



Sopheon Accolade®

Process Design - Charts and Reports Design Training Guide

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About Sopheon Accolade®

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About the Accolade Education Program

This module is part of the Sopheon Accolade Education Program (AEP). The AEP modules are designed to help Accolade users perform the tasks in their company's business process using the Accolade application. The content in the modules is meant to be used side-by-side with the application, and is part of the overall documentation suite provided for Accolade.

The benefits of using Accolade as part of your company's innovation development process include the following:

- Reduced cycle time by displaying clear structure and visibility.
- Reduced rework through timely, properly sequenced completion of all key tasks and milestones.
- · Assured positive user experience through properly developed product requirements.
- · Improved communication by automating collaboration between multifunctional team members.
- Provided decision-making information. Poor projects are stopped or placed on hold so resources
 can be redirected to more promising and higher value projects and products.
- Provided clear project requirements. Expectations of a project team and project manager at each stage are clearly spelled out.
- · Managed business risk. Break resource commitments into increments or stages.
- Established key baseline information and metrics.

The Accolade documentation suite contains the following additional components:

Document	Contents
Sopheon Accolade What's New in This	For each release, review this document for an
Release	overview of the new features and changes within the release.
Accolade Online Help	Accessible directly through Accolade, the online Help
	provides comprehensive how-to and reference information about all aspects of using Accolade.
Sopheon Accolade Administrator's Guide	Provides information for administrative professionals
	regarding Accolade setup. This information is also provided in the online Help.
Sopheon Accolade Installation Guide	Provides information about the installation of the
	application and its required databases.
Dashboards for Accolade Installation Guide	Provides installation information for installing the
	Dashboards for Accolade component.
Quick Reference Cards	A PDF that can be printed double-sided that provides quick tips and navigation information for using Accolade.

Document	Contents
Online Help for Accolade Add-ins	Accolade add-ins, including Accolade Office Extensions, Accolade SmartDocuments for Google, Accolade SmartDocuments for Office, Accolade Portfolio Optimizer, and Accolade's integration with Microsoft Project, each include their own Sopheon created Help file accessible directly from the application after the add-in is installed. Each Help file describes how to use the features of that particular add-in.

Prerequisites for Using this Module

The contents of this training module assumes you are assigned the Accolade user roles and have a basic understanding of the terms and concepts listed below and how they are used in your installation. In addition, the content in the related training modules listed below may be helpful before reviewing the contents of this module.

Accolade User Roles

· Process Designer

Terms and Concepts

- Metadata
- Metrics and Matrices
- Reference Tables
- User roles and rights
- · Access Groups
- SQL Queries

Related Training Modules

· Process Design Overview

Designing Charts and Reports

Reporting in Accolade provides a means to summarize and analyze project and other data within your database, in a format and manner that is most applicable to your organization and data needs. Reports can range from user login attempts to much more complicated reports used to analyze projects and completion efficiency or financial information.

Reports can include:

- Metrics
- · Project metadata
- · System data, such as user information
- · Accolade field codes
- · Reference table fields

Creating and adding reports within Accolade requires that you complete the following:

- 1. Determine what report type to create.
- 2. Define the basis for the report. This is a shell or template structure. When reports are viewed they are populated with data from Accolade.
- For MS Excel and HTML Reports, add the report to Accolade. Online reports created within Accolade are added automatically.
- 4. Assign who has access and where the report displays.

Report Formats

Reports in Accolade can exist in the following formats:

- Accolade Online Reports Online reports created within Accolade are built and viewable
 directly within the application without having to write a SQL query. These reports provide an ondemand reporting experience and can be used for the creation of Accolade charts. The ability to
 create and modify online reports is available to any Accolade user assigned All Reporting Rights,
 and anyone with Refresh Workbook Data rights can view these reports. These reports can be
 added to the Charts & Reports page within Accolade, and can be added to a pod within a layout
 in order to view them in projects.
- HTML Reports HTML reports can be built using a single SQL query to gather data from the
 database, and display as a table in a secondary browser window. This format has no additional
 formatting available, so can be useful for simplistic reports, for example, to determine where
 process models are being used or to review user access history. HTML reports are also available
 for users to send or receive via email. These reports can be added to the Configuration >
 Charts & Reports tab within Accolade and can be added to a process model for availability in a
 project.

MS Excel Reports - MS Excel reports are built and viewable in Excel, provide flexibility in
formatting, and are created using the Accolade Office Extensions add-in application. The add-in
provides an interface to create a data report based on Accolade data. You can also create MS
Excel reports using a template and the Accolade query infrastructure, creating reports based on
data pulled into the spreadsheet using queries. These reports can be added to the
Configuration > Charts & Reports tab within Accolade and can be added to a process model
for availability within a project.

Each report type can contain the same data. The report type you choose to build depends on where the report needs to display within Accolade, the means you want to use to build the report, and the amount of formatting required to make the data within the report useful when viewing.

Report Access

Anyone in your organization can design a report, and anyone with All Reporting Rights can create and save an online report. However, only Administrators and Process Designers can create MS Excel or HTML reports, or set online reports as available for all users to view within Accolade. Only Process Designers can associate a report with a process model to display within a project.

Users must have either Refresh Workbook Data or All Reporting Rights for access to view shared reports in the **Charts & Reports** page and through the projects to which they have access. If the report is restricted by role and/or by access group, users must have a system user role that matches the report and/or be assigned to an access group that matches the report.

Additional rights are required to create and refresh report data using the Accolade Office Extensions add-in.

Chart Formats

Charts in Accolade can be created using an Accolade online report as a source, and can exist in the following formats:

- Bar charts
- Le Grouped bar charts
- Stacked bar charts
- Bubble charts
- k Line Chart Trends charts
- **l** Pie charts
- 论 Radar charts
- 🚇 Unknown or custom charts

The chart type you choose to build depends on the data to be displayed, so it is important to select appropriate data types to render a meaningful chart.

Charts Access

Using Accolade online report data, users with All Reporting Rights can create charts on the **Charts & Reports** page. Administrators and Process Designers can set charts as available for sharing with other users, and can add a chart to a pod within a layout to display on a project page or as a global link.

Users must have either Refresh Workbook Data or All Reporting Rights for access to view shared charts in the **Charts & Reports** page and through the projects to which they have access. If the chart is restricted by role and/or by access group, users must have a system user role that matches the chart and/or be assigned to an access group that matches the chart.

Filtering Capabilities

Take advantage of Accolade's filtering capabilities to assist users in identifying specific charts and reports from their list. Users now have the ability to filter their Charts & Reports list by Name, Category, and Type:

- · Access the Accolade application.
- Navigate to the My Charts & Reports section.
- View and manage the filtering options on the top-right corner: Name, Category, and Type.

Reports Best Practices

Keep the following set of best practice recommendations in mind when creating and planning charts and reports:

- Consider Project and Data Security Remember, reports respect the security features such as access groups and security lists that Administrators have defined within the system. For example, users who select to receive an HTML report through email receive a report that contains only information for projects to which they have access. However, reports contained in emails, including those added as attachments, can contain private information that should not be shared internally or externally. Use the Report Privacy Warning Text system parameter to add a line of warning text to Accolade Online reports, HTML reports, and reports created using Accolade Office Extensions, to indicate the private or confidential nature of the report contents. The parameter provides 500 characters for the message.
 - In addition, all reports created using Accolade Online Reporting and Accolade Office Extensions contain a custom property that identifies the generated file as a file with Accolade data. To help ensure sensitive data is not forwarded, use the filter options on your email server to prevent files that contain the custom property from being forwarded using email.
- Choose the Best Report Format and Creation Method The report type you choose to build depends on where the report needs to display within Accolade, the means you want to use to

build the report, and the amount of formatting required to make the data within the report useful when viewing.

Method	Advantages	
Accolade Online Reporting	Accolade Online reports use a reporting interface similar to that provided with the Accolade Office Extensions, but without having to leave Accolade and without having to access Excel.	
	Accolade Online reports provide an on-demand, in-application way to generate a report and ensure that the report always displays the real-time data from Accolade.	
Accolade Office Extensions	Accolade supports .xlsx, .xlsm, .xltx, and. xltm file types for MS Excel reports. Accolade Office Extensions provides an interface to create a data report. Creating reports in Excel also allows for Excel formatting, as necessary.	
	You can use reports created with Accolade Office Extensions in your process documents, add them to related documents, email them, use them for your own research, or (if you are an Administrator or Process Designer) you can activate them on the Configuration > Charts & Reports tab or on the Reports List pod in projects.	
SQL Queries	Complicated tables may require the use of SQL queries, for example, tables that require aggregations other than sum, average, minimum, maximum, or standard deviation, or in tables with filters joined with "or".	
	SQL queries leverage the reporting views to gather data from the Accolade database and require some knowledge about writing a successful query to gather the information you want. You can also write your own custom reporting views to retrieve information from the database.	
	When you create charts and reports based on SQL queries, you can include them on the Charts & Reports page or on the Reports List pod in projects, but you cannot add these reports to documents or use them in the other ways that are available to Excel reports.	

Accolade Online Reporting Overview

Accolade Online Reporting provides an on-demand reporting option and can be added to the **Charts & Reports** page within Accolade. Any Accolade user assigned All Reporting Rights can create online reports within Accolade.

An online report consists of the following components:

• **Data columns** - Determines the area of the database, for example Projects or Access Groups, that are available to retrieve information from.

- Filters Specifies the criteria to match to include data in the report from specified columns.
- Users Indicates which Accolade users have access to view and edit the report. Each selected
 user must have report refresh rights to see the report. Users with all Reporting Rights also have
 access to change the selected columns and filters within the report definition.

Creating Online Reports within Accolade

Online reports provide an on-demand reporting option and can be added to the **Charts & Reports** page within Accolade. Any Accolade user assigned All Reporting Rights can create online reports. Generated content can be added as a report in a project by adding a Report pod to a layout, and then adding the layout to a process model.



Use the **Report Privacy Warning Text** system parameter to add a notification within the report to indicate the content is private or confidential, and should not be forwarded to others.

To create an online report within Accolade:

1. From the Workspace menu, select Charts & Reports.

To narrow the list, search by the report name or category.

Note: Process Designers can also create or edit charts, reports, and related configuration by navigating to the **System** menu and selecting **Content Sources > Charts & Reports Manager**.

- 2. Do one of the following:
 - To add a new report Click Add New and select Online Report from the drop-down list.
 - To copy an existing report Locate the report you wish to copy on the Charts & Reports
 page.
 - Click in the **Copy** column. Select, add, or rearrange the columns you wish to keep. You can also add filters and advanced matrix settings. Click **OK** to save changes and progress to the next step. Give your newly copied report a name, a system name, a category, and a description. Decide if you wish to transpose the column and row data. Click **Save** to create the report.
 - To edit an existing report Click the name of the report on the Charts & Reports page to open it for editing, Click to edit the report columns, or click to edit the report details.
 - Only users assigned as report owners and Process Designers with All Reporting Rights can edit report columns and details.
- 3. Select a subject from the drop-down list, such as **Projects** or **Users**, to display the column sets available within that subject.
- 4. Double-click or drag and drop the column names from the left side of the dialog to any area in the **Selected Columns** tab to include the column in the report.

- To search for a column, enter search criteria in the **Find** field after selecting the subject.
 Use the and options to expand or collapse the subject data sets in order to select
- To include an entire column set, drag and drop the column set to the **Selected Columns** tab.
- To change the column order of selected columns, drag and drop a column into a new location within the list.
- To display the totals for number columns, check the Show Totals option to indicate that you would like to sum up a number column into a Totals row at the bottom of the report.
- To remove a column, click in the corresponding row.

specific column options.

- 5. (Optional) Refine the content of the report as necessary using one or more of the following options.
 - **Rename columns** Click in one or more selected columns and enter a new column name that is more appropriate for the report you are creating.
 - Set column sorting Click next to one or more selected columns to indicate whether the column is sorted in ascending or descending order. If you select more than one column to sort by, indicate the order in which the columns sort; 1 being the primary sort, 2 the secondary sort, and so on.
 - Create project links If the Project Name report column is selected for inclusion in the
 report, select the Is Link check box to make the project name in a report linkable to the
 project's home page.
 - Define column properties In the Properties area, define the column display and behavior
 including grouping items together to aggregate them and Excel date intervals. Aggregate
 selections are only available for number metric columns.
 - For example, to summarize the total costs for all projects within a brand, select **Sum** as the aggregate value in a column that represents the total costs for a project. The aggregation displays automatically when the report is selected to display in a chart.
 - Data Format If the column contains a date or a number, select how the data should be displayed. The currency symbol that displays for numbers is defined in the Currency Symbol system parameter.
 - Hide columns Make a selection in the Show check box to show or hide columns within the displayed report.
 - Add Count Column If you select to summarize values within the report, click Add
 Count Column to add a column that shows how many rows of source data are combined in
 the summary row.
 - You can order and rename the added column as you can other columns; however, you can add only one **Count** column to the report.

- Add Calculated Column Click Add Calculated Column to add a column to the report that displays a calculation based on other column data.
- 6. *(Optional)* On the **Selected Filters** tab, double-click or drag and drop the column name from the left side of the dialog to any area in the **Selected Filters** tab to use it as filter criteria that data must match to be included in the report.
- 7. On the **Advanced Matrix Settings** tab, if more than one matrix was selected in the report columns, click **Add** to add the matrix join definitions.
- 8. Click **OK** to exit the dialog and return to the report settings.
- 9. Enter the following information to identify the report:

Required fields display with **red** text and an asterisk * if the field is empty.

Field	Description	
Name	Enter a name, up to 64 characters long, which identifies the report.	
System Name	Enter a unique, shorter name that identifies the report in queries, reporting views, field codes, and other places in Accolade.	
	The name must be unique among online reports and can contain only letters (English alphabet), numbers, and the underscore.	
Category	Enter or select the group to which this report belongs.	
	Use categories to organize like reports together. For example, if there are a large number of reports that the IT department uses to track user logins, use a category to group those reports together.	
	Leave this field blank to add to the Default category.	
	To define a new category, select New Category and enter the category name.	
	To delete a category, remove every item from the category. Empty categories are deleted automatically.	
Description	Enter a description of the purpose or nature of the report.	
	This description helps other users identify the report throughout the system.	
Transpose	Select this check box to transpose the column and row data when the report is rendered.	
Owners	Click and select the additional users who can edit the report	
	configuration.	
	To filter the list of users, enter one or more search criteria to filter by name, login name, email address, function, or extended field.	
	Clicking Select current user will assign the role to the	

Field	Description	
	current user (if they have the appropriate rights).	
	Selecting a Function in the drop-down will display available users that are assigned to the function. The current selection defaults to the function to which you are assigning a user, however depending on the project configuration, you can assign any user.	
	Clicking Clear Filters removes the current user assignment and displays [None] to indicate that no user is assigned.	
	An assigned owner with All Reporting Rights can view, update, delete, or add additional owners to the report. An assigned owner who has Refresh Workbook Data rights will only be able to view the report. To make the report available for all users or for configuration setup, you must have a Process Designers with All Reporting Rights as an assigned owner.	

10. (All optional, available in configuration only) Enter the following information to make the chart publicly available.

Field	Description	
Override project filtering	Select this check box to include the entire report set from within a project.	
	The report will not filter to project-specific data when viewed from within a project, and will display all projects in a portfolio regardless of security.	
	Note This check box will not be available for selection if the Filter to Portfolio check box is selected.	
Filter to Portfolio	Select this check box to display the Portfolio Levels To Display slider.	
	Note This check box will not be available for selection if Override Project Filtering check box is selected. This check box is optional and is not mandatory.	
Portfolio Levels To	Select this toggle as well as the Filter to Portfolio check box so	
Display	that the report will filter to that project Portfolio Hierarchy	
	instead of the default of filtering down to just that project.	
	Note This toggle is optional and is not mandatory.	
Available to Charts &	1 1 7	
Reports	users to access and view the report.	

Field	Description	
	Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the report in the Shared Charts & Reports section on the Charts & Reports page.	
Available to Configuration	Select this check box to make the report available for use in configuration.	
Roles	Select the user roles that have access to view the report. Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the report on the Charts & Reports page.	
Configuration Access Groups	When either Available to check box is selected, access groups must be defined for the report.	
	The access groups displayed are based on the current user's access group permissions and the access groups the report belongs to. Additionally, Process Designers with matching permissions will be able to edit and view the report.	
Process Model Usage	Click the Process Model Usage button to see a list of process models that the online report is associated with.	
	The list includes all process models the report is included in, as well as links to the process model's component tree pages you have Edit access to.	

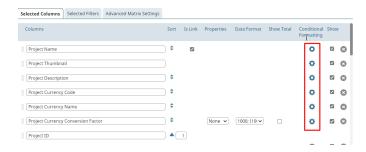
Note: Clicking either Available to check box will place the report in the Shared
Charts & Reports section of the Charts & Reports page. If neither check box
is selected, the report will only be available to the assigned owners in their My
Charts & Reports section.

- 11. (Optional, available in configuration only) Set up the report for export.
- 12. *(Optional)* Click in the upper right corner to display a preview of the report contents prior to saving, or click to download the report to a spreadsheet file.
- 13. Click **Save** to create a new report, or to save changes to an existing report.

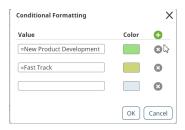
Conditional Formatting in Reports

Accolade users need an easy way to focus on the most critical information in the report. Users can easily use conditional formatting on report columns such as date, number, or text to focus attention on the key data to drive decisions on projects. Users can specify a formula that tells the report how to color the background of the cells in a given column. For example, while setting up the report, one can choose to highlight the project duration column which will show the long-running projects as risks. The user would be specifying the criteria such as a project running greater than 500 days will have the color red, projects running between 200 and 500 days will be yellow, and projects running less than 200 days will be green. This will effectively highlight projects that have been running for a very long time.

- 1. Access the report you wish to configure.
- 2. Click the **Settings** icon at the top right of the report page. The **Selected Columns** screen will appear.



3. Select the Settings icon in the **Conditional Formatting** column. The **Conditional Formatting** modal will appear.



- 4. Configure the fields. Click the **OK** button when finished.
- 5. Click the OK button on the **Select Columns** page to finalize preferences.

How Do I Know the Feature is Working?

Users have the ability to input formulas into the Value fields of the Conditional Formatting modal. Use Rational and Logical Operators to express what actions should take place when the desired criteria is met. Follow the steps below to guide you through this feature. IF help is needed, use the Valid Operators as a reference.

Relational Operators	Logical Operators
= (Equals)	Or, (Double Pipe)
<> (Does Not Equal)	And, &&
>= (Greater Than or Equal To)	
<= (Less Than or Equal To)	
> (Greater Than)	
< (Less Than)	

- To make a valid formula, you need at least one of the relational operators from the table above, and at least one value.
 - i.e. = Red
 - i.e. >=0
- If you're using any logical operators (i.e. &&) then you'll need at least 2 relational operators and at least 2 values per logical operator.
 - i.e. >1 || <0
- Comparisons to Dates need to be specified in the YYYY-MM-DD format.
 - i.e. < 2025-03-25, if you want all dates less than March 25th 2025 to be formatted.

Notes:

- To delete a saved online report, click the name of the report on the Charts & Reports
 page and click Delete at the bottom of the page. Only the report owner, users assigned as
 owners with All Reporting Rights, and Process Designers with All Reporting Rights can
 delete the report.
- To include a project's thumbnail image in the report, add the **Project Thumbnail** column available in the **Project Details** column set.
- A reference table must also be added to Accolade as an online report in order to be
 available to use in reporting. The reference table information is included by selecting the
 Reference Tables option when selecting columns to be included in the report.
- The process model determines whether the report is available at the project level. When
 viewed through a project, only data that pertains to that project displays in the report,
 unless Override project filtering is set in the report configuration. Non-project related

information displays identically in both locations. Click on the **Reports** page of the project to print the list of charts and reports that display.

- Using filters that reference data with square brackets may not return correct results. It is
 not recommended to use square brackets in naming projects or other Accolade data, as
 these characters are not supported in filtering and calculation functionality.
- Use the Currency Symbol system parameter to specify the currency symbol that displays in the Data Format field when creating charts and reports.
- Users can now use the phrase "NULL_OR_EMPTY" in the Conditional Formatting feature
 to format NULL/[EMPTY] values (Determined by the Replace Empty Values parameter 1
 ([EMPTY]) 0 (NULL)).

