Accela Automation inserts a new row.

Complete the new row as follows:

First cell Select the second data source.

Second cell Select a column in the second data source that can be mapped to a

column in the first data source.

**Third cell** Read-only. This field contains the operator "="

**Fourth cell** Select the first data source.

Fifth cell Select a column in the first data source to map to the column you

selected for the second cell.

Sixth cell Select the type of join you want to create. The following join types

are available:

 Inner (Direct) Join: An inner join selects rows from two tables such that the value in a column for the first table also appears in a column for the second table.

- Cross Join: A cross join returns a result table where each row from the first table combines with each row from the second table.
- Left (First Exists) Join: A left join (left outer join) returns all
  rows from the left table in the left outer join clause, whether the
  joined columns have a match or not. A field in a result row
  displays a null if the corresponding table does not contain a
  matching row.
- Right Join: A right join (right outer join) returns all rows from the right table in the right outer join clause, whether the joined columns match or not. A field in a result row displays a null if the corresponding table does not contain a matching row.
- Full Join: A full join (full outer join) returns all rows from both
  the right outer and left outer joins. A field in a result row displays
  a null if the corresponding table does not contain a matching
  row.

The Ad Hoc Report tool creates the desired join between the selected data sources.

6. To create another join between the same data sources, or between the one of the previously joined data sources and a third data source, click the Insert Row button to insert a new data source row, then repeat step 5.

Note:

The fourth cell on a new row is a drop-down list containing the data sources that you selected in the first cells of all the previous rows and the new row.

### Visually Grouping by Field Value

You can group data rows by field in your report, using field values as subheadings for each group.

### Example

You can create a payment report that lists the Payment Method (where check, credit card, and cash are the options), the Payment Amount, and the Payment Date.

If you leave VG blank for all fields, your report displays a single table with 3 rows of data as shown.

[		
PAYMENT METHOD	AMOUNT	DATE PAYMENT
Credit	\$2,500.00	1/11/2006
Credit	\$2.00	9/2/2007
Credit	\$10.00	2/22/2008
Credit	\$35.00	5/27/2008
Credit	\$45.00	5/27/2008
Credit	\$40.00	7/20/2008
Check	\$410.00	6/3/2007
Check	\$10.00	6/12/2007
Check	(\$1.00)	9/2/2007
Check	\$3.00	9/2/2007
Check	(\$4.00)	9/10/2007
Check	\$5.00	9/10/2007
Cash	\$100.00	7/8/2004
Cash	\$1,600.00	7/14/2004
Cash	\$450.00	12/9/2004
Cash	\$1,750.00	1/4/2005

If you mark VG for Payment Method, your report displays a series of two-column tables - one table for each Payment Method value. Accela Automation uses the Payment Method values as these sub-table headers.

Credit	
AMOUNT	DATE PAYMENT
\$2,500.00	1/11/2006
\$2.00	9/2/2007
\$10.00	2/22/2008
\$35.00	5/27/2008
\$45.00	5/27/2008
\$40.00	7/20/2008
Check	
AMOUNT	DATE PAYMENT
\$410.00	6/3/2007
\$10.00	6/12/2007
(\$1.00)	9/2/2007
\$3.00	9/2/2007
(\$4.00)	9/10/2007
\$5.00	9/10/2007
Cash	
AMOUNT	DATE PAYMENT
\$100.00	7/8/2004
\$1,600.00	7/14/2004
\$450.00	12/9/2004
\$1,750.00	1/4/2005

### **Creating a Calculated Column**

You can create a calculated column for your report that performs basic arithmetic operations using field values.

#### To create a calculated column

We want to the field A value and the field B value to get a new value C (A+B=C). In our report display, we want to display field A as the first column, field B as the second column, and the new calculated column C as the third column.

**Note:** You do not need to display field A and field B in the report to use them in creating a calculated column.

- 1. Open the Ad hoc Report portlet.
- 2. Create a new report or edit an existing one by clicking the Design icon as shown.



The Report Designer opens.

- Make sure you have a data source selected. See Data Source Section and DB View Relationships Section on page 865.
- 4. Go to the Fields tab.
- 5. Create the first column:
  - Select Field A from the Field drop-down list.
- 6. Click the Add New Row Below button.
- 7. Create the second column:
  - Select Field B from the Field drop-down list in the new row.
- 8. Create the third column, which is the calculated one:
  - Click the Add New Row Below button.
  - Select Field A from the Field drop-down list.
  - Type TOTAL in the Description.
  - Click the Add New Row Below button.
  - Select Field B from the Field drop-down list.
  - Click the A box for the Field B row until a + displays.