Adding Calculated Columns to Online Reports

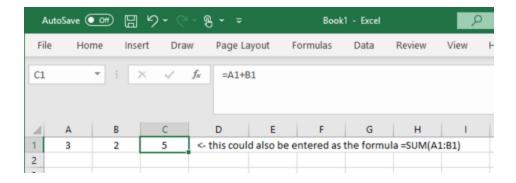
Reporting details can be contained in multiple sources within Accolade. To combined related data values to be used for reporting or the creation of charts or presentations, users can create reports that include calculated columns that calculate and/or display combined data, allowing users to manipulate and analyze Accolade data values.

For example, a user may have several different project metrics that represent categories of project costs such as Administrative, Operating, Marketing, etc. In order to calculate and display the sum of these project costs within an Accolade report or chart, the user can include a calculated column in their report setup.

Writing a calculated column formula in Accolade is slightly different than writing an equation in math class, or using formulas in Excel. The most notable difference is the use of the equal sign (=).

For example, if you want to add the numbers 3 and 2:

- In math class, the equation would read 3+2=, with a calculated value of 5.
- In Excel, formulas start with the equal sign, so it would look like =3+2. When entered, the value in
 the selected cell would return as 5. If you wanted to add two cell values, it would look something
 like =A1+B1 or =SUM(A1:B1). Assuming the values in A1 and B1 were 3 and 2 respectively, it
 would return the value 5.



In Accolade online reporting, the equal sign is assumed, so it does not need to be included in the formula field. If you wanted to add the values of Column A and Column B, it would look like
[Column A] + [Column B] or Sum([Column A], [Column B]). Assuming the first row values of Column A and Column B were 3 and 2 respectively, it would return the value 5.

Example Report			
WARNING: Do not share confidential information. Violators will be prosecuted!			
Project Name	Column A	Column B	Sum of Columns A & B
Project Example 1	3	2	5
Project Example 2	4	9	13
Project Example 3	2	7	9

To add a calculated column to an online report:

Note: See below for a list of calculations that are currently supported for reporting.

- 1. Create a new report or open an existing report for editing.
- 2. On the **Selected Columns** tab, ensure the columns to be used in the calculation are included in the report.
 - Report calculations are executed from left to right. In order for selected columns to be used in a calculated column, they must a) be selected as a column for the report, and b) be included before they are referenced by a calculated column (this means they must appear to the left of the calculated column when displayed, or above the calculated column when selecting columns in the report setup).
- 3. Make a selection in the **Show** check box to show or hide columns within the displayed report. If you want to use the columns as a reference for calculated column formulas but do not wish to display them in the report, clear the Show check box. Hidden columns can still be used as a reference for calculated columns, but will not appear in the report when displayed.
- 4. Click Add Calculated Column.

The column is added with two fields - one for the display name for the column, and one for the formula to be calculated.

- 5. In the top field, enter the column name to be displayed when the report is generated.
- 6. In the f field, enter the formula to be calculated within the report.

When entering your formula, the columns are referenced by enclosing the column display name inside of square brackets. In the example above, Column A is entered as **[Column A]**.

- 7. Select the appropriate datatype for the calculated column.
 - **Date** Select this option when you want the column data to display as a Date datatype, for example when using the DateAdd function to project a future project date.
 - Number Select this option when you want the column data to display as a Number datatype, for example when using the Sum function to combine the values of two or more columns of expense values.
 - String Select this option when you want the column data to display as a String datatype, for example when using the Concatenate function to display user name and functions combined in one column.
- 7. (Optional) Drag and drop the calculated column to a new location within the list.

Note that while the calculated column cannot be displayed in the report until after its reference columns are displayed, you can have calculated columns that are displayed between data columns as necessary. Using the example above, after the **Sum** column we could add **Column C** and **Column D** to the report and then add another calculated column, and so forth.

- 8. Click **OK** to exit the dialog and return to the report settings.
- 9. Finish setting up the report, as necessary.
- 10. (Optional) Click in the upper right corner to display a preview of the report contents prior to saving, or click to download the report to a spreadsheet file.
- 11. Click Save to create a new report, or to save changes to an existing report.

Available Formulas for Calculated Columns in Reporting

The following section details the operators and functions that are available for use when creating your calculated column formulas.

Important! Note that the examples use "Column A", "Column B", and "Column C" to generically refer to the display names of different columns that are included in the report data.

Operators

Operators are process or mathematical parts of expressions, such as addition and multiplication, and relationships such as greater than or less than. Use the operators below within your calculated column expressions.

Operator	Example			
Additive and Subtractive Operators				
+ (plus, plus sign)	[Column A]+[Column B]			
- (minus, dash)	[Column A]-[Column B]			
Multiplicative Operators				
* (multiplied by, asterisk)	[Column A]*5			
/ (divided by, slash)	[Column A]/[Column B]			
% (mod, percent sign)	[Column A]%10			
Primary Operators				
value (integers, text strings, dates, functions)	('this is a text string') While single quotes work for dates, we recommend wrapping dates in pound or hash signs instead to ensure consistency of data types. For example, (#2021-10-19#).			
()(parentheses)	1000-(6*[Column A])			
Relational Operators				
= (equals)	[Column A]=250			
<> (does not equal)	[Column A]<>[Column B]			
> (greater than, angle bracket)	[Column A]>250			
>= (greater than or equal to)	[Column A]>=250			
< (less than, angle bracket)	[Column A]<500			
<= (less than or equal to)	[Column A]<=100			
Logical Operators				
or, (double pipe)	[Column A]<[Column B] [Column A]<500			
and, &&	[Column A]<[Column B]&&[Column A]<1000			

Functions

The functions included in the calculated column formula determine in part what is returned in the column. Use the functions described below within your calculated expressions to return data within a calculated column.

For more information on the description or formatting for the calculations below, see Calculated Metric Expressions Reference.

Function	Example Formula
Abs	Abs([Column A])
Acos	Acos([Column A])
Asin	Asin([Column A])
Atan	Atan([Column A])
Avg	Avg([Column A], [Column B], [Column C])
Ceiling	Ceiling([Column A])
Concatenate	Concatenate('text1',[Column A], 'text2', 'textN')
Contains	Contains([Column A], 'My Blue Heaven', 2, 7)
Cos	Cos([Column A])
DateAdd	DateAdd('D', 5, [Column A])
DateDiff	DateDiff('D',[Column A], [Column B])
DatePart	DatePart('M', [Column A])
Exp	Exp([Column A])
Find	Find([Column A], 'My Blue Heaven', 2, 20)
First	First([Column A], [Column B], [Column C])
Floor	Floor([Column A])
IEEERemainder	IEEERemainder([Column A], [Column B])
If	If([Column A]>500, 'Go ahead', 'Stop')
In	In([Column A], 1, 2, 3)
Join	Join([Column A], [Column B], [Column C]), ' ')
Length	Length([Column A])
Log	Log([Column A], 10)
Log10	Log10([Column A])
Lower	Lower([Column A])
LTrim	LTrim([Column A])
Max	Max([Column A], [Column B], [Column C])

Function	Example Formula
Min	Min([Column A], [Column B], [Column C])
Now	Now()
Pow	Pow([Column A], 2)
Replace	Replace([Column A], 'Blue', 'red')
Round	Round([Column A], 2)
RTrim	RTrim([Column A])
Search	Search('blue', [Column A], 5, 30).
Sign	Sign([Column A])
Sin	Sin([Column A])
Sqrt	Sqrt([Column A])
SubString	SubString([Column A], 4, 10)
Sum	Sum([Column A], [Column B], [Column C])
Tan	Tan([Column A])
Trim	Trim([Column A])
Truncate	Truncate([Column A])
Upper	Upper([Column A])

Notes:

To delete a calculated column from a report, click the name of the report on the Charts & Reports page and click to display the report columns. Click the Selected Columns tab, and click in the corresponding calculated column row to delete it. Click OK to close the dialog and click Save to save the changes to the report.

Adding Dynamic Filters to Online Reports

Capture and filter report data using relative metric and metadata field codes to create dynamic reports that display data according to the project it is viewed within. Filtering reports based on relative metrics and metadata field codes allows you to narrow the returned data set while still generating a higher-level view. Dynamic filters allow you to view a subset of data from within different projects.

Important! Ensure the **Override project filtering** check box is selected on the report settings. This enables the report to include data across a subset of projects.

To add dynamic filters to an online report:

- 1. Create a new report, or open an existing report for editing.
- 2. Click in the upper right corner to view the report details, and click the **Selected Filters** tab.
- 3. To add filters, double-click or drag and drop the column names from the left side of the dialog to any area in the **Selected Filters** tab.
 - To search for a column to add as a filter, enter search criteria in the Find field after selecting the subject.
 - To include an entire column set, drag and drop the column set to any area in the **Selected Filters** tab.
 - If multiple filters are added to the report, data must meet ALL filter criteria to be included in the report.
- 4. For each added filter, select the operator and filter criteria that report data must match to be included.

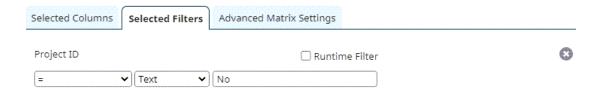
The filter operators are dependent on the column selected to filter by, and generally include options such as =, is empty, is one of, does not contain, and more.

The filter type must be selected from one of the following, and the following field identifies the criteria to be met:

- Metadata Enter the field code display name and select from the returned list. Ensure you
 enter a valid query field code. While some operators may work in global level reports, this filter
 type is designed to only work in reports pulled into project layouts via the Report pod (project
 level reports).
- Metric Enter the metric display name and select from the returned list. While some operators
 may work in global level reports, this filter type is designed to only work in reports pulled into
 project layouts via the Report pod (project level reports).
- **Text** Enter or select a static string or numeric value such as a date.
- **Current User** Filters the report to data only applicable to the user logged in and viewing the report. Current User is only available for numeric or ID data type columns.
 - Type ahead to search for metrics and field codes when defining the filter criteria.

 Only metrics and field codes that match the data type of the filter display for selection. For example, if you select a date filter, you can only select date metrics or field codes to define the relative filter.

For example, to create a report that returns a list of deactivated users, filter on the User Active column to return only users where the active flag is set to **No**. To set up this filter, the operator selected is **=**, the type selected is **Text**, and the criteria is **No**.



- 5. *(Optional)* Select the **Runtime Filter** check box to determine what filters are available for users to apply when refreshing the data in the report.
- 6. Click **OK** to exit the dialog and return to the report settings.
- 7. Finish setting up the report, as necessary.
- 8. (Optional) Click in the upper right corner to display a preview of the report contents prior to saving, or click to download the report to a spreadsheet file.
- 9. Click Save to create a new report, or to save changes to an existing report.

Notes:

- To delete a filter from a report, click the name of the report on the **Charts & Reports** page and click of to display the report columns. Click the **Selected Filters** tab, and click in the corresponding filter row to delete it. Click **OK** to close the dialog and click **Save** to save the changes to the report.
- Filter icon will not appear if there are no filters available for users to apply.
- Long string and multi-select list metrics are currently not supported for use as metric filters.

Adding Multiple Matrices to Online Reports

Reporting details can be contained in multiple sources within Accolade. To consolidate data into a single source to be used for reporting or the creation of charts or presentations, users can create reports to combine the data. Information from more than one project matrix can be pulled into a report by including a common value that is included in the sources, for example, using a Department or Region metric or a common Row ID.

In addition to selecting the matrix and metric columns to be included in the report, users must create join statements that define how the matrix information is related.



To add multiple matrices to an Accolade online report:

- 1. Create a new report or open an existing report for editing.
- 2. On the **Selected Columns** tab, select the matrices and metrics to be included in the report.
- 3. On the Advanced Matrix Settings tab, click Add to add the matrix join statements.
- 4. In each side of the dialog, select one of the matrices from the drop-down list, and select an option to use as the common value to join the matrices.

The two selected matrices must be different, but the matrix/metric combination can be any combination of metrics or row IDs, as long as the selected metrics share a common value and are of the same data type.

Selecting a metric will define it as the common value between the two matrices. Note that it can be the same metric if it is used in both matrices, or it can be different metrics that will have the same value in both matrices. In addition, a metric used as a common value does not need to be added as a reporting column in order to be used to create the join statement.

Selecting Row ID will compare matrices by rows, for example Row 1 in Matrix A will be compared with Row 1 in Matrix B, and so on. This can be used when there are no additional common values in the two matrices, and the matrices have a direct line-by-line comparison.



Caution! Selecting Row ID as a common value can cause inconsistencies in reporting. Since assigned Row IDs are not visible within a matrix, report results can be incorrect if rows have been deleted from a matrix or if there is a mismatch.



5. Repeat steps 3-4 to add additional matrix join statements as necessary.

All included matrices must have at least one related join statement, but a matrix can be referenced in more than one statement. For example, if you choose to include metrics from Matrix A, Matrix B, and Matrix C, you would need to create two statements to join the information. You could create a statement that relates A to B, and one that relates B to C, or you could have a statement that relates A to B, and one that relates A to C.

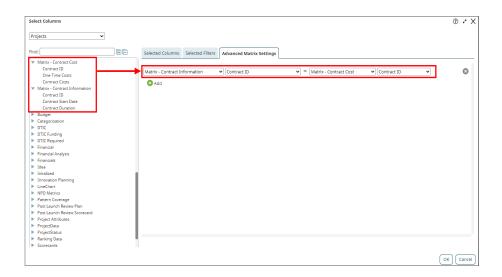
- 6. Click **OK** to exit the dialog and return to the report settings.
- 7. Finish setting up the report, as necessary.
- 8. *(Optional)* Click in the upper right corner to display a preview of the report contents prior to saving, or click to download the report to a spreadsheet file.
- 9. Click **Save** to create a new report, or to save changes to an existing report.

Note: [EMPTY] or blank cells in your report may indicate a mismatch in the common value linking the matrices. If the project value referenced in the join statement is not defined in one of the matrices, for example if there is not a matching value in both matrices, or a matrix contains empty rows, the report will return partial or full rows that contain [EMPTY] values.

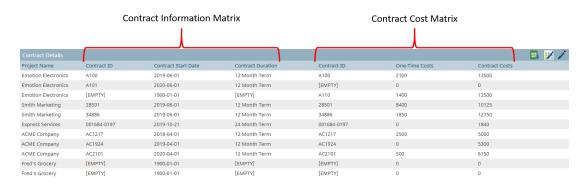


For example, a user has two different matrices that contain information related to vendor contracts for their projects, and needs to create a report containing relevant information from both matrices. They have a matrix named **Contract Information**, which contains the start date and duration of the specific contracts, and a second matrix named **Contract Cost**, which contains the costs related to the specific contracts.

To pull this information into one report, the user has added the related columns to the **Columns** tab, and created a join statement in the **Advanced Matrix Settings** tab that links the two matrices using the **Contract ID** metric that is a member of both matrices.



Once the user enters the remaining report details and clicks **OK**, the following report is generated:



Note the following:

The **Contract ID** field is the common identifier included in both matrices, and used to connect the relevant information.

The left three columns contain information that is from the **Contract Information** matrix in the related projects.

The right three columns contain information that is from the **Contract Cost** matrix in the related projects.

The highlighted sections below show two different scenarios that may indicate missing or incomplete data.

- Rows 2 & 3 of the report display [EMPTY] in some of the data cells, which indicates Contract IDs values that are not found in both matrices. In row 2, the information for contract A101 is only included in the Contract Information matrix, so the related Contract Cost matrix fields are [EMPTY]. In row 3, the information for contract A110 is only included in the Contract Cost matrix, so the related Contract Information matrix fields are [EMPTY].
- Rows 10 & 11 display [EMPTY] cells in all of the data cells, which indicates that one or more of
 the included matrices either does not have any rows added, or contains empty rows.

Note: Although the [EMPTY] returned values are an indicator of potential issues, the mismatched values reported are dependent on the datatype. String and list metrics will display as [EMPTY]. As shown in the example below, a number metric will display 0, and a date metric will represent the default 1/1/1900 date.



Notes:

To delete a matrix join statement from a report, click the name of the report on the Charts
 & Reports page and click of to display the report columns. Click the Advanced Matrix
 Settings tab, and click in the corresponding definition row to delete it. Click OK to close the dialog and click Save to save the changes to the report.

Downloading and Exporting Online Report Data

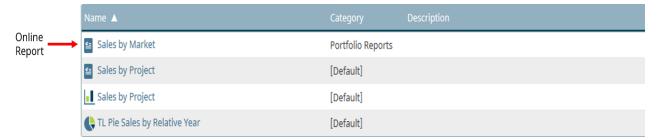
Users with access to a report can download the content of a saved online report directly from Accolade. Report creators can also set a report to export to a network location on a scheduled basis. Schedule a report for repeated exports if you save archive information on your network, or to provide access to a report to someone who is not an Accolade user.



To download report configuration and settings for the purpose of exporting reports between Accolade instances, see "Importing and Exporting Accolade Online Reports" on page 34.

To download a saved online report:

- 1. From the Workspace menu, select My Workspace > Charts & Reports.
- 2. Click the name of the report you want to view.
 - identifies reports created using Accolade Office Extensions. To refine the list of reports displayed, select a category from the **Category** field or use the **Search** field to search on report names and descriptions. If the **Category** field is unavailable, all reports are grouped within a single category.



3. Click in the top right corner of the report display page.

Accolade downloads the report contents to spreadsheet file and saves it to a temporary internet files directory, using the report's system name as the file name. Save the file to a more accessible location.

4. If the document is a template, Administrators and Process Designers with the Template Access role can save the file and add it to the Template Library as a process document.

If the document is a deliverable, activity, or gate document, the assigned document owners can save a version of the file to project.

To schedule a report to export to a network location:

- 1. From the System menu, select Content Sources > Charts & Reports Manager.
- 2. Do one of the following:
 - To create a new report Click Add New, select Online Report from the drop-down list and create a new report.

- To edit the export settings of an existing report Click the name of the report on the Charts & Reports Manager page and click in the upper right corner of the title in the displayed report.
- 3. In the **Export Days** field and the **Export Time** field, select the days of the week on which Accolade should export and enter the time the export should take place.

You must select at least one day to schedule the export. The export takes place based on the Accolade server's time, not your local time settings. If the Accolade server is located in a different time zone, ensure you are scheduling the time accurately for the export.

4. Complete the following to identify the export location and report name:

Field	Description
Export File Path	Enter the directory location where the exported file is saved.
	The Accolade timed task service must have access to the network drive. Work with your system administrators to understand what network shares are available for use.
Filename	Enter the file name for the report. To append a timestamp to the file name, select the Include timestamp check box.
	Timestamps can be helpful to identify exactly when a report was exported and saved to the network directory.

5. In the **File Type** field, select whether to download the file as a spreadsheet file, or as a file with a .csv extension which can be opened in other spreadsheet programs.

If you select to download to CSV and have text set in the **Report Privacy Warning Text** system parameter, the text is not included in the CSV file.

6. Click **Save** to save the report and the export settings.

Notes:

- The Timed Task Service must be enabled and running on the Accolade server for a scheduled export to save successfully. Contact your Accolade system administrator to ensure the service is running.
- If a scheduled export fails to save, the report creator receives a notification email about the failure.
- The colors defined in the Excel Header Background Color, Excel Header Font Color, and Excel Header Is Bold system parameters determine the formatting of the header rows within the spreadsheet file.

Adding Accolade Online Reporting Content to Templates

Add the content of a report created within Accolade to an existing document or template using a specific named range. When downloading the report, template, or a document version with the report content, the up-to-date Accolade data is included in the file.

A spreadsheet template containing content created within Accolade can also be used as the template for a deliverable or activity. Administrators and Process Designers with the Template Access role can save the file and add it to the Template Library as a Process Document type template instead of as a Report type.

To add content from an online report to an existing spreadsheet file:

- 1. Note the system name of the report in Accolade.
- 2. Select the cell within the spreadsheet where the report content should begin.

When the file is downloaded from Accolade, the report contents start at the cell with the named range, and expands to the right and below for the required number of columns and rows to accommodate the data.

Important! Any information in cells to the right of the one with named range could be deleted based on the report's content. Any information below the cell with the named range is pushed to below the report's content.

3. In the Name field for the cell, enter SGM_RG_<RGReportName> and press Enter.



For example, to include a report with the system name **ModelsInUse**, enter **SGM_RG_ModelsInUse** as the cell name.

Notes:

 Using this function to associate a spreadsheet workbook with report content to a project does not display project level data.

Importing and Exporting Accolade Online Reports

Accolade provides Administrators and Process Designers the ability to export Accolade online reports settings and configuration from one Accolade environment and import them into another Accolade environment. For example, your company may have separate test and production environments or company branches hosted in separate Accolade instances. Instead of having to recreate online reports in each environment, download the information and import into a different environment.

The download exports the online reports configuration information into a spreadsheet file with the parts of the reports grouped into tabs.

To export report settings:

- 1. From the System menu, select Content Sources > Charts & Reports Manager.
- 2. Select the reports that you want to download.

To narrow the list by report name or system name, add the criteria to filter by in the appropriate filter text box. These filters are case insensitive.

To narrow the list by category, select a category to display in the **Category** list. To download all charts and reports, select **All**.

3. Click **Download** in the top right corner of the page.

Accolade downloads all configured charts and reports in four separate spreadsheet files within a zip file, and saves it to a temporary internet files directory. Online report settings are downloaded to a workbook titled RPT Workbook.xlsx. Save the file to a more accessible location.

Note: Only components to which you have view and/or edit configuration access group rights will download. Components you can only view may be included in the file, but you can only upload changes to areas to which you have explicit edit permission.

To import report settings into Accolade:

- 1. Ensure the data within the spreadsheet meets the requirements for a successful import.
- 2. Remove any reports that you do not want to include in the upload from the spreadsheet and save the file.
- 3. From the System menu, select Content Sources > Charts & Reports Manager.
- 4. Click **Upload** in the top right corner of the page.
- 5. Click **Load File** and select the spreadsheet file to load. The file name must be prefixed with 'RPT_' in order to successfully upload.
- 6. Click Upload File.

Accolade uploads the changes to the existing reports in the spreadsheet, and adds any new reports with unique system names.

7. (Optional) Click **Print** to print the import results for your records.

Note: Components that are imported are subject to group configuration rules. The user may assign components in a way that the configuration access groups are not consistent. This behavior is not allowed in the UI, and mismatches in either the user's access rights or the component's access group restrictions may result in warning or error messages during the upload, and may result in an incomplete upload.

Online Report Settings Included in the Spreadsheet File

The columns in the downloaded spreadsheet include the settings and filters for each report in the order listed below. For a description of each report setting, see the Creating Online Reports within Accolade topic in the online Help.

Important! Using the import and export tools to update configuration can result in unintended changes if information is missing or creates an error during the import process. Sopheon recommends reviewing Importing and Exporting Configuration Best Practices in the online help before making changes in a production environment.

· Report Settings

The Report Settings worksheet contains the settings for the reports being imported.

Column Name	Accepted Values on Upload*	Additional Notes
System Name	Alphanumeric	Used for matching in the upload.
	characters, underscore**	If a report exists, its settings are changed with the values in the uploaded file.
		If it is new, a unique system name exists in the file when uploaded, a new report is created.
Display Name	Any	If blank, the report does not upload.
Category	Alphanumeric characters	If a new, unique category name exists in the file when uploaded, a new category is created.
		If left blank, the report is placed in the Default category.
Subject	Valid report subject	Used for matching for upload.
System Name	system name	If the Subject System Name specifies Project Snapshot History, a value must be entered in the Is Snapshot field on the Columns and Filters worksheet.
		If blank, the report does not upload.
Owner	Valid user system ID	Use the format with which the user accessed Accolade, such as domain\username or username@domain.com.

Column Name	Accepted Values on Upload*	Additional Notes
		If you are uploading a new report, the downloaded file can be changed to a new owner in order to transfer initial ownership when loading the file. If this field is left blank or has an invalid user ID entered, the system will assign the user completing the upload as the owner of the report. If you are making changes to an existing report via
		upload, the Owner column is ignored and will not update.
		If a downloaded report was created by a user that has been deleted, this file will reflect [None] as the report owner.
Additional Owners	Valid user system ID	Use the format with which the user accessed Accolade, such as domain\username or username@domain.com.
		Separate each additional owner by a pipe () character.
		Can be blank.
Roles	Valid Accolade user	Separate each role by a pipe () character.
	role	Can be blank.
Description	Any	Can be blank.
Override Project Filtering	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Export Days	Integers	Can be blank.
Export Time	Time value in	Can be blank.
Export File Path	Valid file path for the export to	Can be blank.
Export File Name	Alphanumeric characters, underscore**	Can be blank.
Export Include Timestamp	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Export File Type	Excel CSV	If blank, the setting defaults to Excel .
Available to Charts & Reports	Yes, Y, True, 1, X*	All other values are treated as No on upload.

Column Name	Accepted Values on Upload*	Additional Notes
Available to Configuration	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Transpose	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Transpose	Yes, Y, True, 1, X*	All other values are treated as No on upload.

^{*} For any column that accepts **Yes**, **Y**, **True**, **1**, or **X**, you can also enter **No**, **N**, **False**, or **0** if it helps you when entering data in the spreadsheet. All values other than **Yes**, **Y**, **True**, **1**, or **X** are treated as **No** when you upload the spreadsheet.

· Columns and Filters

The Columns and Filters worksheet includes the report column settings of the reports being imported.

Column Name	Accepted Values on Upload*	Additional Notes
Report System Name	Alphanumeric characters, underscore**	Used for matching for upload. If a report exists, its settings are changed with the values in the uploaded file.
Unique Group System Name	Valid reference table system name Valid matrix system name	Can be blank if Reporting Column Type is defined as Standard or Metric .
Reporting Column Type	Standard Reference Table Metric Matrix Calculated	The value is related to the Reporting Data Type value, and must match in terms of appropriate data types. If blank, the report does not upload.
Reporting Data Type	String Image List Number Date Boolean ID Multilist	The value is related to the Reporting Column Type value, and must match the column type. If blank, the report does not upload.
Column System Name	Valid report column- specific system name**	Used for matching for upload. If a report column exists, its settings are changed with the values in the uploaded file. If a new, unique system name exists in the file when uploaded, a new column is created.
Display	Any	Can be blank.

^{**} Limited to characters between a - z, A - Z, and 0 - 9, and the underscore ($_$).

Column Name	Accepted Values on Upload*	Additional Notes
Name		
Sort Order	Any number	The field is set to 0 on upload if no value is entered or the value is not a number.
Sort	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Ascending		
Property	Aggregation Method None Avg Min Max StDev Sum Date Mask Excel Dates Days Months Quarters Years Link	Link is only available for the Project Name report column. Can be blank.
Column Order	Any number	Must be a unique value for each column included in a report.
Display Column On Report	Yes, Y, True, 1, X*	Set the value to No , N , False , 0 if the column is only used as a filter and not a report column. Otherwise, set the value to Yes , Y , True , 1 , X and specify the Filter ID if applicable. All other values are treated as No on upload.
Filter ID	A	-
Filter ID	Any number	Must be a unique value for each filter included in a report.
		Can be blank if the report does not include filters and the Display Column On Report is set to Yes .

Column Name	Accepted Values on Upload*	Additional Notes
Filter Type	equal not equal greater than less than greater than or equal to less than or equal to is empty is not empty between contains does not contain is one of between days between dates days before days after	If a Filter ID is specified, the Filter Type must be defined. and values must be entered on the Filter Values worksheet. Can be blank if the report does not include filters and the Display Column On Report is set to Yes.
Is Snapshot	Yes, Y, True, 1, X*	If the Subject System Name on the Report Settings worksheet is set to Project Snapshot History , this field determines if the metric or matrix is part of the snapshot, and must have a value entered. Otherwise, can be blank. All other values are treated as No on upload.
ls Link	Voc V True 1 V*	· · · · · · · · · · · · · · · · · · ·
Formula	Yes, Y, True, 1, X* A valid expression	All other values are treated as No on upload. If Reporting Column Type is defined as Calculated , the Formula must be defined for the calculated column. Otherwise, can be blank.
Data Format	For columns containing dates: Days Months Quarters Years Excel Dates Timestamp For columns containing numbers: #;(#)	 Data Format only applies for columns that contain date or number values and specifies how the data displays when the report is run. Date columns - If blank, the value defaults to Excel Dates on upload. Number columns - If blank, the value defaults to #;(#) on upload.

Column Name	Accepted Values on Upload*	Additional Notes
	#,###;(#,###) \$#,###;(\$#,###)	
Show	Yes, Y, True, 1, X*	All other values are treated as No on upload.

^{*} For any column that accepts **Yes**, **Y**, **True**, **1**, or **X**, you can also enter **No**, **N**, **False**, or **0** if it helps you when entering data in the spreadsheet. All values other than **Yes**, **Y**, **True**, **1**, or **X** are treated as **No** when you upload the spreadsheet.

• Filter Values

The Filters Values worksheet includes the values of the filters defined on the reports being imported. This worksheet can be blank if the reports do not include filters.

Column Name	Accepted Values on Upload	Additional Notes
Filter ID	Any number	Used for matching for upload.
		If a filter exists, its settings are changed with the values in the uploaded file.
		If a new, unique system name exists in the file when uploaded, a new filter is created.
		Can be blank if the report does not include filters.
Filter Value Rank	Any number	Can be blank if only one filter is included in the report.
Filter Value Type	Text Field code Metadata Metric Current User	If the report includes filters and this field is blank, the filter does not upload.
Filter Value	Valid metric system name or field code	If the Filter Type on the Columns and Filters worksheet is defined as is one of , separate the metric or field code system name values with a pipe () character.
		If the Filter Type on the Columns and Filters worksheet is defined as between , the worksheet includes additional rows for each filter value. Additionally, concatenate an integer to the field code system name to further specify the field code. For example, a gate date field code would include an integer to specify if it is referencing gate date 1, 2, 3, etc. Can be blank.

^{**} Limited to characters between a - z, A - Z, and 0 - 9, and the underscore ($_$).

Column Name	Accepted Values on Upload	Additional Notes
Filter	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Runtime		
Filter		

^{**} Limited to characters between a - z, A - Z, and 0 - 9, and the underscore ($_$).

• Access Groups

The Access Groups worksheet includes the access groups for the reports being uploaded or downloaded.

Column Name	Accepted Values on Upload	Additional Notes
Report System Name	Alphanumeric characters, underscore**	Used for matching for upload. If a report exists, its settings are changed with the values in the uploaded file.
Access Group	Valid access group system name	Include a separate row for each access group.

^{**} Limited to characters between a - z, A - Z, and 0 - 9, and the underscore ($_$).

• Matrix Join Definitions

The Matrix Join Definitions worksheet includes the join definitions for reports being uploaded or downloaded that include multiple matrices. This worksheet can be blank if the reports do not include multiple matrices.

Column Name	Accepted Values on Upload	Additional Notes
Report System Name	Alphanumeric characters, underscore**	Used for matching for upload. If a report exists, its settings are changed with the values in the uploaded file.
Source Matrix System Name	Valid matrix system name	Used for matching for upload. Cannot be the same matrix referenced in the Target Matrix System Name field. If the report contains matrices and this field is blank or invalid, the definition does not upload.
Source Matrix Metric System Name	Valid matrix metric system name	Must be a metric that is included in the matrix defined in the Source Matrix System Name field. If this field is blank or invalid, the definition does not upload.

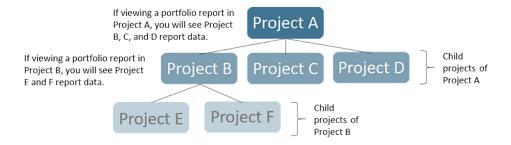
Column Name	Accepted Values on Upload	Additional Notes
Target	Valid matrix system	Used for matching for upload.
Matrix System	name	Cannot be the same matrix referenced in the Source Matrix System Name field.
Name		If the report contains matrices and this field is blank or invalid, the definition does not upload.
Target Matrix Metric System Name	Valid matrix metric system name	Must be a metric that is included in the matrix defined in the Target Matrix System Name field. If this field is blank or invalid, the definition does not upload.

^{**} Limited to characters between a - z, A - Z, and 0 - 9, and the underscore (_).

Creating Project Portfolio Level Reports

Use metric and metadata filters to create a report with a portfolio view that pulls child linked project values and is viewable within the parent project. Create portfolio level reports that use the related system project ID relative metadata filter to roll up and view data across projects in a portfolio. Configured portfolio reports allow you to create charts that visually display data representing the related projects.

In the example of a portfolio below, Project A is linked to Project B - D by Child Relationship link types, where Project A is the parent. Create a report with relative metadata filters of related system project ID and related project link type name. These specific metadata filters allow the report to identify and dynamically capture child project data. View the report from within project A to garner a portfolio view of project B-D data. If the same report is viewed from within Project B, Project E and Project F data would display.

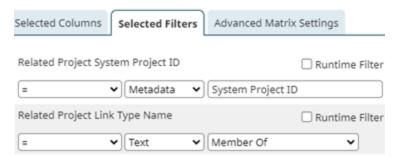


To create portfolio views in Accolade:

Note: The following procedure assumes a hierarchical portfolio structure with Child Relationship project link types. Adjust the filters according to link types to pull data

from projects with different relationships.

- Create a new report or edit an existing report, ensuring the Override Project Filtering check box is selected on the report settings.
- 2. Click in the upper right corner to view the report details, and click the **Selected Filters** section.
- 3. Select the **Projects** subject and expand the Project Related Projects group.
- 4. Add the following filters to the report:
 - · Related Project System Project ID
 - · Related Project Link Type Name
- 5. For the Related Project System Project ID filter, select the equals (=) operator and **Metadata** from the associated drop-down. Enter **System Project ID** as the metadata value.
- 6. For the Related Project Link Type Name select the equals (=) operator and **Text** from the associated drop-down. Select **Member of** as the filter qualifier.



- 7. Click **OK** to save the filter selections and return to the report settings.Click in the upper right corner to display a preview of the report contents prior to saving.
- 8. Click Save to save the report.
- 9. (Optional) Associate the report to a project via a layout or the project Reports page.

Notes:

• To delete a filter from a report, display the report from the **Charts & Reports** page and click to display the report columns. Click the **Selected Filters** section, and click in the corresponding filter row to delete it. Click **OK** to close the dialog and click **Save** to save the changes to the report.

Creating Charts from Report Data Overview

Online reports created within Accolade can be used to create new or copy existing charts that represent all or a portion of the data that is returned in the report. Charting options vary, and a wide variety of charts are included so you can create the best visual representation of the data in your system as possible.

Note: Line Chart By Columns has been removed as a chart option in Charts & Reports and Charts & Reports Manager. Users are encouraged to utilize Line Chart Trends as an alternative option.

Using Accolade online report data, users with All Reporting Rights can create charts on the **Charts & Reports** page. Administrators and Process Designers can set charts as available for sharing with other users, and can add a chart to a pod within a layout to display on a project page or as a global link.

Creating Bar Charts Based on Report Data

Bar charts use bars to represent and compare categories of data in a format that can be displayed horizontally or vertically. One axis will generally have numerical values, and the other will describe the types of categories being compared. In bar charts, the user can cycle through different views, that is, different categories of data to get a more comprehensive view of a portfolio's performance using the cycle icon .

Important! Select appropriate data types to render a meaningful chart. Numeric data types will chart bars successfully. The system will not prevent you from selecting different data types and will plot selected data as best as possible without error.

To create a bar chart based on report data:

1. From the Workspace menu, select Charts & Reports.

To narrow the list, search by the chart name or category.

Note: Process Designers can also create or edit charts, reports, and related configuration by navigating to the **System** menu and selecting **Content Sources > Charts & Reports Manager**.

- 2. Do one of the following:
 - To add a new chart Click Add New, select Chart from the drop-down list, and click the Bar Chart licon.
 - To edit the details of an existing report Click the name of the chart on the Charts &
 Reports page and click to edit the report details. Only users assigned as chart owners and
 Process Designers with All Reporting Rights can edit chart details.

3. Enter the following information to identify the chart:

Required fields display with **red** text and an asterisk * if the field is empty.

Field	Description
Name	Enter a name, up to 64 characters long, which identifies the chart.
	To display this name as the chart's title, select the Display as title option.
System Name	Enter a unique, shorter name that identifies the chart in queries, reporting views, field codes, and other places in Accolade.
	The name must be unique among charts and can contain only letters (English alphabet), numbers, and the underscore.
Category	Enter or select the group to which this chart belongs.
	Use categories to organize like charts together. For example, you may choose to group all the charts used in global layouts into the same category, in order to separate them from charts that are used in process model layouts or other reporting.
	Leave this field blank to add to the Default category.
	To define a new category, select New Category and enter the category name.
	To delete a category, remove every item from the category. Empty categories are deleted automatically.
Description	Enter a description of the purpose or nature of the chart.
	This description helps other users identify the chart on the Charts & Reports page.
Owners	Click and select the additional users who can edit the chart
	details.
	To filter the list of users, enter one or more search criteria to filter by name, login name, email address, function, or extended field.
	Clicking Select current user will assign the role to the current user (if they have the appropriate rights).
	Selecting a Function in the drop-down will display available users that are assigned to the function. The current selection defaults to the function to which you are assigning a user, however depending on the project configuration, you can assign any user.
	Clicking Clear Filters removes the current user assignment and displays [None] to indicate that no user is assigned.

Field	Description
	An assigned owner with All Reporting Rights can view, update, delete, or add additional owners to the chart. An assigned owner who has Refresh Workbook Data rights will only be able to view the chart. To make the chart available for all users or for configuration setup, you must have a Process Designer with All Reporting Rights as an assigned owner.

4. (All optional, available in configuration only) Enter the following information to make the chart publicly available.

Field	Description
Available to Charts & Reports	Select this check box to make the chart publicly available for users to access and view the chart.
	Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart in the Shared Charts & Reports section on the Charts & Reports page.
Available to Configuration	Select this check box to make the chart available for use in configuration.
Specific Roles	Select the system user roles that have access to view the chart.
	Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart on the Charts & Reports page.
Configuration Access Groups	When either Available to check box is checked, access groups must be defined for the chart.
	The access groups displayed are based on the current user's access group permissions and the access groups the chart belongs to. Additionally, Process Designers with matching permissions will be able to edit and view the chart.
Process Model	(Available for existing charts) Click on the Process Model
Usage	Usage button to see a list of process models that the online chart is associated with.
	The list displayed includes all process models the chart is included in, as well as links to the process model's component tree pages you have Edit access to.

Note: Clicking either Available to check box will place the chart in the Shared
Charts & Reports section of the Charts & Reports page. If neither check box

is selected, the chart will only be available to the assigned owners in their **My Charts & Reports** section.

- 5. In the **Report Source** field, select the report that contains the data to include in the chart. Only online reports created in Accolade are available for selection.
- 6. In the **Grouping** field, select the column from the report that represents the data and measurement values to plot on the chart.
 - (Optional) To use the column names as labels for each axis, select the **Display Axis Label** option for one or both axes.
 - (Optional) In the **Number Format** drop-down, select an option to indicate how values for the selected grouping display.
- 7. In the **Bar** field, select the column from the report that represents the data and measurement values to plot on the chart.
 - The chart draws negative and positive data points as greater than or less than a zero-value line. If charting only positive values, the chart draws bars as greater than zero.
 - If a column within the report contains a selected Aggregate value, the aggregation displays automatically when the report column is selected to display in a chart.
 - (Optional) To use the column names as labels for each axis, select the Display Axis Label
 option for one or both axes.
 - (Optional) To display grid lines for the vertical axis, select the Show Grid Lines option.
 - (Optional) To display values on the bars in the chart, select **Display totals**.
 - (Optional) In the **Number Format** drop-down, select an option to indicate how values for the bars display.
- 8. In the **Cycles** field, select one or many cycles. Each cycle displays a different grouping of data that the bars represent. The Grouping selection is automatically selected and cannot be unselected.
- 9. Enter the following information to alter the chart display:

Field	Description
Display Type	Select whether the bars display horizontally or vertically. The chart rotates according to the display type. Number formats specified in the report will also rotate since they apply to the data and not the axis. If the contents of your report produces enough bars that the labels along the horizontal axis overlap, select the Rotate Horizontal Axis Text option to display the labels at an angle instead of horizontally to prevent overlapping.
Color Theme	Select the color palette to assign to the bars.