Accela Automation disables the Field B Description and Format fields and uses these values from the Field A row, for column C. When you run the report, Accela Automation labels Column C with TOTAL, and displays the sum of the values in column A and column B as shown below.

Column A	Column B	TOTAL
\$0.00	\$0.00	\$0.00
\$1.00	\$1.00	\$2.00
\$2.00	\$2.00	\$4.00
\$3.00	\$3.00	\$6.00
\$8.00	\$9.00	\$17.00
\$11.00	\$11.00	\$22.00
\$31.00	\$13.00	\$44.00
\$44.00	\$44.00	\$88.00
\$114.00	\$152.00	\$266.00
\$234.00	\$44.00	\$278.00
\$102.00	\$214.00	\$316.00
\$123.00	\$213.00	\$336.00
\$111.00	\$236.00	\$347.00
\$116.00	\$252.00	\$368.00
\$133.00	\$238.00	\$371.00

### **Adding a Pivot Column**

The Pivot feature allows users to generate analytical data grids from within a report, essentially adding extra pivot columns to the right side of the report. Pivot columns are useful for comparing data over multiple categorical dimensions. For example, you can create a report that lists inspections by type and the number of each type for the year to date. To that, you can add pivot columns that break out the number of inspections by month, with monthly sub-totals listed.

### To add a pivot column

In this scenario, we are going to create a report that lists the number of inspections performed for the current year and visually group the data by inspection type. Then we are going to add a pivot that further breaks out the number of inspections by month for each inspection type.

- Open the Ad hoc Report portlet.
- 2. Create a new report or edit an existing one by clicking the Design icon as shown.



The Report Designer opens.

- 3. On the Data Sources tab, select the V\_INSPECTION data source.
- 4. On the Fields tab, set the following fields as shown:



The preview shows these results.



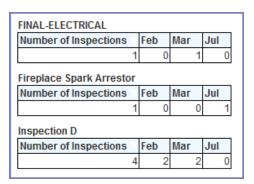
5. Return to the Fields tab and click Add Pivot.

The Add Pivot Columns controls display.

6. Set the fields as shown:



The preview shows these results.



### **Designing a New Dashboard**

A dashboard is a convenience that enables you to set up a display that shows multiple report sections, such as a chart, a summary, or a list of fields, on a single page. For example, the manager of a city's building permits department may create a dashboard view that displays updated graphs that allow him to monitor the number of scheduled vs. completed inspections, the types/quantities of permits being requested, and fee payment data. He can check this dashboard to get an up-to-date snapshot of his department's activities without having to go in and run each report separately.

**Note:** Dashboards make use of existing reports. Create your reports first, then create your dashboard.

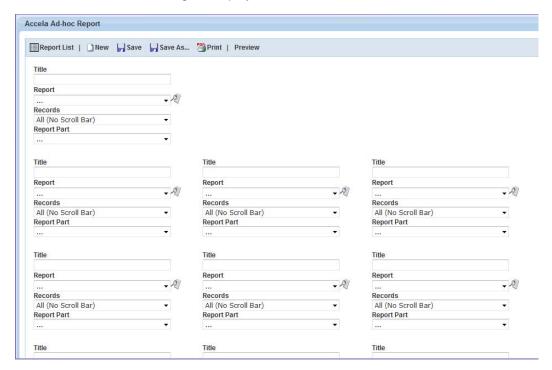
### To design a new dashboard

1. Open the ad hoc report writer portlet (see Launching the Ad Hoc Report Writer on page 886).

The Accela Ad hoc Report portlet opens and displays the Report List.

2. Click Design a New Dashboard.

The Ad hoc Dashboard Designer displays.



3. In the first set of report selection fields, complete the following fields:

Title Enter the title for the report.

Report From the drop-down list of existing reports, select the report you want to add to your dashboard display.

Records From the drop-down list, select the number of records to show.

Report Part Select which part of the selected report you want to display in your dashboard. Choices may include Chart, Gauges, Summary, or Detail, depending on which parts are available in the source report.

Repeat the previous step for each new report you want to add to your dashboard. You can add up to 11 reports.

- 5. Set the permissions for your dashboard by selecting values from the Share With and Rights drop-down lists. The Share With field defines who can access your dashboard. The Rights field defines what other users can do with your dashboard.
- 6. Use Preview to see how your dashboard looks. To return to the Dashboard Designer, click the Design button.
- 7. When you finish, click **Save As**, enter a name for your dashboard, and select a category in which to store the dashboard.
- 8. Click OK.

# **Working with Graphs**

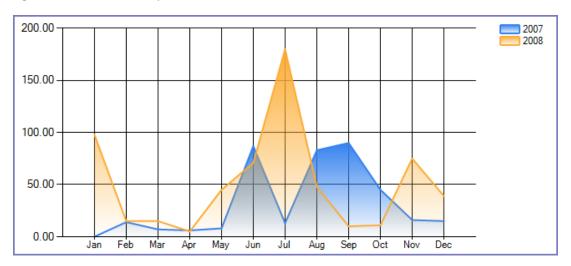
Using tools on the Charts tab, you can create the following types of charts to illustrate data trends, compare values, or show a progression.

- Trend Charts
- Pie Charts
- Plot Charts
- Bar Charts
- Funnel Charts

### **Trend Charts**

Use a trend chart when you want to view the pattern of change in a data element over a period of time.

Figure 42: Trend Chart Example



#### To create a trend chart

- Open the ad hoc report writer portlet (see Launching the Ad Hoc Report Writer on page 886) and either click the Edit icon for an existing report, or click **Design a New Report**.
- 2. If you are designing a new report, select one or more data sources. See Data Source Section and DB View Relationships Section on page 865.
- Go to the Charts tab.
- 4. From the **Chart Type** drop-down list, select **Trend**.
- 5. Enter a title for the chart in the **Title** field.
- 6. Select the date field you want to use for measuring progress on the x-axis.
- 7. Select an option from the **Function** drop-down list to apply to the date field. For example, choose **Group(Month Name)** to display data by month.

Note: The Function options can impact your x-axis unit labels. For example, if you choose Group(Month), the x-axis labels display numerical values representing the months of the year (1 for January, 2 for February, and so forth). If you choose Group(Month Name), the x-axis labels display the abbreviated names of the month (Jan for January, Feb for February, and so forth).

- 8. Mark the **Sort** box to sort the values chronologically. If you do not check this box, the field labels may not appear as you expect them to.
- 9. From the Value drop-down list, select the field you want to use for the y-axis. Your selection is the value you want to track over time. For example, if you want to track the amount of payments received over time, you can choose the Amount field.
- 10. Select an option from the Function drop-down list to apply to the Value you just selected. For example, you can choose Sum to sum the data for the Value field for each period of time defined by the Date function.
- 11. Optional: Click **Advanced Properties** to see additional chart settings.
- 12. Complete additional chart attributes as described in Trend Chart Fields and Settings on page 876.
- 13. Either save your work, or click Continue to Gauge.

### Pie Charts

Use a pie chart when you are comparing parts of a whole. The circle represents the "whole," whereas each 'slice' of the pie corresponds to a percentage of the whole that each part of the whole represents.