Field	Description
	If plotting 10 or more data points, consider a color theme to accommodate each value measurement. Themes 2-5 allow for up to 20-25 plotted values.

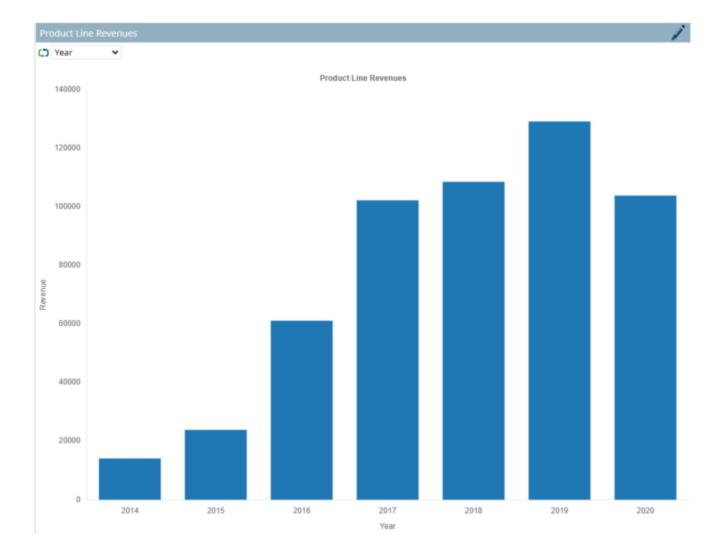
- 10. (Optional) Add target lines to display on the chart.
- 11. (Optional) If you edited an existing chart, click Q in the upper right corner to view the new chart.
- 12. Click Save to save your changes and create the chart.

Example - Creating Bar Charts in Accolade

For example, a user wants to review and compare the revenue by region for a portfolio of products over the last several years. The user has created a Product Line Revenues Report for their report source, and selected the **Product Lines**, **Revenue**, **Region**, and **Year** metrics to be included in the report.

To create a bar chart to display this information, the user has selected the **Year** for the **Grouping** value and the **Revenue** as the **Bar** value. The bars represent the yearly sales values of various products.

To create a bar chart to display this information and cycle through the metrics for different chart views, the user has selected the **Year** for the **Grouping**, the **Revenue** for the **Bar**, and the **Product Lines**, **Revenue**, and **Region** as the **Cycles** values. The Product Lines in the report represent the business units of Desktop, Tablets, Peripherals, Servers, and Mobile. The bars represent the yearly sales values of the various products. Select the cycle icon \circlearrowleft to view the different charts.



Notes:

- To delete a saved chart, display the chart from the Charts & Reports page, click / to display the chart settings, and click Delete at the bottom of the page. Only the chart owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the chart.
- If the **Replace Empty Value** system parameter is set to **0**, charts may render inconsistently due to empty or missing data returned by the report.
- Reporting Rights are not required to view the chart in a page layout; however a user must be an owner or have at least one matching user role for the chart to display in the layout.
- Before creating the chart, the user selects the sort order of the data in the associated report.
- Use the **Currency Symbol** system parameter to specify the currency symbol that displays in the **Number Format** field when creating charts and reports.

Creating Grouped Bar Charts Based on Report Data

Grouped bar charts use bars to represent and compare different categories of two or more sets of data in a format that display horizontally or vertically. Because the categories are grouped and arranged side by side, the grouped bar arrangement allows users to visually represent the differences inside a group. The grouped bar chart can be used to showcase differences in the same category across groups. Generally, in the chart, one axis has a value such as a product line, the other axis has numerical values such as revenue, and the bar segments show categories to be compared. In grouped bar charts, the user can cycle through different views, that is, different categories of data to get a more comprehensive view of a portfolio's performance using the cycle icon \Box .

Important! Select appropriate data types to render a meaningful chart. Numeric data types will chart bars successfully. The system will not prevent you from selecting different data types and will plot selected data as best as possible without error.

To create a grouped bar chart based on report data:

1. From the Workspace menu, select Charts & Reports.

To narrow the list, search by the chart name or category.

Note: Process Designers can also create or edit charts, reports, and related configuration by navigating to the **System** menu and selecting **Content Sources > Charts & Reports Manager**.

- 2. Do one of the following:
 - To add a new chart Click Add New, select Chart from the drop-down list, and click the Grouped Bar Chart icon.
 - To edit the details of an existing report Click the name of the chart on the Charts & Reports page and click / to edit the report details. Only users assigned as chart owners and Process Designers with All Reporting Rights can edit chart details.
- 3. Enter the following information to identify the chart:

Required fields display with **red** text and an asterisk * if the field is empty.

Field	Description
Name	Enter a name, up to 64 characters long, which identifies the chart. To display this name as the chart's title, select the Display as title option.
System Name	Enter a unique, shorter name that identifies the chart in queries, reporting views, field codes, and other places in Accolade.

Field	Description
	The name must be unique among charts and can contain only letters (English alphabet), numbers, and the underscore.
Category	Enter or select the group to which this chart belongs.
	Use categories to organize like charts together. For example, you may choose to group all the charts used in global layouts into the same category, in order to separate them from charts that are used in process model layouts or other reporting.
	Leave this field blank to add to the Default category.
	To define a new category, select New Category and enter the category name.
	To delete a category, remove every item from the category. Empty categories are deleted automatically.
Description	Enter a description of the purpose or nature of the chart.
	This description helps other users identify the chart on the Charts & Reports page.
Owners	Click 🔍 and select the additional users who can edit the chart
	details.
	To filter the list of users, enter one or more search criteria to filter by name, login name, email address, function, or extended field.
	Clicking Select current user will assign the role to the current user (if they have the appropriate rights).
	 Selecting a Function in the drop-down will display available users that are assigned to the function. The current selection defaults to the function to which you are assigning a user, however depending on the project configuration, you can assign any user. Clicking Clear Filters removes the current user assignment and displays [None] to indicate that no user is assigned.
	An assigned owner with All Reporting Rights can view, update, delete, or add additional owners to the chart. An assigned owner who has Refresh Workbook Data rights will only be able to view the chart. To make the chart available for all users or for configuration setup, you must have a Process Designer with All Reporting Rights as an assigned owner.

4. (All optional, available in configuration only) Enter the following information to make the chart publicly available.

Field	Description
Available to Charts & Reports	Select this check box to make the chart publicly available for users to access and view the chart.
	Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart in the Shared Charts & Reports section on the Charts & Reports page.
Available to Configuration	Select this check box to make the chart available for use in configuration.
Specific Roles	Select the system user roles that have access to view the chart.
	Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart on the Charts & Reports page.
Configuration Access Groups	When either Available to check box is checked, access groups must be defined for the chart.
	The access groups displayed are based on the current user's access group permissions and the access groups the chart belongs to. Additionally, Process Designers with matching permissions will be able to edit and view the chart.
Process Model	(Available for existing charts) Click on the Process Model
Usage	Usage button to see a list of process models that the online chart is associated with.
	The list displayed includes all process models the chart is included in, as well as links to the process model's component tree pages you have Edit access to.

Note: Clicking either Available to check box will place the chart in the Shared Charts & Reports section of the Charts & Reports page. If neither check box is selected, the chart will only be available to the assigned owners in their My Charts & Reports section.

- 5. In the **Report Source** field, select the report that contains the data to include in the chart. Only online reports created in Accolade are available for selection.
- 6. In the **Horizontal Axis** field, select the column from the report that represents the data and measurement values to plot on the chart.
 - The chart draws negative and positive data points as greater than or less than a zero-value line. If charting only positive values, the chart draws bars as greater than zero.
 - If a column within the report contains a selected **Aggregate** value, the aggregation displays automatically when the report column is selected to display in a chart.
 - (Optional) To use the column name as a label for the axis, select the Display axis label option.

- (Optional) In the **Number Format** drop-down, select an option to indicate how values for the selected column display.
- 7. *(Optional)* In the **Vertical Axis** field, select the column from the report that represents the data and measurement values to plot on the chart.
 - The chart draws negative and positive data points as greater than or less than a zero-value line. If charting only positive values, the chart draws bars as greater than zero.
 - If a column within the report contains a selected **Aggregate** value, the aggregation displays automatically when the report column is selected to display in a chart.
 - (Optional) To use the column name as a label for the axis, select the Display axis label option.
 - (Optional) In the **Number Format** drop-down, select an option to indicate how values for the selected column display.
 - The **Bars** field displays a drop-down list to select one column.
- 8. In the **Bars** field, the user can select one or more columns from the report that represent each bar within a group.
 - If the user selected a **Vertical Axis**, then the user must select one column only from the **Column** drop-down list. The chart renders by rows.
 - If the user did not select a Vertical Axis, then the user can select multiple columns from the box. The chart renders by columns.
- 9. Enter the following information to alter the chart display:

Field	Description
Bar Axis Units	Enter text to display as the vertical axis label.
Cycle Segments	Horizontal Axis and Bars determines how the cycles are mapped on the chart.
	Horizontal Axis uses the selected cycle as the basis for the horizontal axis. Bars maps the selected cycle to the vertical bars.
Cycles	Select one or many cycles.
	Each cycle displays a different column of data that the grouped bars represent. The Horizontal Axis selection is automatically selected and cannot be unselected.
Display Type	Select whether the bars display horizontally or vertically. The chart rotates according to the display type. Number formats specified in the report will also rotate since they apply to the data and not the axis.
	If the contents of your report produces enough bars that the horizontal axis labels overlap, select the Rotate Horizontal Axis Text option to display the

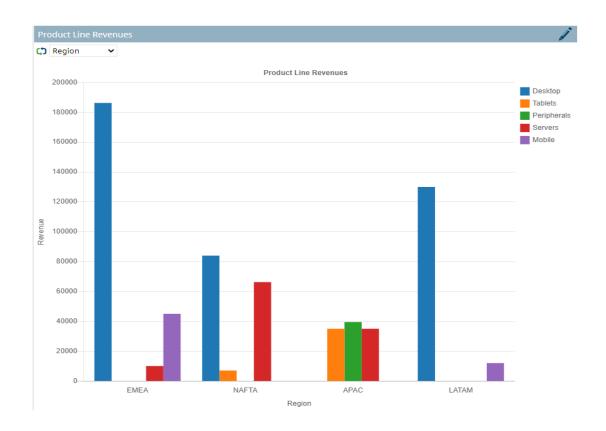
Field	Description
	labels at an angle instead of horizontally to prevent overlapping.
Number Format	Select a number formatting option to indicate how values within the chart are displayed.
Legend	Select where in the chart to display the key that identifies what the colors in the chart represent.
	After the chart renders, toggle a key label in the legend to hide and show data without changing the underlying chart and report configuration.
Color Theme	Select the color palette to assign to the bars.
	If plotting 10 or more data points, consider a color theme to accommodate each value measurement. Themes 2-5 allow for up to 20-25 plotted values.

- 10. (Optional) Add target lines to display on the chart.
- 11. (Optional) If you edited an existing chart, click Q in the upper right corner to view the new chart.
- 12. Click **Save** to save your changes and create the chart.

Example - Creating Grouped Bar Charts in Accolade

For example, a user wants to review and compare the revenue by region for a portfolio of products over the last several years. The user has created a Product Line Revenues Report for their report source, and selected the **Product Lines**, **Region**, **Year**, and **Revenue** metrics to be included in the report.

To create a grouped bar chart to display this information, the user has selected the **Region** for the **Horizontal Axis**, the **Revenue** for the **Vertical Axis**, the **Product Lines** as the **Bars** value, and **Product Lines**, **Revenue**, and **Year** as the **Cycles** values. The Product Lines in the report represent the business units of Desktop, Mobile, Peripherals, Servers, and Tablets. The bars represent the sales values of various products. Select the cycle icon \Box to view the different charts. Toggle a key label in the legend to hide and show data in the rendered chart.



Notes:

- To delete a saved chart, display the chart from the Charts & Reports page, click / to display the chart settings, and click Delete at the bottom of the page. Only the chart owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the chart.
- If the Replace Empty Value system parameter is set to 0, charts may render inconsistently due to empty or missing data returned by the report.
- Reporting Rights are not required to view the chart in a page layout; however a user must be an owner or have at least one matching user role for the chart to display in the layout.
- Before creating the chart, the user selects the sort order of the data in the associated report.
- Use the Currency Symbol system parameter to specify the currency symbol that displays in the Number Format field when creating charts and reports.

Creating Stacked Bar Charts Based on Report Data

Stacked bar charts use a single bar to represent multiple categories of data in a format that display horizontally or vertically. Because the categories are arranged in a stack, the stacked bar arrangement allows users to visually represent and compare total sizes of bars and relative differences in categories. The stacked bar chart can be used to showcase when one category overtakes another. Generally, in

the chart, one axis has a value such as a product line, the other axis has numerical values such as revenue, and the bar segments show categories to be compared. In stacked bar charts, the user can cycle through different views, that is, different categories of data to get a more comprehensive view of a portfolio's performance using the cycle icon \Box .

Important! Select appropriate data types to render a meaningful chart. Numeric data types will chart bars successfully. The system will not prevent you from selecting different data types and will plot selected data as best as possible without error.

To create a stacked bar chart based on report data:

1. From the Workspace menu, select Charts & Reports.

To narrow the list, search by the chart name or category.

Note: Process Designers can also create or edit charts, reports, and related configuration by navigating to the **System** menu and selecting **Content Sources > Charts & Reports Manager**.

- 2. Do one of the following:
 - To add a new chart Click Add New, select Chart from the drop-down list, and click the Stacked Bar Chart Licon.
 - To edit the details of an existing report Click the name of the chart on the Charts &
 Reports page and click / to edit the report details. Only users assigned as chart owners and Process Designers with All Reporting Rights can edit chart details.
- 3. Enter the following information to identify the chart:

Required fields display with red text and an asterisk * if the field is empty.

Field	Description
Name	Enter a name, up to 64 characters long, which identifies the chart.
	To display this name as the chart's title, select the Display as title option.
System Name	Enter a unique, shorter name that identifies the chart in queries, reporting views, field codes, and other places in Accolade.
	The name must be unique among charts and can contain only letters (English alphabet), numbers, and the underscore.
Category	Enter or select the group to which this chart belongs.
	Use categories to organize like charts together. For example, you may choose to group all the charts used in global layouts into the same category, in order to separate them from charts that are used in process model layouts or other reporting.

Field	Description
	Leave this field blank to add to the Default category.
	 To define a new category, select New Category and enter the category name.
	To delete a category, remove every item from the category. Empty categories are deleted automatically.
Description	Enter a description of the purpose or nature of the chart.
	This description helps other users identify the chart on the Charts & Reports page.
Owners	Click and select the additional users who can edit the chart
	details.
	To filter the list of users, enter one or more search criteria to filter by name, login name, email address, function, or extended field.
	Clicking Select current user will assign the role to the current user (if they have the appropriate rights).
	Selecting a Function in the drop-down will display available users that are assigned to the function. The current selection defaults to the function to which you are assigning a user, however depending on the project configuration, you can assign any user.
	Clicking Clear Filters removes the current user assignment and displays [None] to indicate that no user is assigned.
	An assigned owner with All Reporting Rights can view, update, delete, or add additional owners to the chart. An assigned owner who has Refresh Workbook Data rights will only be able to view the chart. To make the chart available for all users or for configuration setup, you must have a Process Designer with All Reporting Rights as an assigned owner.

4. (All optional, available in configuration only) Enter the following information to make the chart publicly available.

Field	Description
Available to Charts & Reports	Select this check box to make the chart publicly available for users to access and view the chart.

Field	Description
	Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart in the Shared Charts & Reports section on the Charts & Reports page.
Available to Configuration	Select this check box to make the chart available for use in configuration.
Specific Roles	Select the system user roles that have access to view the chart.
	Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart on the Charts & Reports page.
Configuration Access Groups	When either Available to check box is checked, access groups must be defined for the chart.
	The access groups displayed are based on the current user's access group permissions and the access groups the chart belongs to. Additionally, Process Designers with matching permissions will be able to edit and view the chart.
Process Model Usage	(Available for existing charts) Click on the Process Model Usage button to see a list of process models that the online chart is associated with.
	The list displayed includes all process models the chart is included in, as well as links to the process model's component tree pages you have Edit access to.

Note: Clicking either Available to check box will place the chart in the Shared Charts & Reports section of the Charts & Reports page. If neither check box is selected, the chart will only be available to the assigned owners in their My Charts & Reports section.

- 5. In the **Report Source** field, select the report that contains the data to include in the chart. Only online reports created in Accolade are available for selection.
- 6. In the **Horizontal Axis** field, select the column from the report that represents the data and measurement values to plot on the chart.
 - The chart draws negative and positive data points as greater than or less than a zero-value line. If charting only positive values, the chart draws bars as greater than zero.
 - If a column within the report contains a selected **Aggregate** value, the aggregation displays automatically when the report column is selected to display in a chart.
 - (Optional) To use the column name as a label for the axis, select the Display axis label option.
 - (Optional) In the **Number Format** drop-down, select an option to indicate how values for the selected column display.

- 7. (Optional) In the **Vertical Axis** field, select the column from the report that represents the data and measurement values to plot on the chart.
 - The chart draws negative and positive data points as greater than or less than a zero-value line. If charting only positive values, the chart draws bars as greater than zero.
 - If a column within the report contains a selected **Aggregate** value, the aggregation displays automatically when the report column is selected to display in a chart.
 - (Optional) To use the column name as a label for the axis, select the Display axis label option.
 - (Optional) In the **Number Format** drop-down, select an option to indicate how values for the selected column display.
 - The **Bar Segments** field displays a drop-down list to select one column.
- 8. In the **Bar Segments** field, the user can select one or more columns from the report that correlate to the stacked sections of the bars.
 - If the user selected a **Vertical Axis**, then the user must select one column only from the **Column** drop-down list. The chart renders by rows.
 - If the user did not select a **Vertical Axis**, then the user can select multiple columns from the box. The chart renders by columns.
 - Check one or both check boxes to display values.
 - Select Stacked to 100% to display the bar segments as percentages of the whole rather than integer values.
 - Select Display totals to include the total value for the entire bar after the last segment.
- 9. Enter the following information to alter the chart display:

Field	Description
Bar Axis Units	Enter text to display as the vertical axis label.
Cycle Segments	Horizontal Axis and Bars determines how the cycles are mapped on the chart.
	Horizontal Axis uses the selected cycle as the basis for the horizontal axis. Bars maps the selected cycle to the bar segments.
Cycles	Select one or many cycles. Each cycle displays a different segment of data that the stacked bars represent. The Horizontal Axis selection is automatically selected and cannot be unselected.
Display Type	Select whether the bars display horizontally or vertically. The chart rotates according to the display type. Number formats specified in the report will also rotate since they apply to the data and not the axis. If the contents of your report produce enough bars that

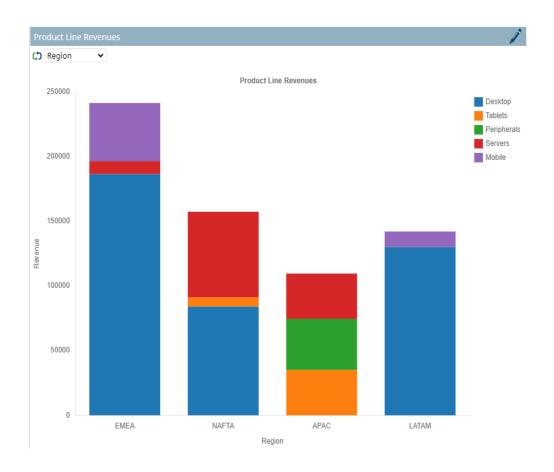
Field	Description
	the horizontal axis labels overlap, select the Rotate Horizontal Text option to display the labels at an angle instead of horizontally to prevent overlapping.
Number Format	Select a number formatting option to indicate how values within the chart are displayed.
Legend	Select where in the chart to display the key that identifies what the colors in the chart represent.
	After the chart renders, toggle a key label in the legend to hide and show data without changing the underlying chart and report configuration.
Color Theme	Select the color palette to assign to the bars.
	If plotting 10 or more data points, consider a color theme to accommodate each value measurement. Themes 2-5 allow for up to 20-25 plotted values.