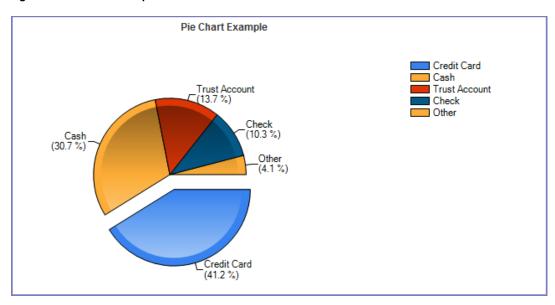


Figure 43: Pie Chart Example

#### To create a pie chart

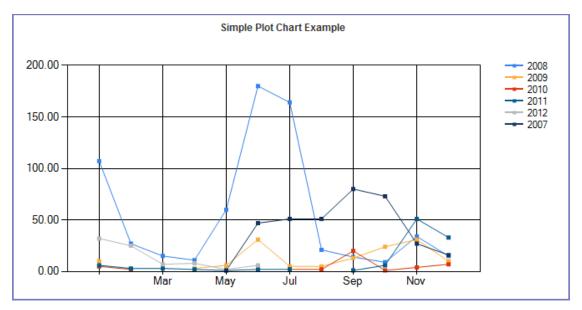
- Open the ad hoc report writer portlet (see Launching the Ad Hoc Report Writer on page 886), and either click the Edit icon for an existing report, or click **Design a New** Report.
- 2. If you are designing a new report, select one or more data sources. See Data Source Section and DB View Relationships Section on page 865.
- 3. Go to the Charts tab.
- 4. From the Chart Type drop-down list, select Pie.
- 5. Enter a title for the chart in the **Title** field.
- 6. Enter a number in the **Records** field to limit how many records you want to use to create the chart.
- 7. Select a field from the **Label** drop-down list. Accela Automation uses the values from this field to define the different portions of the pie chart.
  - For example, you want to create a pie chart that shows the percentage of total payments for each of five payment methods. You can use Payment\_Method as the label.
- 8. Select an option from the **Function** drop-down list to apply to the Label field (for example, Group).
- Select a field from the Value drop-down list.
  - For example, you want to measure the percentage of total payments for each of five payment methods. You can use Amount as the Value.
- 10. Select an option from the **Function** drop-down list to apply to the Value field (for example, Sum).

- 11. Optional: Click **Advanced Properties** to see additional chart settings.
- 12. Complete additional chart attributes as described in Pie Chart Fields and Settings on page 876.
- 13. Either save your work, or click Continue to Gauge.

### **Plot Charts**

Use a plot chart when you are tracking changes over a long or short period of time. It is common to apply a date or time value to the x-axis, and a secondary value, such as number of inspections per day, to the y-axis.

Figure 44: Plot Chart Example



### To create a plot chart

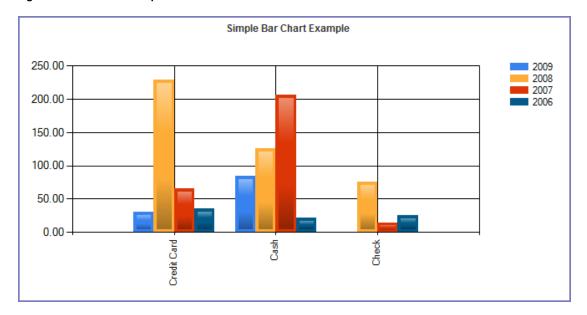
- Open the ad hoc report writer portlet (see Launching the Ad Hoc Report Writer on page 886), and either click the Edit icon for an existing report, or click **Design a New Report**.
- 2. If you are designing a new report, select one or more data sources. See Data Source Section and DB View Relationships Section on page 865.
- 3. Go to the Charts tab.
- 4. From the **Chart Type** drop-down list, select **Plot**.
- 5. Enter a title for the chart in the **Title** field.
- 6. Enter a number in the **Records** field to limit how many records you want to use to create the chart.
- 7. Choose a field to use for the x-axis values. Users often choose a date field.

- 8. From the drop-down list, choose a function to apply to the field you just selected (for example, Group).
- 9. Choose a field to use for the y-axis values.
- 10. From the drop-down list, choose a function to apply to the field you just selected (for example, Sum).
- 11. Optional: Click **Advanced Properties** to see additional chart settings.
- 12. Complete additional chart attributes as described in Plot Chart Fields and Settings on page 877.
- 13. Either save your work, or click Continue to Gauge.

#### **Bar Charts**

Use a bar chart when you want to compare data between different groups or you want to track changes in data over time.

Figure 45: Bar Chart Example



#### To create a bar chart

- Open the ad hoc report writer portlet (see Launching the Ad Hoc Report Writer on page 886), and either click the Edit icon for an existing report, or click **Design a New Report**.
- 2. If you are designing a new report, select one or more data sources. See Data Source Section and DB View Relationships Section on page 865.
- 3. Go to the Charts tab.
- 4. From the Chart Type drop-down list, select Bar.

- 5. Enter a title for the chart in the **Title** field.
- 6. Enter a number in the **Records** field to limit how many records you want to use to create the chart.
- 7. From the Label drop-down list, choose a field to use for the x-axis values. Users often choos a date field.
- 8. Choose a function to apply to the field you just selected (for example, Group(Month)).
- 9. From the Value drop-down list, choose a field to use for the y-axis values.
- 10. Choose a function to apply to the field you just selected (for example, Sum).
- 11. Optional: Click **Advanced Properties** to see additional chart settings.
- 12. Complete additional chart attributes as described in Bar Chart Fields and Settings on page 878.
- 13. Either save your work, or click Continue to Gauge.