- 10. (Optional) Add target lines to display on the chart.
- 11. (Optional) If you edited an existing chart, click Q in the upper right corner to view the new chart.
- 12. Click Save to save your changes and create the chart.

Example - Creating Stacked Bar Charts in Accolade

For example, a user wants to review and compare the revenue by region for a portfolio of products over the last several years. The user has created a Product Line Revenues Report for their report source, and selected the **Product Lines**, **Region**, **Year**, and **Revenue** metrics to be included in the report.

To create a stacked bar chart to display this information and cycle through the metrics for different chart views, the user has selected the **Region** for the **Horizontal Axis**, the **Revenue** for the **Vertical Axis**, the **Product Lines** as the **Bar Segments** value, and **Product Lines**, **Revenue**, and **Year** as the **Cycles** values. The Product Lines in the report represent the business units of Desktop, Tablets, Peripherals, Servers, and Mobile. The bar segments represent the various products by category across region and revenue over several years. Select the cycle icon to view the different charts. Toggle a key label in the legend to hide and show data in the rendered chart.



Notes:

- To delete a saved chart, display the chart from the Charts & Reports page, click
 to display the chart settings, and click Delete at the bottom of the page. Only the chart owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the chart.
- If the **Replace Empty Value** system parameter is set to **0**, charts may render inconsistently due to empty or missing data returned by the report.
- Reporting Rights are not required to view the chart in a page layout; however a user must be an owner or have at least one matching user role for the chart to display in the layout.
- Before creating the chart, the user selects the sort order of the data in the associated report.
- Use the **Currency Symbol** system parameter to specify the currency symbol that displays in the **Number Format** field when creating charts and reports.

Creating Bubble Charts Based on Report Data

Bubble charts (also known as bubble plots) are multi-dimensional graphs that are a cross between a scatter plot and a proportional area chart, and can be useful for comparing the relationships between projects in multiple dimensions. Data points are plotted against a horizontal and vertical axis, and then have additional data values represented by the size and color of the bubble. In bubble charts, the user can cycle through different views, that is, different categories of data to get a more comprehensive view of a portfolio's performance using the cycle icon .

Important! Select numeric data types for **Bubble Represents** values to render a meaningful chart. The system will not prevent you from selecting different data types and will plot selected data as best as possible without error.

To create a bubble chart based on report data:

1. From the Workspace menu, select Charts & Reports.

To narrow the list, search by the chart name or category.

Note: Process Designers can also create or edit charts, reports, and related configuration by navigating to the **System** menu and selecting **Content Sources > Charts & Reports Manager**.

- 2. Do one of the following:
 - To add a new chart Click Add New, select Chart from the drop-down list, and click the Bubble Chart icon.
 - To edit the details of an existing report Click the name of the chart on the Charts & Reports page and click / to edit the report details. Only users assigned as chart owners and Process Designers with All Reporting Rights can edit chart details.
- 3. Enter the following information to identify the chart:

Required fields display with **red** text and an asterisk * if the field is empty.

Field	Description
Name	Enter a name, up to 64 characters long, which identifies the chart. To display this name as the chart's title, select the Display as title option.
System Name	Enter a unique, shorter name that identifies the chart in queries, reporting views, field codes, and other places in Accolade. The name must be unique among charts and can contain only letters (English alphabet), numbers, and the underscore.
Category	Enter or select the group to which this chart belongs.

Field	Description
	Use categories to organize like charts together. For example, you may choose to group all the charts used in global layouts into the same category, in order to separate them from charts that are used in process model layouts or other reporting.
	Leave this field blank to add to the Default category.
	 To define a new category, select New Category and enter the category name.
	To delete a category, remove every item from the category. Empty categories are deleted automatically.
Description	Enter a description of the purpose or nature of the chart.
	This description helps other users identify the chart on the Charts & Reports page.
Owners	Click and select the additional users who can edit the chart details.
	To filter the list of users, enter one or more search criteria to filter by name, login name, email address, function, or extended field.
	Clicking Select current user will assign the role to the current user (if they have the appropriate rights).
	Selecting a Function in the drop-down will display available users that are assigned to the function. The current selection defaults to the function to which you are assigning a user, however depending on the project configuration, you can assign any user.
	Clicking Clear Filters removes the current user assignment and displays [None] to indicate that no user is assigned.
	An assigned owner with All Reporting Rights can view, update, delete, or add additional owners to the chart. An assigned owner who has Refresh Workbook Data rights will only be able to view the chart. To make the chart available for all users or for configuration setup, you must have a Process Designer with All Reporting Rights as an assigned owner.

4. (All optional, available in configuration only) Enter the following information to make the chart publicly available.

Field	Description
Available to Charts & Reports	Select this check box to make the chart publicly available for users to access and view the chart.
	Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart in the Shared Charts & Reports section on the Charts & Reports page.
Available to Configuration	Select this check box to make the chart available for use in configuration.
Specific Roles	Select the system user roles that have access to view the chart.
	Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart on the Charts & Reports page.
Configuration Access Groups	When either Available to check box is checked, access groups must be defined for the chart.
	The access groups displayed are based on the current user's access group permissions and the access groups the chart belongs to. Additionally, Process Designers with matching permissions will be able to edit and view the chart.
Process Model	(Available for existing charts) Click on the Process Model
Usage	Usage button to see a list of process models that the online chart is associated with.
	The list displayed includes all process models the chart is included in, as well as links to the process model's component tree pages you have Edit access to.

Note: Clicking either Available to check box will place the chart in the Shared
Charts & Reports section of the Charts & Reports page. If neither check box
is selected, the chart will only be available to the assigned owners in their My
Charts & Reports section.

- 5. In the **Report Source** field, select the report that contains the data to include in the chart. Only online reports created in Accolade are available for selection.
- 6. In the **Horizontal Axis** and **Vertical Axis** fields, select the columns from the report that represent the data and measurement values to plot on the chart.
 - (Optional) To use the column names as labels for each axis, select the **Display Axis Label** option for one or both axes.
 - (Optional) To display grid lines for the horizontal and vertical axis, select the Show Grid Lines option.
 - (Optional) Select the **Rotate Horizontal Axis Text** option to display the labels at an angle instead of horizontally to prevent overlapping.

- (Optional) In the **Number Format** drop-down, select an option to indicate how values on the axis are displayed.
- (Optional) In **Scale Control**, change the scaling and size of the displayed chart by selecting one of the following options:
 - Select **Automatic** to set the chart range minimum and maximum values displayed in the chart based on the data ranges in the report.
 - Select Custom to manually set the chart Range Minimum and Range Maximum values displayed in the chart.
- 7. Select the following information to define what the bubbles within the chart represent:

Field	Description
Bubble Size	Select a number metric from the report that determines the size of each bubble in the chart.
Number Format	Select how values display within the tooltip for the bubbles in the chart.
Bubble Represents	Select the information that displays within the tooltip for the bubbles in the chart.
	Selecting [None] displays only the bubble's value in the tooltip.
Bubble Color	Select the column that determines what each color represents in the chart.
Bubble Opacity	Select how solid to display the bubbles in the chart.
	Using a smaller value displays the bubbles less opaque, and can make each easier to see if bubbles overlap in the chart.
Cycles	Select one or many cycles. Each cycle displays a different grouping of data that the bubbles represent.
	The Bubble Color selection is automatically selected and cannot be unselected.
Color Theme	Select the color palette to assign to the bubbles in the chart.
Legend	Select where in the chart to display the key that identifies what the bubble colors in the chart represent.
	After the chart renders, toggle a key label in the legend to hide and show data without changing the underlying chart and report configuration.

- 8. (Optional) If you edited an existing chart, click (in the upper right corner to view the new chart.
- 9. Click Save to save your changes and create the chart.

Example - Creating Bubble Charts in Accolade

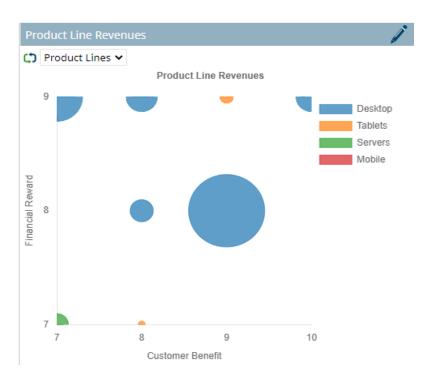
For example, a user wants to review and compare the financial reward and customer benefit by region for a portfolio of products over the last several years. The user has created a Product Line Revenues

Report for their report source, and selected the **Product Lines**, **Region**, **Revenue**, **Year**, **Financial Reward**, and **Customer Benefit** metrics to be included in the report.

To create a bubble chart to display this information and cycle through the metrics for different chart views, the user has selected:

- · Horizontal Axis Customer Benefit
- · Vertical Axis Financial Reward
- Bubble Size Revenue
- Bubble Represents Region
- Bubble Color Product Lines
- · Cycles Year and Region

The Product Lines in the report represent the business units of Desktop, Tablets, Peripherals, Servers, and Mobile. The bubbles represent the various products by category across region and revenue over several years. The bubble location on the chart shows the high customer benefit and financial reward in the upper right corner and low values in the lower left corner to help you identify possible investments. Select the cycle icon \Box to view the different charts. Toggle a key label in the legend to hide and show data in the rendered chart.



Notes:

To delete a saved chart, display the chart from the Charts & Reports page, click / to

display the chart settings, and click **Delete** at the bottom of the page. Only the chart owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the chart.

- If the Replace Empty Value system parameter is set to 0, charts may render inconsistently due to empty or missing data returned by the report.
- Reporting Rights are not required to view the chart in a page layout; however a user must be an owner or have at least one matching user role for the chart to display in the layout.
- Use the Currency Symbol system parameter to specify the currency symbol that displays in the Number Format field when creating charts and reports.

Creating Line Chart Trends Charts Based on Report Data

Line Chart Trends charts are created by connecting a series of data points together with a solid line, and layering multiple lines within one chart to display or analyze trends or patterns in several related sets of data. In line chart trends, the user can cycle through different views, that is, different categories of data to get a more comprehensive view of a portfolio's performance using the cycle icon .

Important! Select appropriate data types to render a meaningful chart. Numeric data types will chart lines successfully. The system will not prevent you from selecting different data types and will plot selected data as best as possible without error.

To create a line chart trends chart based on report data:

1. From the Workspace menu, select Charts & Reports.

To narrow the list, search by the chart name or category.

Note: Process Designers can also create or edit charts, reports, and related configuration by navigating to the **System** menu and selecting **Content Sources > Charts & Reports Manager**.

- 2. Do one of the following:
 - To add a new chart Click Add New, select Chart from the drop-down list, and click the Line Chart Trends icon.
 - To edit the details of an existing report Click the name of the chart on the Charts &
 Reports page and click / to edit the report details. Only users assigned as chart owners and Process Designers with All Reporting Rights can edit chart details.
- 3. Enter the following information to identify the chart:

Required fields display with **red** text and an asterisk * if the field is empty.

Field	Description
Name	Enter a name, up to 64 characters long, which identifies the chart.
	To display this name as the chart's title, select the Display as title option.
System Name	Enter a unique, shorter name that identifies the chart in queries, reporting views, field codes, and other places in Accolade.
	The name must be unique among charts and can contain only letters (English alphabet), numbers, and the underscore.
Category	Enter or select the group to which this chart belongs.
	Use categories to organize like charts together. For example, you may choose to group all the charts used in global layouts into the same category, in order to separate them from charts that are used in process model layouts or other reporting.
	Leave this field blank to add to the Default category.
	To define a new category, select New Category and enter the category name.
	To delete a category, remove every item from the category. Empty categories are deleted automatically.
Description	Enter a description of the purpose or nature of the chart.
	This description helps other users identify the chart on the Charts & Reports page.
Owners	Click and select the additional users who can edit the chart details.
	To filter the list of users, enter one or more search criteria to filter by name, login name, email address, function, or extended field.
	Clicking Select current user will assign the role to the current user (if they have the appropriate rights).
	Selecting a Function in the drop-down will display available users that are assigned to the function. The current selection defaults to the function to which you are assigning a user, however depending on the project configuration, you can assign any user.
	Clicking Clear Filters removes the current user assignment and displays [None] to indicate that no user is assigned.
	An assigned owner with All Reporting Rights can view, update, delete, or add additional owners to the chart. An assigned owner who has Refresh Workbook Data

Field	Description
	rights will only be able to view the chart. To make the chart available for all users or for configuration setup, you must have a Process Designer with All Reporting Rights as an assigned owner.

4. (All optional, available in configuration only) Enter the following information to make the chart publicly available.

Field	Description
Available to Charts & Reports	Select this check box to make the chart publicly available for users to access and view the chart.
	Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart in the Shared Charts & Reports section on the Charts & Reports page.
Available to Configuration	Select this check box to make the chart available for use in configuration.
Specific Roles	Select the system user roles that have access to view the chart.
	Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart on the Charts & Reports page.
Configuration Access Groups	When either Available to check box is checked, access groups must be defined for the chart.
	The access groups displayed are based on the current user's access group permissions and the access groups the chart belongs to. Additionally, Process Designers with matching permissions will be able to edit and view the chart.
Process Model	(Available for existing charts) Click on the Process Model Usage button to see a list of process models that the online
Usage	chart is associated with.
	The list displayed includes all process models the chart is included in, as well as links to the process model's component tree pages you have Edit access to.

Note: Clicking either Available to check box will place the chart in the Shared Charts & Reports section of the Charts & Reports page. If neither check box is selected, the chart will only be available to the assigned owners in their My Charts & Reports section.

5. In the **Report Source** field, select the report that contains the data to include in the chart. Only online reports created in Accolade are available for selection.

- 6. In the Horizontal Axis section, make the following selections:
 - (Optional) Enter a description in the Label field to display a label for the horizontal axis.
 - (Optional) Select the **Rotate Horizontal Axis Text** option to display the labels at an angle instead of horizontally to prevent overlapping.
 - (Optional) Select the Show Grid Lines option to display grid lines for one or both axes.
 - (Optional) Select the Start at Zero option to display the data range along the horizontal axis in relation to 0.



When the **Start at Zero** check box is not selected, the data range for the horizontal axis will be determined by the lowest and highest available data values.

For example, you have data points that are all between the values of 6 and 10 that are being graphed along the horizontal axis. Selecting the **Start at Zero** option will display a graph that displays the value range of 0 to 10 along the horizontal axis to show the relation of the data to the origin. If **Start at Zero** is not selected, the graph will display the value range of 6 to 10 along the horizontal axis.

- (Optional) In the **Number Format** drop-down, select an option to indicate how values on the axis are displayed.
- In the **Column** drop-down list, select the column from the report that represents the data and measurement values to plot on the horizontal axis of the chart.
 - If a column within the report contains a selected Aggregate value, the aggregation displays automatically when the report column is selected to display in a chart.
- 7. In the **Vertical Axis** section, make the following selections:
 - (Optional) Enter a description in the **Label** field to display a label for the vertical axis.
 - (Optional) Select the **Show Grid Lines** option to display grid lines for one or both axes.
 - (Optional) In the **Number Format** drop-down, select an option to indicate how values on the axis are displayed.
 - Select the **Lines** columns from the report that represent the data and measurement values to plot on the vertical axis of the chart.
 - If a column within the report contains a selected Aggregate value, the aggregation displays
 automatically when the report column is selected to display in a chart.
- 8. *(Optional)* In the **Group By** field, select columns from the report to apply line groupings to the data presented in the graph.



Adding additional **Group By** selections introduces more lines to your display which may impact chart use.

- 9. (Optional) Select the **Display Point Marker** check box to display the grid points.
- In the Cycles field, select one or many cycles. Each cycle displays a different grouping of data that the lines represent. The Horizontal Axis selection is automatically selected and cannot be

unselected.

11. Enter the following information to alter the chart display:

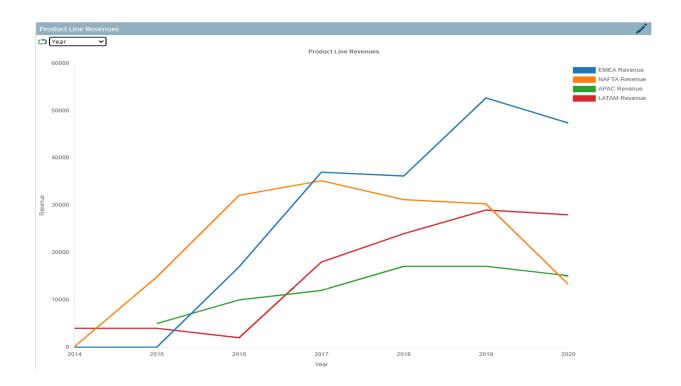
Field	Description
Style	Select whether to display lines only, or lines with fill below.
Legend	Select where in the chart to display the key that identifies what the colors in the chart represent.
	After the chart renders, toggle a key label in the legend to hide and show data without changing the underlying chart and report configuration.
Color Theme	Select the color palette to assign to the bars.
	If plotting 10 or more data points, consider a color theme to accommodate each value measurement. Themes 2-5 allow for up to 20 plotted values.

- 12. (Optional) If you edited an existing chart, click (in the upper right corner to view the new chart.
- 13. Click **Save** to save your changes and create the chart.

Example - Creating Line Chart Trends Charts in Accolade

For example, a user wants to review and compare the revenue by region for a portfolio of products over the last several years. The user has created a Product Line Revenues Report for their report source, and selected the **Product Lines**, **Region**, **Year**, and **Revenue** metrics to be included in the report.

To create a line trends chart to display this information and cycle through the metrics for different chart views, the user has selected the **Year** for the **Horizontal Axis Label**, the **Product Lines** as the **Column** value, the **Revenue** for the **Vertical Axis Label**, the **Revenue** for the **Lines**, the **Region** for the **Group By** value, and **Revenue**, **Region**, and **Year** as the **Cycles** values. The Product Lines in the report represent the business units of Desktop, Tablets, Peripherals, Servers, and Mobile. The line segments represent the various products by category across region and revenue over several years. Select the cycle icon to view the different charts. Toggle a key label in the legend to hide and show data in the rendered chart.



Notes:

- To delete a saved chart, display the chart from the Charts & Reports page, click / to display the chart settings, and click Delete at the bottom of the page. Only the chart owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the chart.
- If the Replace Empty Value system parameter is set to 0, charts may render inconsistently due to empty or missing data returned by the report.
- Reporting Rights are not required to view the chart in a page layout; however a user must be an owner or have at least one matching user role for the chart to display in the layout.
- Use the **Currency Symbol** system parameter to specify the currency symbol that displays in the **Number Format** field when creating charts and reports.

Creating Pie Charts Based on Report Data

Pie charts present categories of data as slices of a pie, where each category is represented as a percentage of the whole value of the chart. In pie charts, the user can cycle through different views, that is, different categories of data to get a more comprehensive view of a portfolio's performance using the cycle icon .

Important! Select numeric data types for the **Slice Represents** values to render a meaningful chart. The system will not prevent you from selecting different data types and will plot selected data as best as possible without error.

To create a pie chart based on report data:

1. From the Workspace menu, select Charts & Reports.

To narrow the list, search by the chart name or category.

Note: Process Designers can also create or edit charts, reports, and related configuration by navigating to the **System** menu and selecting **Content Sources > Charts & Reports Manager**.

- 2. Do one of the following:
 - To add a new chart Click Add New, select Chart from the drop-down list, and click the Pie Chart toon.
 - To edit the details of an existing report Click the name of the chart on the Charts & Reports page and click / to edit the report details. Only users assigned as chart owners and Process Designers with All Reporting Rights can edit chart details.
- 3. Enter the following information to identify the chart:

Required fields display with **red** text and an asterisk * if the field is empty.