#### **Funnel Charts**

Use a funnel chart to illustrate a sales analysis of potential revenue over a series of stages.

Simple Funnel Chart Example

- Jan - 11.6 %
- Feb - 4.1 %
- Mar - 1.8 %
- Apr - 1.7 %
- May - 5.1 %
- Jul - 16.3 %
- Aug - 5.7 %
- Sep - 9.3 %
- Oct - 8.2 %
- Nov - 10.7 %
- Dec - 5.9 %

Figure 46: Funnel Chart Example

### To create a funnel chart

- Open the ad hoc report writer portlet (see Launching the Ad Hoc Report Writer on page 886), and either click the Edit icon for an existing report, or click **Design a New Report**.
- 2. If you are designing a new report, select one or more data sources. See Data Source Section and DB View Relationships Section on page 865.
- 3. Go to the Charts tab.

30: Ad Hoc Reporting

- 4. From the Chart Type drop-down list, select Funnel.
- 5. Enter a title for the chart in the **Title** field.
- Enter a number in the **Records** field to limit how many records you want to use to create the chart.
- 7. From the **Label** drop-down list, choose a field to use for the x-axis values. Users often choose a date field.
- 8. Choose a function to apply to the field you just selected (for example, Group(Month)).
- 9. From the **Value** drop-down list, choose a field to use for the y-axis values.
- 10. Choose a function to apply to the field you just selected (for example, Sum).
- 11. Optional: Click **Advanced Properties** to see additional chart settings.
- 12. Complete additional chart attributes as described in Funnel Chart Fields and Settings on page 879.
- 13. Either save your work, or click Continue to Gauge.

## **Working with Categories**

#### **Topics:**

- Creating a New Category
- Copying a Report to Another Category
- Deleting a Category

### **Creating a New Category**

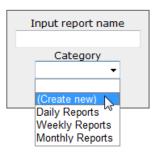
Before you create new categories, be aware that renaming and deleting categories is currently not supported. Once you create a category, it is part of your ad hoc report list display. A good strategy may be to pre-plan your report categories. Another strategy might involve report categories specific to users (for example, 'Tom's Reports' or 'Manager Reports').

### To create a new category

- 1. Open the ad hoc report writer portlet (see Launching the Ad Hoc Report Writer on page 886).
- 2. Either create a new report/dashboard, or open the design form for an existing report/dashboard that you want to assign to the new category.

#### 3. Click Save As.

Accela Automation prompts you to input a report name and select a category to which to assign the report.



4. From the Category drop-down list, choose (Create new).

Accela Automation prompts you to enter a category name.



- 5. Enter a category name. You may use spaces, capitalization, and hyphens. Avoid other special characters.
- 6. Click OK.
- You are returned to the Input Report Name dialog with the new category name displayed in the Category field.
- 8. Click OK.

Accela Automation prompts saves the report name and new category, and the new category is now appears in the Category drop-down list for naming/assigning reports and dashboards.

### **Copying a Report to Another Category**

You can copy a report from one category to another as needed. The process for doing so is very similar to the process for creating a new category, except that you can either create a new category or select an existing category from the Category drop-down list.

See Creating a New Category on page 911.

### To copy a report to another category

1. Open the ad hoc report writer portlet (see Launching the Ad Hoc Report Writer on page 886).

 Open the design form for an existing report/dashboard that you want to copy by clicking the Design button to the left of the desired report. Note that the Delete and Design buttons for a report become visible when you hover your mouse cursor on the report name.



3. Click Save As.

Accela Automation displays the current report name and category.

- From the Category drop-down list, choose either another existing category or (Create new).
- 5. If you chose **Create new**, enter a category name and click **OK**. Otherwise, skip this step. Accela Automation displays the Input Report Name dialog with the new category name showing in the **Category** field.
- 6. Click OK.

Accela Automation copies the report to the new category.

### **Deleting a Category**

Remove unwanted categories by emptying them of contents. If you have a category you do not want, do the following:

- If you want to save any of the reports or dashboards in the category you are removing to another category, copy them to the new categories now. See Copying a Report to Another Category on page 912.
- 2. Delete each report and dashboard within the category you want to remove. See Deleting an Existing Report on page 888.

When you remove the last report/dashboard from the category, Accela Automation removes the category as well.

Tip: You may need to refresh your browser or clear your browser cache to make the empty category disappear from your Report List view.