Field	Description	
Name	Enter a name, up to 64 characters long, which identifies the chart.	
	To display this name as the chart's title, select the Display as title option.	
System Name	Enter a unique, shorter name that identifies the chart in queries, reporting views, field codes, and other places in Accolade.	
	The name must be unique among charts and can contain only letters (English alphabet), numbers, and the underscore.	
Category	Enter or select the group to which this chart belongs.	
	Use categories to organize like charts together. For example, you may choose to group all the charts used in global layouts into the same category, in order to separate them from charts that are used in process model layouts or other reporting.	
	Leave this field blank to add to the Default category.	
	To define a new category, select New Category and enter the category name.	
	To delete a category, remove every item from the category.	

Field	Description	
	Empty categories are deleted automatically.	
Description	Enter a description of the purpose or nature of the chart.	
	This description helps other users identify the chart on the Charts & Reports page.	
Owners	Click and select the additional users who can edit the chart	
	details.	
	To filter the list of users, enter one or more search criteria to filter by name, login name, email address, function, or extended field.	
	Clicking Select current user will assign the role to the current user (if they have the appropriate rights).	
	Selecting a Function in the drop-down will display available users that are assigned to the function. The current selection defaults to the function to which you are assigning a user, however depending on the project configuration, you can assign any user.	
	Clicking Clear Filters removes the current user assignment and displays [None] to indicate that no user is assigned.	
	An assigned owner with All Reporting Rights can view, update, delete, or add additional owners to the chart. An assigned owner who has Refresh Workbook Data rights will only be able to view the chart. To make the chart available for all users or for configuration setup, you must have a Process Designer with All Reporting Rights as an assigned owner.	

4. (All optional, available in configuration only) Enter the following information to make the chart publicly available.

Field	Description	
Available to Charts & Reports	Select this check box to make the chart publicly available for users to access and view the chart.	
	Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart in the Shared Charts & Reports section on the Charts & Reports page.	
Available to Configuration	Select this check box to make the chart available for use in configuration.	

Field	Description	
Specific Roles	Select the system user roles that have access to view the chart.	
	Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart on the Charts & Reports page.	
Configuration Access Groups	When either Available to check box is checked, access groups must be defined for the chart.	
	The access groups displayed are based on the current user's access group permissions and the access groups the chart belongs to. Additionally, Process Designers with matching permissions will be able to edit and view the chart.	
Process Model Usage	(Available for existing charts) Click on the Process Model Usage button to see a list of process models that the online chart is associated with.	
	The list displayed includes all process models the chart is included in, as well as links to the process model's component tree pages you have Edit access to.	

Note: Clicking either Available to check box will place the chart in the Shared
Charts & Reports section of the Charts & Reports page. If neither check box is selected, the chart will only be available to the assigned owners in their My
Charts & Reports section.

- 5. In the **Report Source** field, select the report that contains the data to include in the chart. Only online reports created in Accolade are available for selection.
- 6. Select the following information to define the slices within the pie chart and how they display:

Field	Description	
Slice Represents	Select the data column that contains the row items that the slices in the pie represent.	
Slice Size	Select the numeric data column that determines the size of the slices in the pie.	
Cycles	Select one or many cycles. Each cycle is a data column that contains the row items that the slices in the pie represent. The Slice Represents selection is automatically selected and cannot be unselected.	
Slice Name	Select to include the name of the pie slice as part of the slice's label.	
Slice Value or Slice Percentage	Select whether to label the pie slices by value or percentage of the pie included in the slice.	
	You can select one or both, or select neither to display the slices with no values.	

7. Select the following attributes to define the pie chart's style:

Field	Description	
Doughnut	Displays the pie with an empty space in the middle.	
Exploded	Displays the pie with space between each piece.	
Number Format	Select a number formatting option to indicate how the values in the chart are displayed.	
Color Theme	Select the color palette to assign to the pie sections of the chart. If plotting 10 or more data points, consider a color theme to accommodate each value measurement. Themes 2-5 allow for up to 20-25 plotted values.	
Legend	Select where in the chart to display the key that identifies what the colors in the chart represent. After the chart renders, toggle a key label in the legend to hide and show data without changing the underlying chart and report configuration.	

- 8. (Optional) If you edited an existing chart, click (in the upper right corner to view the new chart.
- 9. Click **Save** to save your changes and create the chart.

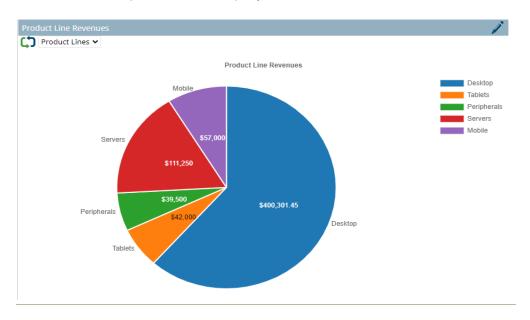
Example - Creating Pie Charts in Accolade

For example, a user wants to review and compare the revenue by region for a portfolio of products over the last several years. The user has created a Product Line Revenues Report for their report source, and selected the **Product Lines**, **Region**, **Year**, and **Revenue** metrics to be included in the report.

For example, a user wants to review and compare last year's sales revenue numbers for several projects. The user has created a Sales Performance report for their chart report source, and selected the **Project Name** and **Sales Year 1** metrics to be included in the report.

To create a pie bar chart to display this information and cycle through the metrics for different chart views, the user has selected the **Product Lines** for the **Slice Represents**, the **Revenue** for the **Slice Size**, and the **Region**, **Year**, and **Revenue** as the **Cycles** values. The Product Lines in the report represent the business units of Desktop, Tablets, Peripherals, Servers, and Mobile. The slices represent the various products by category across region and revenue over several years. Select the cycle icon to view the different charts. Toggle a key label in the legend to hide and show data in the rendered chart.

To create a pie chart to display this information, the user has selected **Project Name** as the **Slice Represents** value, and **Sales Year 1** as the **Slice Size** value, to create slices that represent each project's sales revenue as a portion of the company's overall sales total.



Notes:

- Percentages in pie charts truncate after the first decimal place therefore the total may not always equal 100%. For example, 27.786% will display as 27.7%.
- Negative values are not included in the pie chart.
- To delete a saved chart, display the chart from the Charts & Reports page, click / to display the chart settings, and click Delete at the bottom of the page. Only the chart owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the chart.
- If the Replace Empty Value system parameter is set to 0, charts may render inconsistently due to empty or missing data returned by the report.

- Reporting Rights are not required to view the chart in a page layout; however a user must be an owner or have at least one matching user role for the chart to display in the layout.
- Before creating the chart, the user selects the sort order of the data in the associated report.

Creating Radar Charts Based on Report Data

Radar charts are multi-dimensional graphs that display data values based on a shared center axis, and can be useful for comparing properties of a single component, or for performance analysis and determining when one variable is performing differently than the rest.

Important! Select spokes with numeric data types to render a meaningful chart. The system will not prevent you from selecting different data types and will plot selected data as best as possible without error.

To create a radar chart based on report data:

1. From the Workspace menu, select Charts & Reports.

To narrow the list, search by the chart name or category.

Note: Process Designers can also create or edit charts, reports, and related configuration by navigating to the **System** menu and selecting **Content Sources > Charts & Reports Manager**.

- 2. Do one of the following:
 - To add a new chart Click Add New, select Chart from the drop-down list, and click the Radar Chart icon.
 - To edit the details of an existing report Click the name of the chart on the Charts & Reports page and click / to edit the report details. Only users assigned as chart owners and Process Designers with All Reporting Rights can edit chart details.
- 3. Enter the following information to identify the chart:

Required fields display with **red** text and an asterisk * if the field is empty.

Field	Description	
Name	Enter a name, up to 64 characters long, which identifies the chart. To display this name as the chart's title, select the Display as title option.	

Field	Description		
System Name	Enter a unique, shorter name that identifies the chart in queries, reporting views, field codes, and other places in Accolade.		
	The name must be unique among charts and can contain only letters (English alphabet), numbers, and the underscore.		
Category	Enter or select the group to which this chart belongs.		
	Use categories to organize like charts together. For example, you may choose to group all the charts used in global layouts into the same category, in order to separate them from charts that are used in process model layouts or other reporting.		
	Leave this field blank to add to the Default category.		
	To define a new category, select New Category and enter the category name.		
	To delete a category, remove every item from the category. Empty categories are deleted automatically.		
Description	Enter a description of the purpose or nature of the chart.		
	This description helps other users identify the chart on the		
_	Charts & Reports page.		
Owners	Click and select the additional users who can edit the chart		
	details.		
	To filter the list of users, enter one or more search criteria to filter by name, login name, email address, function, or extended field.		
	Clicking Select current user will assign the role to the current user (if they have the appropriate rights).		
	 Selecting a Function in the drop-down will display available users that are assigned to the function. The current selection defaults to the function to which you are assigning a user, however depending on the project configuration, you can assign any user. Clicking Clear Filters removes the current user assignment and displays [None] to indicate that no user is assigned. 		
	An assigned owner with All Reporting Rights can view, update, delete, or add additional owners to the chart. An assigned owner who has Refresh Workbook Data rights will only be able to view the chart. To make the chart available for all users or for configuration setup, you must have a Process Designer with All Reporting Rights as an assigned owner.		

4. (All optional, available in configuration only) Enter the following information to make the chart publicly available.

Field	Description	
Available to Charts & Reports	Select this check box to make the chart publicly available for users to access and view the chart.	
	Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart in the Shared Charts & Reports section on the Charts & Reports page.	
Available to Configuration	Select this check box to make the chart available for use in configuration.	
Specific Roles	Select the system user roles that have access to view the chart.	
	Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart on the Charts & Reports page.	
Configuration Access Groups	When either Available to check box is checked, access groups must be defined for the chart.	
	The access groups displayed are based on the current user's access group permissions and the access groups the chart belongs to. Additionally, Process Designers with matching permissions will be able to edit and view the chart.	
Process Model Usage	(Available for existing charts) Click on the Process Model Usage button to see a list of process models that the online chart is associated with.	
	The list displayed includes all process models the chart is included in, as well as links to the process model's component tree pages you have Edit access to.	

Note: Clicking either Available to check box will place the chart in the Shared
Charts & Reports section of the Charts & Reports page. If neither check box
is selected, the chart will only be available to the assigned owners in their My
Charts & Reports section.

- 5. In the **Report Source** field, select the report that contains the data to include in the chart. Only online reports created in Accolade are available for selection.
- 6. In the **Polygons** field, select the column from the report that represents the data and measurement values to plot on the chart.
 - If a column within the report contains a selected **Aggregate** value, the aggregation displays automatically when the report column is selected to display in a chart.

- 7. In the **Spokes** field, select the columns from the report that represent the data and measurement values to plot as groupings or areas of the values.
- 8. Enter the following information to alter the chart display:

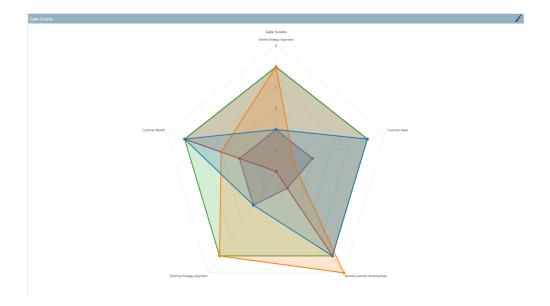
Field	Description		
Scale Control	Select the scaling and size of the displayed chart.		
	Select Automatic to set the chart range minimum and maximum values displayed in the chart based on the data ranges in the report.		
	Select Custom to manually set the chart Range Minimum and Range Maximum values displayed in the chart.		
Number Format	Select a number formatting option to indicate how the values in the chart are displayed.		
Style	Select how the polygon shapes charting the data display.		
	If you select Lines and Fill or Fill Only , select how solid to display the shapes in the chart in the Polygon Opacity field. Using a smaller value displays the polygons less opaque, and can make each easier to see if polygons overlap in the chart.		
Legend	Select where in the chart to display the key that identifies what the colors in the chart represent.		
	After the chart renders, toggle a key label in the legend to hide and show data without changing the underlying chart and report configuration.		
Color Theme	Select the color palette to assign to the regions.		

- 9. (Optional) If you edited an existing chart, click (in the upper right corner to view the new chart.
- 10. Click Save to save your changes and create the chart.

Example - Creating Radar Charts in Accolade

For example, a user wants to review their portfolio of projects, and identify which ones continue to best fit their company's overall strategy based on a set of current gate scores. The user has created a Business Opportunity Report for their chart report source, and selected the **Project Name**, **Market Strategy Alignment**, **Customer Need**, **Market/Customer Attractiveness**, **Technical Strategy Alignment**, and **Customer Benefit** metrics to be included in the report.

To create a radar chart to display this information, the user has selected **Project Name** as the **Polygons** value, and the **Market Strategy Alignment**, **Customer Need**, **Market/Customer Attractiveness**, **Technical Strategy Alignment**, and **Customer Benefit** metrics as the **Spokes** values to create shapes that compare the gate scores for various projects. Toggle a key label in the legend to hide and show data in the rendered chart.



Notes:

- To delete a saved chart, display the chart from the Charts & Reports page, click
 to display the chart settings, and click Delete at the bottom of the page. Only the chart owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the chart.
- If the **Replace Empty Value** system parameter is set to **0**, charts may render inconsistently due to empty or missing data returned by the report.
- Reporting Rights are not required to view the chart in a page layout; however a user must be an owner or have at least one matching user role for the chart to display in the layout.

Adding Target Lines to Bar Charts

In order to characterize Accolade data more completely, it can be helpful to include a threshold line or target value indicators to your chart. Bar charts include an option to display and hide target data for a project or portfolio. Users can add target lines to grouped, stacked, and vertical bar charts to visually represent a benchmark line and add context for the viewer. Adding interpretation to the data visualization helps the viewer understand the information being presented in the chart.

To add target lines to a bar, grouped bar, or stacked bar chart:

- 1. From the **Project > Charts & Reports** page, click the name of the chart and click / to edit the chart details.
- 2. In the Target Line Report Source field, select the online report to be referenced.

- ~
- The **Target Line Report Source** does not have to be the same report as used for the chart's **Report Source**. If the **Report Source** and the **Target Line Report Source** are different reports, the values in the **Target Line Report Key** column should match the values in the **Grouping** column.
- 3. In the **Target Line Report Key** and **Target Line Report Value** fields, select the report columns from the selected source above that will be referenced to create target lines.

The Target Line Report Value controls what values the targets lines display in the chart.

- If the Target Line Report Source column selected contains rows with unique values, the Target Line Report Value will display the relative metric value as the target line.
- If the Target Line Report Source column selected contains rows with duplicate values, the
 target line will display as the aggregated totals of the Target Line Report Value metric values
 from each row of data.
- When Cycle Segments is set to Horizontal Axis, the target lines will only be applied to the
 original value, as defined for the horizontal axis.

Examples 1 & 2 discuss how to create a chart with target lines using one or multiple chart sources, and the Target Line Report Source column contains unique values per project. Example 3 discusses how to create a chart with target lines using aggregated metric totals.

Example 1 - Bar Charts Using One Report Source

For example, a user has several different projects that are all reporting yearly sales numbers, and wants to review how each project performed against their individual sales target. For the report, the user has created a Project Sales Report that includes the **Project Name**, and selected the **Total Sales** and **Sales Forecast** metrics to be included in the report.

Using the Project Sales Report as the source for both the chart and the target lines, make the following selections for a bar chart:

- For the chart setup, select **Project Name** as the **Grouping** value and **Total Sales** as the **Bar** value, to create bars that represent the total sales for each project.
- For the targets setup, select Project Name as the Target Line Report Key value and Sales
 Forecast as the Target Line Report Value, to create target lines that represent the sales
 targets for each project.

The user could include additional sales data metrics in the chart and report in order to create grouped bar and stacked bar charts to represent additional comparison views.

Example 2 - Bar Charts Using Different Report Sources

Using the same scenario from Example 1, the user is again reviewing how each project performed against their individual sales target. In this example, the user will still create a report to gather the yearly sales numbers from the projects, however the sales targets are defined in a reference table stored in Accolade, so they will need to create a second report to use this table information to create target lines.

For the chart report, the user has created a Project Sales Report that includes the **Project Name**, and selected the **Total Sales** metric to be included in the report. For the target line report, the user has created a Sales Reference Table report that uses the reference table data for its information source.

Using the Project Sales Report as the source for the chart, and the Sales Reference Table as the source for the target lines, make the following selections for a bar chart:

- For the chart setup, select Project Sales Report as the Report Source, Project Name as the Grouping value and Total Sales as the Bar value, to create bars that represent the total sales for each project.
- For the targets setup, select Sales Reference Table as the Target Line Report Source,
 Project as the Target Line Report Key value and Sales Goal as the Target Line Report
 Value, to create target lines that represent the sales targets for each project.

As with the single source grouped bar and stacked bar examples, the user can include additional metrics in their chart and reports in order to visually represent the comparisons.

Example 3 - Bar Charts Using Aggregated Metric Totals

In this scenario, the user has several regions that are being reviewed against their regional yearly sales targets. There are multiple projects within each region, so the user needs to aggregate both the sales numbers and the total sales forecast for each region. For the report, the user has created a Regional Sales Report that includes data for all of the projects in the region, and selected the **Sales Region**, **Total Sales**, and **Projected Sales** metrics to be included in the report.

Using the Regional Sales Report as the source for both the chart and the target lines, make the following selections for a bar chart:

- For the chart setup, select Regional Sales Report as the Report Source, Sales Region as the
 Grouping value and Total Sales as the Bar value, to create bars that represent the total sales
 numbers for each region. Since there are multiple projects in each region, the bar will display the
 aggregated Total Sales value.
- For the targets setup, select Regional Sales Report as the Target Line Report Source, Sales Region as the Target Line Report Key value and Projected Sales as the Target Line Report Value, to create target lines that represent the total sales targets for each region, Again since there are multiple projects in each region, the target line will display the aggregated Projected Sales value.

As with the previous examples, the user can include additional metrics in their chart and reports in order to visually represent the comparisons.

Important! When adding targets to bar charts, keep the following guidelines in mind:

• Select appropriate data types and values to render a meaningful chart and targets. The system will not prevent you from selecting different data types and will plot selected data as best as possible without error.

- Target lines can be turned on and off by clicking on the Targets legend within the chart.
- Target lines are only valid for use in bar charts that are displayed vertically.
- In stacked bar charts, target lines will not display if Stacked to 100% is selected.

Notes:

- To delete a saved chart, display the chart from the Charts & Reports page, click / to display the chart settings, and click Delete at the bottom of the page. Only the chart owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the chart.
- If the Replace Empty Value system parameter is set to 0, charts may render inconsistently due to empty or missing data returned by the report.
- Reporting Rights are not required to view the chart in a page layout; however a user must be an owner or have at least one matching user role for the chart to display in the layout.

Importing and Exporting Accolade Charts

Accolade provides Administrators and Process Designers the ability to export charts settings and configuration from one Accolade environment and import them into another Accolade environment. For example, your company may have separate test and production environments or company branches hosted in separate Accolade instances. Instead of having to recreate online charts in each environment, download the information and import into a different environment.

The download exports the chart configuration information into a spreadsheet file with the parts of the charts grouped into tabs.

To export chart settings:

- 1. From the System menu, select Content Source > Charts & Reports Manager.
- 2. Select the charts and reports that you want to download.

To narrow the list by chart name or system name, add the criteria to filter by in the appropriate filter text box. These filters are case insensitive.

To narrow the list by category, select a category to display in the **Category** list. To download all charts and reports, select **All**.

3. Click **Download** in the top right corner of the page.

Accolade downloads all configured charts and reports in four separate spreadsheet files within a zip file, and saves it to a temporary internet files directory. Charts settings are downloaded to a workbook titled CHART_Workbook.xlsx and reports are downloaded separately in a workbook titled RPT Workbook.xlsx. Save the file to a more accessible location.

Note: Only components to which you have view and/or edit configuration access group rights will download. Components you can only view may be included in the file, but you can only upload changes to areas to which you have explicit edit permission.

To import chart settings into Accolade:

Important! In order to successfully import a chart, the report source the chart is built upon must exist in the environment prior to upload.

- 1. Ensure the data within the spreadsheet meets the requirements for a successful import.
- 2. Remove any charts that you do not want to include in the upload from the spreadsheet and save the file.
- 3. From the System menu, select Content Source > Charts & Reports Manager.
- 4. Click **Upload** in the top right corner of the page.
- Click Load File and select the spreadsheet file to load. The file name must be prefixed with 'CHART_' in order to successfully upload.
- 6. Click Upload File.