# **Working with the Form Layout Tool**

If your agency has obtained a license key to access the form layout tool in ad hoc reports, you can use the form layout tool in ad hoc reports to create forms, edit forms, and add data fields. Use the form layout tool to create individualized letters or forms by using a form you design and then populate with data from records. For example, you can create an invoice form that you

populate with data from the database. When you run the report, Accela Automation creates a separate invoice for each record included in the report, similar to a mail merge function.

### **Topics**

- Creating a Form
- Adding a Table to a Form
- Adding Fields to a Form
- Adding Graphical Elements to a Form
- Adding a Hyperlink to a Form
- Adding a Bookmark and Linking to It

# **Creating a Form**

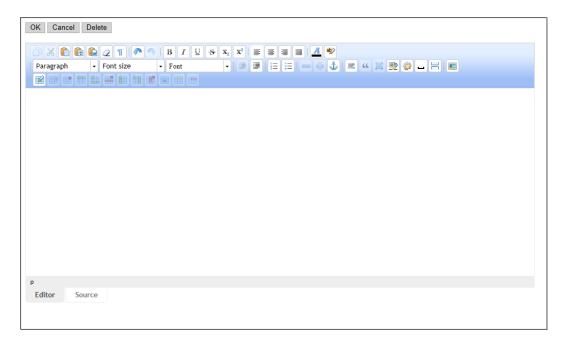
Novice and expert users alike can use the form layout tool to create letters and forms. You can use the form layout tool to create a letter or a form from scratch. You can also copy the html code from an existing letter or form and paste it into the form layout tool, and then add fields.

**BEST PRACTICES TIP:** If your letter or form does not already exist, take a few minutes to plan your letter/form contents before you begin working in the form layout tool. Identify the graphics you need, any hyperlinks you want to create, and what database fields you want to use in the form. Write a list of the database fields you want to use, so you can be confident that you are spelling the field names correctly when you insert them into a form.

### To create a form or letter

- 1. Open the ad hoc report writer portlet (see Launching the Ad Hoc Report Writer on page 886).
- 2. Select the database source for your report, then continue to the Fields tab.
- 3. On the Fields tab, select the fields you want to use in your form.
- 4. Write down the field names exactly as they appear in the drop-down list.
- 5. Click the **Design Form** button.

The form layout tool displays.



Do one of the following:

Tip: Work with the Display Document Structure button enabled to better see how your form layout is proceeding.

### Create a form using the layout tool:

- Enter all text content that you intend to be common to each form that runs. For example, you can enter a title to a form, or the body of a form letter. Do not format the text yet.
- 2) If you want any information or data in your form/letter to appear in columns, create a table and use the columns in the table to organize your data (see Adding a Table to a Form on page 917).

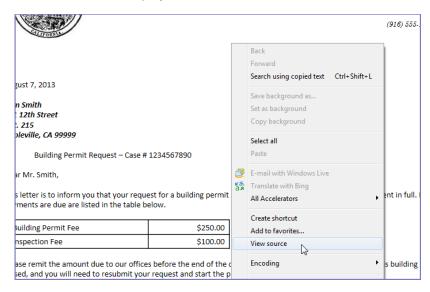
Tip: You can use tables to control your form layout as well. For example, your form might be on letterhead, with a header title and your agency's logo in the same horizontal space on your form. You can create a 2-column table without lines and put the logo in one table cell, and the header content in the other cell.

- 3) Using the list of fields you wrote down in step 4, enter each field you want to include in your form in the location where you want it to appear. Enclose each field name in square brackets. Example: [record\_id].
- 4) Insert horizontal lines, graphics, and page breaks as needed. (see Adding Graphical Elements to a Form on page 919).
- 5) Go through your form and format the text as you want it to appear. For example, apply a new font style and size to your header.

### Create a form by copying the HTML code for an existing form:

- 1) Locate the source document you want to copy (for example, an XML or HTM file).
- 2) Double-click the file to open it in your browser.
- 3) Right-click in the page display.

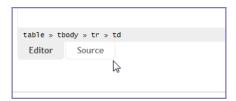
A command menu displays.



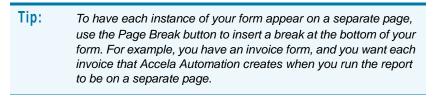
### 4) Select View Source.

The source code for the page displays.

- 5) Click within the window and then press **Ctrl+A** to select all of the contents of the window.
- 6) Press Ctrl+C to copy the contents to the clipboard.
- 7) Navigate to the ad hoc reports form layout tool.
- 8) Select the Source tab at the bottom of the page.



- 9) Press Ctrl+V to paste the contents of your clipboard to the form layout tool.
- 10)Click the Editor tab at the bottom of the page to view the document in WYSIWYG format.
- 11)Using the list of fields you wrote down in step 4, enter each field you want to include in your form in the location where you want it to appear. Enclose each field name in square brackets. Example: [record\_id].
- 12)Insert horizontal lines, graphics, and page breaks as needed. (see Adding Graphical Elements to a Form on page 919).



- 13) Edit the form content as needed to make it appear the way you want it.
- 7. Click **OK** when you complete the layout of your form.

Accela Automation closes the form layout tool and then returns you to the Fields tab.

You can proceed with report setup as described in Designing a New Report on page 890. Do not forget to save the report periodically to preserve ongoing work.

### Adding a Table to a Form

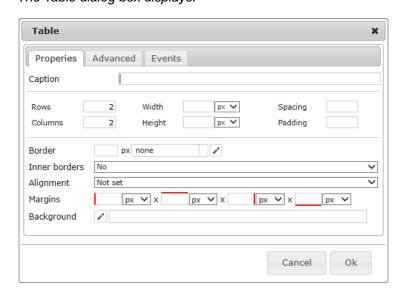
You can use tables in a form to display data in a columnar format. You can also use tables to regulate where on a page that you want form elements to appear. For example, if you want to create letterhead for a letter that includes your agency logo on the left and your agency name and address on the right, you can use a table to align these elements side by side.

You can add a table to a form in the form layout tool with the click of a button. Use the table editing buttons to modify your table as needed (see Table 22: Ad Hoc Reports - Form Layout Tool: Table Properties on page 874).

Tip: Work with the Display Document Structure button enabled to better see how your table appears. This is especially useful if you do not define borders for your table.

#### To add a table to a form

- 1. With the form layout tool open, position your cursor where you want to place the table.
- Click the **Table** button M.
   The Table dialog box displays.



- Define the number of rows and columns. You can add or remove rows or columns later as needed.
- 4. Complete the fields as needed. See Table 22: Ad Hoc Reports Form Layout Tool: Table Properties on page 874 for field definitions.

**Note:** If you want to apply properties such as shading or alignment to a selected cell, column, or row, create the table first. Then you can use the **Table Cell Properties** button to apply additional properties to a cell, a column, or a row as required.

5. Click OK.

Accela Automation returns you to the form layout tool. The new table appears as defined, and Accela Automation enables the table editing buttons.

6. Use the table editing buttons to modify your table as needed (see Table 21: Ad Hoc Reports - Form Layout Tool: Table Buttons on page 873).

### Adding Fields to a Form

You can add field markers to your form that tell Accela Automation which data elements to use in your form. When you run your report, Accela Automation replaces those field markers with data from the fields you indicated, creating custom letters and completed forms. For example, you can create a form letter and insert field markers for the contact's name and address. When you run the report, Accela Automation populates those markers with the name and address of each record it uses in the run. Your output is a series of form letters; each letter has the form letter content, but different names and addresses.

Field markers are easy to create. Simply enter the name of the database field you want to use, enclosed in square brackets. For example, to create a marker for the record\_ID field, enter [record\_ID] in the form layout tool. It is good practice to write down the list of fields you want to use while you are in the Fields tab. Doing so gives you the opportunity to double check the field name spelling and syntax.

You can use tables to regulate where on a page that you want field markers to appear. For example, you can create columns and place field markers in the cells so that the data aligns when you run the report (see Adding a Table to a Form on page 917).

#### To add field markers

- 1. On the Fields tab for your report, select the fields you want to use in your form (see Designing a New Report on page 890).
- 2. As you select fields, write down the names of the fields. You may find that the written list is handy when you are working in the form layout tool.
- Click the **Design Form** button.

The form layout tool displays.

- 4. Position your cursor where you want to place the field.
- 5. Enter the name of the field you want to place, enclosed in square brackets. For example, to create a marker for the record\_ID field, enter [record\_ID] in the form layout tool.
- Apply font styles and formatting as needed.

### Adding Graphical Elements to a Form

You can enhance your form's appearance by inserting graphics, such as an agency logo, or by inserting horizontal rules (lines) as needed.