Accolade uploads the changes to the existing charts in the spreadsheet, and adds any new charts with unique system names.

7. (Optional) Click **Print** to print the import results for your records.

Note: Components that are imported are subject to group configuration rules. The user may assign components in a way that the configuration access groups are not consistent. This behavior is not allowed in the UI, and mismatches in either the user's access rights or the component's access group restrictions may result in warning or error messages during the upload, and may result in an incomplete upload.

Chart Settings Included in the Spreadsheet File

The columns in the downloaded spreadsheet include the settings for each chart in the order listed below. For a description of each chart setting, see the individual chart topic links in in the Creating Charts from Report Data Overview topic in the online Help.

Important! Using the import and export tools to update configuration can result in unintended changes if information is missing or creates an error during the import process. Sopheon recommends reviewing Importing and Exporting Configuration Best Practices in the online help before making changes in a production environment.

· General Settings

The General Settings worksheet contains the settings for all charts being imported. The columns correlate to the specific chart configuration fields upon chart creation.

Column Name	Accepted Values on Upload*	Additional Notes
System Name	Alphanumeric characters, underscore**	Used for matching in the upload.
		If a chart exists, its settings are changed with the values in the uploaded file.
		If a new, unique system name exists in the file when uploaded, a new chart is created.
Name	Any	If blank, the chart does not upload.
Chart Type	Sopheon.Accolade.Models.Domain.Charts.BarChart Sopheon.Accolade.Models.Domain.Charts.BubbleC hart Sopheon.Accolade.Models.Domain.Charts.Grouped BarChart Sopheon.Accolade.Models.Domain.Charts.LineChart ByColumns Sopheon.Accolade.Models.Domain.Charts.LineChart Trends Sopheon.Accolade.Models.Domain.Charts.PieChart Sopheon.Accolade.Models.Domain.Charts.StackedB arChart Sopheon.Accolade.Models.Domain.Charts.RadarCh art	If blank, the chart does not upload.
Report Source	Valid online report system name	If blank, the chart does not upload.
Display Title	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Category	Alphanumeric characters	If a new, unique category name exists in the file when uploaded, a new category is created. If left blank, the chart is placed in the Default category.

Column Name	Accepted Values on Upload*	Additional Notes
Description	Any	Can be blank.
Owners	Valid user system ID	Use the format with which the user accessed Accolade, such as domain\username or username@domain. com. Separate each additional owner with a pipe () character.
		If blank, the chart does not upload.
Roles	Valid Accolade user role	Separate each role with a pipe () character.
		Can be blank.
Available to Charts & Reports	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Available to Configurati on	Yes, Y, True, 1, X*	All other values are treated as No on upload.

^{*} For any column that accepts **Yes**, **Y**, **True**, **1**, or **X**, you can also enter **No**, **N**, **False**, or **0** if it helps you when entering data in the spreadsheet. All values other than **Yes**, **Y**, **True**, **1**, or **X** are treated as **No** when you upload the spreadsheet.

^{**} Limited to characters between a - z, A - Z, and 0 - 9, and the underscore ($_$).

• Bar Chart

The Bar Chart worksheet contains the settings for the bar charts being imported. The columns correlate to the specific bar chart configuration fields.

Column Name	Accepted Values on Upload*	Additional Notes
System	Alphanumeric	Used for matching in the upload.
Name	characters, underscore**	If a chart exists, its settings are changed with the values in the uploaded file.
		If a new, unique system name exists in the file when uploaded, a new chart is created.
Grouping	Valid report column system name	If blank, the chart does not upload.
Display Grouping Axis Label	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Bar	Valid report column system name	If blank the chart does not upload.
Display Bar Axis Label	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Show Grid Lines	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Display Type	Vertical Horizontal	If blank, the value defaults to Vertical on upload.
Rotate Horizontal Axis Text	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Color Theme	Theme 1 Theme 2 Theme 3 Theme 4 Theme 5	If blank, the value defaults to Theme 1 on upload.
Target Line Report Source	Valid online report system name	Can be blank.
Target Line Report Key	Valid report column system name	Can be blank.
Target Line Report Value	Valid report column system name	Can be blank.
Number Format Horizontal	#;(#) #,###;(#,###) \$#,###;(\$#,###)	If blank, the value defaults to #;(#) on upload.

Column Name	Accepted Values on Upload*	Additional Notes
Axis		
Number Format Bars	#;(#) #,###;(#,###) \$#,###;(\$#,###)	Indicates how values within the chart are displayed. If blank, the value defaults to #;(#) on upload.
Display Totals	Vertical Horizontal	Can be blank.

^{*} For any column that accepts **Yes**, **Y**, **True**, **1**, or **X**, you can also enter **No**, **N**, **False**, or **0** if it helps you when entering data in the spreadsheet. All values other than **Yes**, **Y**, **True**, **1**, or **X** are treated as **No** when you upload the spreadsheet.

• Pie Chart

The Pie Chart worksheet contains the settings for the pie charts being imported. The columns correlate to the specific pie chart configuration fields.

Column Name	Accepted Values on Upload*	Additional Notes
System	Alphanumeric	Used for matching in the upload.
Name	characters, underscore**	If a chart exists, its settings are changed with the values in the uploaded file.
		If a new, unique system name exists in the file when uploaded, a new chart is created.
Slice	Valid report column	If blank, the chart does not upload.
Represents	system name	
Slice Size	Valid report column	If blank, the chart does not upload.
	system name	
Slice Name	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Slice Value	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Slice	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Percentage		
Doughnut	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Exploded	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Number Format	#;(#) #,###;(#,###) \$#,###;(\$#,###)	If blank, the value defaults to #;(#) on upload.

^{**} Limited to characters between a - z, A - Z, and 0 - 9, and the underscore ($_$).

Column Name	Accepted Values on Upload*	Additional Notes
Color Theme	Theme 1 Theme 2 Theme 3 Theme 4 Theme 5	If blank, the value defaults to Theme 1 on upload.
Legend	None Right Left	If blank, the value defaults to None on upload.

^{*} For any column that accepts **Yes**, **Y**, **True**, **1**, or **X**, you can also enter **No**, **N**, **False**, or **0** if it helps you when entering data in the spreadsheet. All values other than **Yes**, **Y**, **True**, **1**, or **X** are treated as **No** when you upload the spreadsheet.

 $^{^{\}star\star}$ Limited to characters between a - z, A - Z, and 0 - 9, and the underscore (_).

• Bubble Chart

The Bubble Chart worksheet contains the settings for the bubble charts being imported. The columns correlate to the specific bubble chart configuration fields.

Column Name	Accepted Values on Upload*	Additional Notes
System	Alphanumeric	Used for matching in the upload.
Name	characters, underscore**	If a chart exists, its settings are changed with the values in the uploaded file.
		If a new, unique system name exists in the file when uploaded, a new chart is created.
Horizontal Axis	Valid report column system name	If blank, the chart does not upload.
Display Horizontal Axis Label	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Show Horizontal Grid Lines	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Rotate Horizontal Axis Text	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Horizontal Axis Scale	Automatic Custom	If blank, defaults to Automatic .
Horizontal Axis Range Min	Any number	If Horizontal Axis Scale is defined as Custom, enter a value for the chart range minimum value. Otherwise leave blank.
Horizontal Axis Range Max	Any number	If Horizontal Axis Scale is defined as Custom, enter a value for the chart range maximum value. Otherwise leave blank.
Vertical Axis	Valid report column system name	If blank, the chart does not upload.
Display Vertical Axis Label	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Show Vertical Grid Lines	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Vertical Axis Scale	Automatic Custom	If blank, defaults to Automatic .

Column Name	Accepted Values on Upload*	Additional Notes
Vertical Axis Range Min	Any number	If Vertical Axis Scale is defined as Custom , enter a value for the chart range minimum value. Otherwise leave blank.
Vertical Axis Range Max	Any number	If Vertical Axis Scale is defined as Custom , enter a value for the chart range maximum value. Otherwise leave blank.
Bubble Size	Valid report column system name	If blank, the chart does not upload.
Bubble Represents	Valid report column system name	Can be blank.
Bubble Color	Valid report column system name	Can be blank.
Bubble Opacity	0.1 0.2 0.3 0.4 0.5 0.6 07 0.8 0.9	If blank, the chart does not upload.
Color Theme	Theme 1 Theme 2 Theme 3 Theme 4 Theme 5 All the same color	If blank, the value defaults to Theme 1 on upload.
Legend	None Right Left	If blank, the value defaults to None on upload.
Number Format Horizontal Axis	#;(#) #,###;(#,###) \$#,###;(\$#,###)	If blank, the value defaults to #;(#) on upload.
Number Format Vertical Axis	#;(#) #,###;(#,###) \$#,###;(\$#,###)	If blank, the value defaults to #;(#) on upload.
Number Format Bubble Size	#;(#) #,###;(#,###) \$#,###;(\$#,###)	Indicates how values within the bubble's tooltips are displayed. If blank, the value defaults to #;(#) on upload.

^{*} For any column that accepts **Yes**, **Y**, **True**, **1**, or **X**, you can also enter **No**, **N**, **False**, or **0** if it helps you when entering data in the spreadsheet. All values other than **Yes**, **Y**, **True**, **1**, or **X** are treated as **No** when you upload the spreadsheet.

^{**} Limited to characters between a - z, A - Z, and 0 - 9, and the underscore ($_$).

• Grouped Bar Chart

The Grouped Bar Chart worksheet contains the settings for the grouped bar charts being imported. The columns correlate to the specific grouped bar chart configuration fields.

Column Name	Accepted Values on Upload*	Additional Notes
System	Alphanumeric	Used for matching in the upload.
Name	characters, underscore**	If a chart exists, its settings are changed with the values in the uploaded file.
		If a new, unique system name exists in the file when uploaded, a new chart is created.
Horizontal Column	Valid report column system name	If blank, the chart does not upload.
Display Grouping Label Horizontal	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Bars	Valid report column system name	Separate each additional bar with a pipe () character.
		If Vertical Column has a value, then only one bar segment allowed.
		If blank, the chart does not upload.
Bar Axis Units	Any	Can be blank.
Display Type	Vertical Horizontal	If blank, the value defaults to Vertical on upload.
Rotate Horizontal Axis Text	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Number Format Bars	#;(#) #,###;(#,###) \$#,###;(\$#,###)	Indicates how values within the chart are displayed. If blank, the value defaults to #;(#) on upload.
Legend	None Right Left	If blank, the value defaults to None on upload.
Color Theme	Theme 1 Theme 2 Theme 3 Theme 4 Theme 5	If blank, the value defaults to Theme 1 on upload.

Column Name	Accepted Values on Upload*	Additional Notes
Target Line	Valid online report	Can be blank.
Report	system name	
Source		
Target Line	Valid report column	Can be blank.
Report Key	system name	
Target Line	Valid report column	Can be blank.
Report Value	system name	
Vertical	Valid report column	Can be blank.
Column	system name	
Display	Yes, Y, True, 1, X*	Can be blank.
Grouping		
Label		
Vertical		
Number	#;(#)	If blank, the value defaults to #;(#) on upload.
Format	#,###;(#,###)	
Horizontal	\$#,###;(\$#,###)	
Axis		
Number	#;(#)	If blank, the value defaults to #;(#) on upload.
Format	#,###;(#,###)	
Vertical Axis	\$#,###;(\$#,###)	

^{*} For any column that accepts **Yes**, **Y**, **True**, **1**, or **X**, you can also enter **No**, **N**, **False**, or **0** if it helps you when entering data in the spreadsheet. All values other than **Yes**, **Y**, **True**, **1**, or **X** are treated as **No** when you upload the spreadsheet.

Stacked Bar Chart

The Stacked Bar Chart worksheet contains the settings for the stacked bar charts being imported. The columns correlate to the specific stacked bar chart configuration fields.

Column Name	Accepted Values on Upload*	Additional Notes
System	Alphanumeric	Used for matching in the upload.
Name	characters, underscore**	If a chart exists, its settings are changed with the values in the uploaded file.
		If a new, unique system name exists in the file when uploaded, a new chart is created.
Horizontal	Valid report column	If blank, the chart does not upload.
Column	system name	
Display Axis Label	Yes, Y, True, 1, X*	All other values are treated as No on upload.

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Column Name	Accepted Values on Upload*	Additional Notes
Horizontal		
Bar	Valid report column	Separate each bar with a pipe () character.
Segments	system name	If Vertical Column has a value, then only one bar segment allowed.
		If blank, the chart does not upload.
Stacked to 100%	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Display Totals	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Bar Axis Units	Any	Can be blank.
Display Type	Vertical Horizontal	If blank, the value defaults to Vertical on upload.
Rotate Horizontal Axis Text	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Number Format Bars	#;(#) #,###;(#,###) \$#,###;(\$#,###)	Indicates how values within the chart are displayed. If blank, the value defaults to #;(#) on upload.
Legend	None Right Left	If blank, the value defaults to None on upload.
Color Theme	Theme 1 Theme 2 Theme 3 Theme 4 Theme 5	If blank, the value defaults to Theme 1 on upload.
Target Line Report Source	Valid online report system name	Can be blank.
Target Line Report Key	Valid report column system name	Can be blank.
Target Line Report Value	Valid report column system name	Can be blank.
Vertical Column	Valid report column system name	Can be blank.
Display Axis Label Vertical	Yes, Y, True, 1, X*	Can be blank.

Column Name	Accepted Values on Upload*	Additional Notes
Number	#;(#)	If blank, the value defaults to #;(#) on upload.
Format	#,###;(#,## #)	
Horizontal	\$#,###;(\$#,###)	
Axis		
Number	#;(#)	If blank, the value defaults to #;(#) on upload.
Format	#,###;(#,###)	
Vertical Axis	\$#,###;(\$#,###)	

^{*} For any column that accepts **Yes**, **Y**, **True**, **1**, or **X**, you can also enter **No**, **N**, **False**, or **0** if it helps you when entering data in the spreadsheet. All values other than **Yes**, **Y**, **True**, **1**, or **X** are treated as **No** when you upload the spreadsheet.

Radar Chart

The Radar Chart worksheet contains the settings for the radar charts being imported. The columns correlate to the specific radar chart configuration fields.

Column Name	Accepted Values on Upload	Additional Notes
System	Alphanumeric	Used for matching in the upload.
Name	characters, underscore**	If a chart exists, its settings are changed with the values in the uploaded file.
		If a new, unique system name exists in the file when uploaded, a new chart is created.
Polygons	Valid report column system name	If blank, the chart does not upload.
Spokes	Valid report column	Separate each spoke with a pipe () character.
	system name	If blank, the chart does not upload.
Spoke Axis	Automatic	If blank, defaults to Automatic .
Scale	Custom	
Spoke Axis	Any number	If Spoke Axis Scale is defined as Custom, enter a
Range Min		value for the chart range minimum value.
		Otherwise leave blank.
Spoke Axis	Any number	If Spoke Axis Scale is defined as Custom, enter a
Range Max		value for the chart range maximum value.
		Otherwise leave blank.
Number	#;(#)	If blank, the value defaults to #;(#) on upload.
Format	#,###;(#,###)	
	\$#,###;(\$#,###)	

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Column Name	Accepted Values on Upload	Additional Notes
Style	Lines Only Lines and Fill Fill Only	If blank, the value defaults to Lines Only on upload.
Opacity	0.1 0.2 0.3 0.4 0.5 0.6 07 0.8 0.9 1	If Lines Only is selected as the style, set the opacity to 1 on upload.
Legend	None Right Left	If blank, the value defaults to None on upload.
Color Theme	Theme 1 Theme 2 Theme 3 Theme 4 Theme 5	If blank, the value defaults to Theme 1 on upload.

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• Line Chart by Columns Chart

The Line Chart by Columns Chart worksheet contains the settings for the line charts being imported. The columns correlate to the specific line chart by columns chart configuration fields.

Column Name	Accepted Values on Upload*	Additional Notes
System	Alphanumeric	Used for matching in the upload.
Name	characters, underscore**	If a chart exists, its settings are changed with the values in the uploaded file.
		If a new, unique system name exists in the file when uploaded, a new chart is created.
Lines	Valid report column system name	If blank, the chart does not upload.
Horizontal Axis Title	Alphanumeric characters	Can be blank.
Show Horizontal	Yes, Y, True, 1, X*	All other values are treated as No on upload.

Column Name	Accepted Values on Upload*	Additional Notes
Grid Lines		
Columns	Valid report column	Separate column names using a pipe () character.
	system name	If blank, the chart does not upload.
Vertical Axis	Alphanumeric	Can be blank.
Title	characters	
Show Grid Lines	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Rotate	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Horizontal		
Axis Text		
Display	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Point Marker		
Style	Lines Only Lines and Fill	If blank, the value defaults to Lines Only on upload.
	Fill Only	
Legend	None	If blank, the value defaults to None on upload.
Legena	Right	in blank, the value delaults to None on upload.
	Left	
Color Theme	Theme 1	If blank, the value defaults to Theme 1 on upload.
	Theme 2	
	Theme 3	
	Theme 4	
	Theme 5	
Number	#;(#)	If blank, the value defaults to #;(#) on upload.
Format	#,###;(#,###) *********************************	
Horizontal Axis	\$#,###;(\$#,###)	
Number	#./#\	If blank, the value defaults to #//#\ on upleed
Format	#;(#) #,###;(#,###)	If blank, the value defaults to #;(#) on upload.
Vertical Axis	#,###,(#,###) \$#,###;(\$#,###)	
701 tioui Axis	Ψι,,ιιιιι,(Ψιτ, πππ)	

^{*} For any column that accepts Yes, Y, True, 1, or X, you can also enter No, N, False, or 0 if it helps you when entering data in the spreadsheet. All values other than Yes, Y, True, 1, or X are treated as No when you upload the spreadsheet.

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· Line Chart Trends Chart

The Line Chart Trends Chart worksheet contains the settings for the line series charts being imported. The columns correlate to the specific line chart trends chart configuration fields.

Column Name	Accepted Values on Upload*	Additional Notes
System	Alphanumeric	Used for matching in the upload.
Name	characters, underscore**	If a chart exists, its settings are changed with the values in the uploaded file.
		If a new, unique system name exists in the file when uploaded, a new chart is created.
Horizontal Axis Label	Alphanumeric characters	Can be blank.
Rotate Horizontal Axis Text	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Show Horizontal Grid Lines	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Start at Zero	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Horizontal Number Format	#;(#) #,###;(#,###) \$#,###;(\$#,###)	If blank, the value defaults to #;(#) on upload.
Horizontal Axis Columns	Valid report column system name	If blank, the chart does not upload.
Vertical Axis Label	Alphanumeric characters	Can be blank.
Show Vertical Grid Lines	Yes, Y, True, 1, X*	All other values are treated as No on upload.
Vertical Number Format	#;(#) #,###;(#,###) \$#,###;(\$#,###)	If blank, the value defaults to #;(#) on upload.
Vertical Axis Columns	Valid report column system name	Separate column names using a pipe () character. If blank, the chart does not upload.
Group By Columns	Valid report column system name	Separate column names using a pipe () character. If blank, the chart does not upload.
Display Point Marker	Yes, Y, True, 1, X*	All other values are treated as No on upload.

Column Name	Accepted Values on Upload*	Additional Notes
Line Style	Lines Only Lines and Fill Fill Only	If blank, the value defaults to Lines Only on upload.
Legend	None Right Left	If blank, the value defaults to None on upload.
Color Theme	Theme 1 Theme 2 Theme 3 Theme 4 Theme 5	If blank, the value defaults to Theme 1 on upload.

^{*} For any column that accepts **Yes**, **Y**, **True**, **1**, or **X**, you can also enter **No**, **N**, **False**, or **0** if it helps you when entering data in the spreadsheet. All values other than **Yes**, **Y**, **True**, **1**, or **X** are treated as **No** when you upload the spreadsheet.

Access Groups

The Access Groups worksheet includes the access groups for the charts being uploaded or downloaded.

Column Name	Accepted Values on Upload	Additional Notes
Chart System Name	Alphanumeric characters, underscore**	Used for matching for upload. If a chart exists, its settings are changed with the values in the uploaded file.
Access Group	Valid access group system name	Include a separate row for each access group.