#### **Topics**

- Adding a horizontal rule
- Inserting a graphic

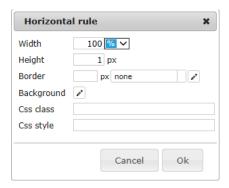
#### Adding a horizontal rule

You can add a horizontal rule (line) to your form when you want to visibly distinguish one section of your form from another.

1. With the form layout tool open, position your cursor where you want to insert the line.

2. Click the **Horizontal Rule** button **=**.

The Horizontal Rule dialog box displays.



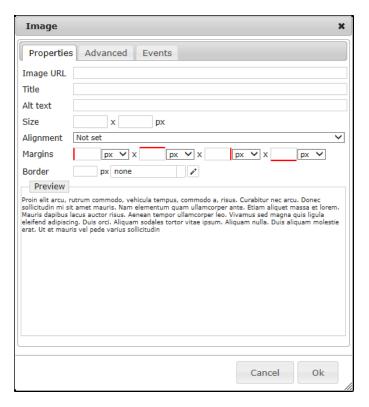
- 3. Complete the fields as needed. You can define the width and height, as well as the border and shading for your horizontal rule.
- 4. Click OK.

Accela Automation places the horizontal rule (line) as defined.

### Inserting a graphic

- 1. With the form layout tool open, position your cursor where you want to place the graphic.

The Image dialog box displays.



- 3. In the URL field, enter the location and name of the graphic you want to insert. You can use a URL address or a file directory address (for example, c:\graphics\agency seal.jpg).
- 4. Complete the remaining fields (see Table 20: Ad Hoc Reports Form Layout Tool: Image Properties on page 873).
- 5. If you are an experienced HTML or XML coder, you can use the Advanced and Events tabs to further define the graphic. Use the Advanced tab to define CSS class and style. Use the Events tab to define events for the image, such as onclick.
- 6. Click OK.

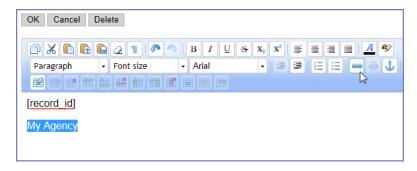
Accela Automation places the image (and image frame) as defined.

### Adding a Hyperlink to a Form

You can create hyperlinks in your forms as needed. When your report runs, the hyperlinks you created provide readers of the electronic report with a link to a URL you specify. For example, you can insert a hyperlink that customers can click to access your agency's website.

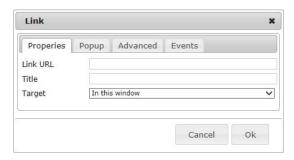
### To add a hyperlink to a form

- 1. With the form layout tool open, position your cursor where you want to create the hyperlink.
- 2. Enter the text that you want to use as the base for your hyperlink. For example, if you want to create a hyperlink to your agency's website, you can enter your agency's name.



- 3. Highlight the text that you want to use for your hyperlink.
- 4. Click the Create Link button .

The Link dialog box displays.



- 5. Enter the URL that you want to launch when a reader clicks the hyperlink. For example, enter http://www.accela.com to launch the Accela website.
- 6. Use the Target field to define whether you want the linked site to display in the current window or in a new window.
- Click OK.

Accela Automation displays the new link as a colorized, underlined object. When you run the report, or when you use Preview, you can test the link.

### Adding a Bookmark and Linking to It

You can add a bookmark to an object within a form, and then create a link to that bookmark from another location within your form. For example, you can insert a bookmark where your agency's address and phone number appear in the form, and then create a hyperlink in the form body that instructs the reader to click the link to see the agency address.

#### To add a bookmark and create a link to that bookmark

- 1. With the form layout tool open and your form displayed, position your cursor where you want to insert the bookmark. This location is the destination for the link you want to create.
- 2. Click the **Bookmark** button 🕹.

Accela Automation inserts an invisible marker in the form at the location you indicated.

- 3. Go to the location in your document where you want to create the hyperlink.
- 4. Highlight the text that you want to use for your hyperlink.
- 5. Click the **Create Link** button ...

The Link dialog box displays.



- 6. From the Bookmark drop-down list, select the name of the bookmark you created.
- 7. Use the Target field to define whether you want the linked site to display in the current window or in a new window.
- 8. Click OK.

Accela Automation displays the new link as a colorized, underlined object. When you run the report, or when you use Preview, you can test the link.