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Cycles

The Cycles worksheet includes the chart cycles for the charts being uploaded or downloaded. The columns correlate to specific chart types to cycle through.

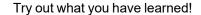
Column Name	Accepted Values on Upload	Additional Notes
Chart System Name	Alphanumeric characters, underscore**	Used for matching for upload.

^{**} Limited to characters between a - z, A - Z, and 0 - 9, and the underscore ($_$).

Column Name	Accepted Values on Upload	Additional Notes
		If a chart exists, its settings are referenced in the uploaded file. If blank, no
		cycles upload.
Chart	Sopheon.Accolade.Models.Domain.Charts.BarChart	If blank, the
Туре	Sopheon.Accolade.Models.Domain.Charts.BubbleChart Sopheon.Accolade.Models.Domain.Charts.GroupedBarChart Sopheon.Accolade.Models.Domain.Charts.LineChartTrends Sopheon.Accolade.Models.Domain.Charts.PieChart Sopheon.Accolade.Models.Domain.Charts.StackedBarChart	referenced chart does not upload.
Cycles	References columns in the charts that are designated as a cycle.	Used for matching for upload. If chart settings exist, the referenced chart is in the upload file.
		If blank, no cycles upload.

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Exercises - Creating Online Reports





- Create a report using the online report that includes all open projects that started after a date of your choosing.
- Limit the users that can edit the report configuration.
- Set the report to download on Wednesday at 6:00 am.
- Create a bar chart that represents aspects of the report.

Accolade Excel Reports Overview

Accolade Excel reports can be added to the **Charts & Reports** page within Accolade and/or to a process model for availability within a project. These reports are built and viewable in Excel, provide

flexibility in formatting, and can be created using the Accolade Office Extensions add-in application. The application provides an interface to create a data report based on Accolade data.

Creating Accolade Excel Reports using Accolade Office Extensions

With the Accolade Office Extensions add-in, anyone in your organization with All Reporting Rights can create a report in Excel using the add-in.

Reports created via the Accolade Office Extensions add-in provides the following advantages:

- No SQL knowledge is required. You can select Accolade data directly from the report interface without writing SQL queries.
- Reports can be refreshed when downloaded from Accolade to contain up-to-date information and formatted for distribution or review, query-based tables cannot.



Use the **Report Privacy Warning Text** system parameter to add a notification within the report to indicate the content is private or confidential, and should not be forwarded to others.

The information below assumes you are using the Accolade Office Extensions add-in to create reports and assumes you are familiar with basic Excel functionality. For more information about manipulating the data in a report, see the online Help available from within the add-in.

To create an Accolade Excel report:

1. Open Excel and navigate to the Accolade menu in the Excel ribbon.

This allows Excel to pull data from Accolade into the report and allows reports to be created or refreshed to display current Accolade information.



If necessary, connect to the appropriate server by clicking **Server** and entering the server URL.

- 2. Click Data Reports and do one of the following:
 - To add a new report Click Add New.
 - To create a report based on an existing report Click let to copy the report.
 - To edit an existing report Click the name of the report to open it for editing.
- 3. Select a subject from the drop-down list, such as **Projects** or **Users**, to display the column sets available within that subject.
- 4. Double-click or drag and drop the column names from the left side of the dialog to any area in the **Columns** tab to include the column in the report.
 - To search for a column, enter search criteria in the Find field after selecting the subject.
 - Use the and options to expand or collapse the subject data sets in order to select specific column options.

- To include an entire column set, drag and drop the column set to the **Columns** tab.
- To change the column order of selected columns, drag and drop a column into a new location within the list.
- To remove a column, click in the corresponding row.
- 5. (Optional) Refine the content of the report as necessary.
 - **Rename columns** Click in one or more selected columns and enter a new column name that is more appropriate for the report you are creating.
 - Set column sorting Click next to one or more selected columns to indicate whether the column is sorted in ascending or descending order. If you select more than one column to sort by, indicate the order in which the columns sort; 1 being the primary sort, 2 the secondary sort, and so on.
 - **Determine column properties** For number and date columns, click or in the **Properties** area to group data together by aggregation or select date formats. Select the aggregate method or date format and click away to apply the changes. All selected aggregate methods are added to the report columns list with the aggregate method appended to the column name.
 - For example, to summarize the total costs for all projects within a brand, select **Sum** as the aggregate value in a column that represents the total costs for a project.
 - Add Count Column If you select to summarize values within the report, click Add
 Count Column to add a column that shows how many rows of source data are combined in
 the summary row.
 - You can order and rename the added column as you can other columns; however, you can add only one **Count** column to the report.
 - Add Calculated Column Click Add Calculated Column to add a column to the report that displays a calculation based on other column data.
- 6. (Optional) On the **Filters** tab, double-click or drag and drop the column name from the left side of the dialog to any area in the **Filters** tab to use it as filter criteria that data must match to be included in the report.
- 7. (Optional) On the **Report Details** tab, add the following information:

Field	Description
Report Name	Enter a name which identifies the report.
Report Location	Select one of the following options for the location to place the report:
	Existing worksheet - Select this check box to add the report to an existing worksheet that does not already contain a report, and select the appropriate existing worksheet name from the drop-down list.
	New worksheet - Select this check box to create and add the

Field	Description
	report to a new worksheet, and enter the name for the new worksheet.
Override Project Filtering	Select this check box to include the entire report set from within a project.
	The report will not filter to project-specific data when viewed from within a project, and will display all projects in a portfolio regardless of security.
Transpose	Select this check box to transpose the column and row data when the report is rendered.

- 8. On the **Advanced Matrix Settings** tab, if more than one matrix was selected in the report columns, click **Add** to add the matrix join definitions.
- 9. Click **Done** to apply your changes and generate the report.
- 10. Save the report to an accessible location.

Notes:

- Click Refresh Columns in the lower left of the dialog to refresh the columns. Any
 columns modified in the Accolade application while the user is creating or editing the
 report will be updated. Deleted columns will be removed from list of available columns
 and will display red in the Columns tab and Filters tab. Delete the selections in red to
 correct the report.
- To delete a saved report created in Excel, click Data Reports in the Accolade menu on
 the Excel ribbon and click next to the corresponding report. Deleting a report created
 using the Accolade Office Extensions add-in deletes report data being pulled from
 Accolade into the workbook. Deleting a report directly from the worksheet does not delete
 the data associated with the report.

Adding Calculated Columns to Accolade Excel Reports

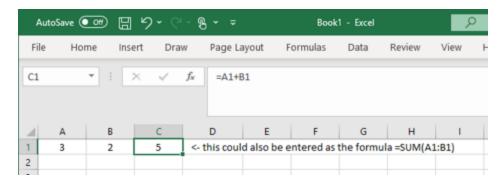
Reporting details can be contained in multiple sources within Accolade. To combined related data values to be used for reporting or the creation of charts or presentations, users can create reports that include calculated columns that calculate and/or display combined data, allowing users to manipulate and analyze Accolade data values.

For example, a user may have several different project metrics that represent categories of project costs such as Administrative, Operating, Marketing, etc. In order to calculate and display the sum of these project costs within an Accolade report or chart, the user can include a calculated column in their report setup.

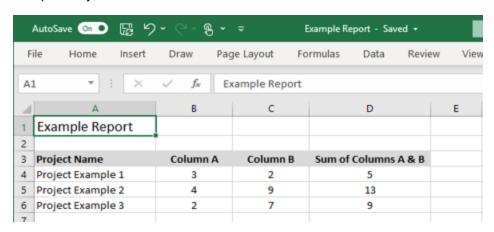


Writing a calculated column formula in Accolade is slightly different than writing an equation in math class, or using formulas in Excel. The most notable difference is the use of the equal sign (=). For example, if you want to add the numbers 3 and 2:

- In math class, the equation would read 3+2=, with a calculated value of 5.
- In Excel, formulas start with the equal sign, so it would look like =3+2. When entered, the value in the selected cell would return as 5. If you wanted to add two cell values, it would look something like =A1+B1 or =SUM(A1:B1). Assuming the values in A1 and B1 were 3 and 2 respectively, it would return the value 5.



In an Accolade Excel report created using the Accolade Office Extensions add-in, the equal sign is assumed, so it does not need to be included in the formula field. If you wanted to add the values of Column A and Column B, it would look like [Column A] + [Column B] or Sum ([Column A], [Column B]). Assuming the first row values of Column A and Column B were 3 and 2 respectively, it would return the value 5.



To add a calculated column to an Accolade Excel report:

Note: See below for a list of calculations that are currently supported for reporting.

- 1. Create a new report or open an existing report for editing.
- 2. On the **Columns** tab, ensure the columns to be used in the calculation are included in the report.

- P
- Report calculations are executed from left to right. In order for selected columns to be used in a calculated column, they must a) be selected as a column for the report, and b) be included before they are referenced by a calculated column (this means they must appear to the left of the calculated column when displayed, or above the calculated column when selecting columns in the report setup).
- 3. Click Add Calculated Column.

The column is added with two fields - one for the display name for the column, and one for the formula to be calculated.

- 4. In the left field, enter the column name to be displayed when the report is generated.
- 5. In the f field, enter the formula to be calculated within the report.

When entering your formula, the columns are referenced by enclosing the column display name inside of square brackets. In the example above, Column A is entered as **[Column A]**.

- 6. Click f_{\bullet} to select the appropriate datatype for the calculated column.
 - **Date** Select this option when you want the column data to display as a Date datatype, for example when using the DateAdd function to project a future project date.
 - Number Select this option when you want the column data to display as a Number datatype, for example when using the Sum function to combine the values of two or more columns of expense values.
 - **String** Select this option when you want the column data to display as a String datatype, for example when using the Concatenate function to display user name and functions combined in one column.
- 7. (Optional) Drag and drop the calculated column to a new location within the list.

Note that while the calculated column cannot be displayed in the report until after its reference columns are displayed, you can have calculated columns that are displayed between data columns as necessary. Using the example above, after the **Sum** column we could add **Column C** and **Column D** to the report and then add another calculated column, and so forth.

- 8. Finish setting up the report, as necessary.
- 9. Click **Done** to apply your changes and generate the report.
- 10. Save your changes to the report.

Available Formulas for Calculated Columns in Reporting

The following section details the operators and functions that are available for use when creating your calculated column formulas.

Important! Note that the examples use "Column A", "Column B", and "Column C" to generically refer to the display names of different columns that are included in the report data.

Operators

Operators are process or mathematical parts of expressions, such as addition and multiplication, and relationships such as greater than or less than. Use the operators below within your calculated column expressions.

Operator	Example	
Additive and Subtractive Operators		
+ (plus, plus sign)	[Column A]+[Column B]	
- (minus, dash)	[Column A]-[Column B]	
Multiplicative Operators		
* (multiplied by, asterisk)	[Column A]*5	
/ (divided by, slash)	[Column A]/[Column B]	
% (mod, percent sign)	[Column A]%10	
Primary Operators		
value (integers, text strings, dates, functions)	('this is a text string') While single quotes work for dates, we recommend wrapping dates in pound or hash signs instead to ensure consistency of data types. For example, (#2021-10-19#).	
() (parentheses)	1000-(6*[Column A])	
Relational Operators		
= (equals)	[Column A]=250	
<> (does not equal)	[Column A]<>[Column B]	
> (greater than, angle bracket)	[Column A]>250	
>= (greater than or equal to)	[Column A]>=250	
< (less than, angle bracket)	[Column A]<500	
<= (less than or equal to)	[Column A]<=100	
Logical Operators		
or, (double pipe)	[Column A]<[Column B] [Column A]<500	
and, &&	[Column A]<[Column B]&&[Column A]<1000	

Functions

The functions included in the calculated column formula determine in part what is returned in the column. Use the functions described below within your calculated expressions to return data within a calculated column.

For more information on the description or formatting for the calculations below, see Calculated Metric Expressions Reference.

Function	Example Formula
Abs	Abs([Column A])
Acos	Acos([Column A])
Asin	Asin([Column A])
Atan	Atan([Column A])
Avg	Avg([Column A], [Column B], [Column C])
Ceiling	Ceiling([Column A])
Concatenate	Concatenate('text1',[Column A], 'text2', 'textN')
Contains	Contains([Column A], 'My Blue Heaven', 2, 7)
Cos	Cos([Column A])
DateAdd	DateAdd('D', 5, [Column A])
DateDiff	DateDiff('D',[Column A], [Column B])
DatePart	DatePart('M', [Column A])
Ехр	Exp([Column A])
Find	Find([Column A], 'My Blue Heaven', 2, 20)
First	First([Column A], [Column B], [Column C])
Floor	Floor([Column A])
IEEERemainder	IEEERemainder([Column A], [Column B])
If	If([Column A]>500, 'Go ahead', 'Stop')
In	In([Column A], 1, 2, 3)
Join	Join([Column A], [Column B], [Column C]), ' ')
Length	Length([Column A])
Log	Log([Column A], 10)
Log10	Log10([Column A])

Function	Example Formula
Lower	Lower([Column A])
LTrim	LTrim([Column A])
Max	Max([Column A], [Column B], [Column C])
Min	Min([Column A], [Column B], [Column C])
Now	Now()
Pow	Pow([Column A], 2)
Replace	Replace([Column A], 'Blue', 'red')
Round	Round([Column A], 2)
RTrim	RTrim([Column A])
Search	Search('blue', [Column A], 5, 30).
Sign	Sign([Column A])
Sin	Sin([Column A])
Sqrt	Sqrt([Column A])
SubString	SubString([Column A], 4, 10)
Sum	Sum([Column A], [Column B], [Column C])
Tan	Tan([Column A])
Trim	Trim([Column A])
Truncate	Truncate([Column A])
Upper	Upper([Column A])

To delete a calculated column from an Accolade Excel report, click **Data Reports** in the Accolade menu on the Excel ribbon and click the name of the report to open it for editing. Expand the **Columns** tab, and click in the corresponding calculated column row to delete it. Click **Done** to apply your changes and generate the report and save your changes to the report.

Adding Dynamic Filters to Accolade Excel Reports

Capture and filter report data using relative metric and metadata field codes to create dynamic reports that display data according to defined filters within the report. Filtering reports based on relative metrics

and metadata field codes allows you to narrow the returned data set while still generating a higher level view. Dynamic filters allow you to view a subset of data from within different projects.

Important! Ensure the **Override project filtering** check box is selected on the report settings. This enables the report to include data across a subset of projects.

To add dynamic filters to an Accolade Excel report:

- 1. Create a new report, or open an existing report for editing.
- 2. Click and expand the Filters tab.
- 3. To add filters, double-click or drag and drop the column names from the left side of the dialog to any area in the **Filters** tab.
 - To search for a column to add as a filter, enter search criteria in the Find field after selecting the subject.
 - To include an entire column set, drag and drop the column set to any area in the Filters tab.
 - If multiple filters are added to the report, data must meet ALL filter criteria to be included in the report.
- For each added filter, select the operator and filter criteria that report data must match to be included.

The filter operators are dependent on the column selected to filter by, and generally include options such as =, is empty, is one of, does not contain, and more.

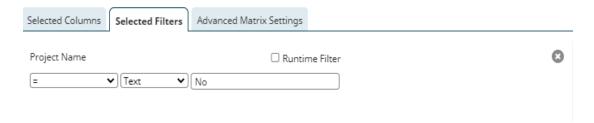
The filter type must be selected from one of the following, and the following field identifies the criteria to be met:

- Metadata Enter the field code display name and select from the returned list. Ensure you
 enter a valid query field code.
- Metric Enter the metric display name and select from the returned list.
- Text Enter or select a static string or numeric value such as a date.
- **Current User** Filters the report to data only applicable to the user logged in and viewing the report. Current User is only available for numeric or ID data type columns.

Type ahead to search for metrics and field codes when defining the filter criteria.

Only metrics and field codes that match the data type of the filter display for selection. For example, if you select a date filter, you can only select date metrics or field codes to define the relative filter.

For example, to create a report that returns a list of deactivated users, filter on the User Active column to return only users where the active flag is set to **No**.



- 5. *(Optional)* Select the **Prompt on Refresh** check box to prompt the user to review and/or update the filters when refreshing the data in the report.
- 6. Finish setting up the report, as necessary.
- 7. Click **Done** to apply your changes and generate the report.
- 8. Save your changes to the report.

- To delete a filter from an Accolade Excel report, click **Data Reports** in the Accolade menu on the Excel ribbon and click the name of the report to open it for editing. Expand the
 Filters section, and click in the corresponding filter row to delete it. Click **Done** to apply your changes and generate the report, and save your changes to the report.
- Long string and multi-select list metrics are currently not supported for use as metric filters.

Adding Multiple Matrices to Accolade Excel Reports

Reporting details can be contained in multiple sources within Accolade. To consolidate data into a single source to be used for reporting or the creation of charts or presentations, users can create reports to combine the data. Information from more than one project matrix can be pulled into a report by including a common value that is included in the sources, for example, using a Department or Region metric or a common Row ID.

In addition to selecting the matrix and metric columns to be included in the report, users must create join statements that define how the matrix information is related.



To add multiple matrices to an Accolade Excel report:

- 1. Create a new report or open an existing report for editing.
- On the Advanced Matrix Settings tab, select the matrices and metrics to be included in the report.
- 3. Click Add to add the matrix join statements.
- 4. In each side of the dialog, select one of the matrices from the drop-down list, and select an option to use as the common value to join the matrices.

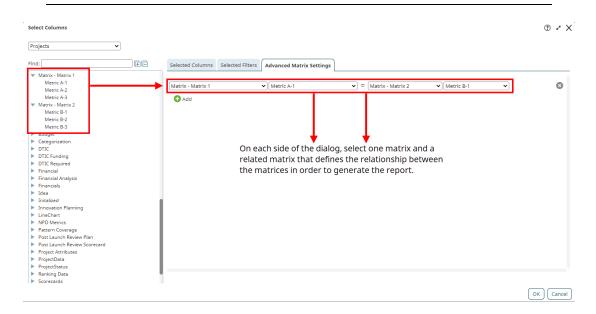
The two selected matrices must be different, but the matrix/metric combination can be any combination of metrics or row IDs, as long as the selected metrics share a common value and are of the same data type.

Selecting a metric will define it as the common value between the two matrices. Note that it can be the same metric if it is used in both matrices, or it can be different metrics that will have the same value in both matrices. In addition, a metric used as a common value does not need to be added as a reporting column in order to be used to create the join statement.

Selecting Row ID will compare matrices by rows, for example Row 1 in Matrix A will be compared with Row 1 in Matrix B, and so on. This can be used when there are no additional common values in the two matrices, and the matrices have a direct line-by-line comparison.



Caution! Selecting Row ID as a common value can cause inconsistencies in reporting. Since assigned Row IDs are not visible within a matrix, report results can be incorrect if rows have been deleted from a matrix or if there is a mismatch.



5. Repeat steps 3-4 to add additional matrix join statements as necessary.

All included matrices must have at least one related join statement, but a matrix can be referenced in more than one statement. For example, if you choose to include metrics from Matrix A, Matrix B, and Matrix C, you would need to create two statements to join the information.

You could create a statement that relates A to B, and one that relates B to C, or you could have a statement that relates A to B, and one that relates A to C.

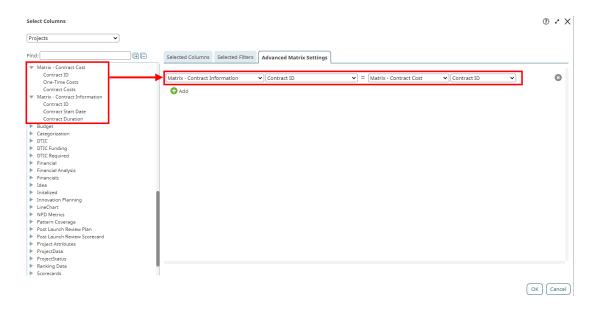
- 6. Finish setting up the report, as necessary.
- 7. Click **Done** to apply your changes and generate the report.

Note: [EMPTY] or blank cells in your report may indicate a mismatch in the common value linking the matrices. If the project value referenced in the join statement is not defined in one of the matrices, for example if there is not a matching value in both matrices, or a matrix contains empty rows, the report will return partial or full rows that contain [EMPTY] values.

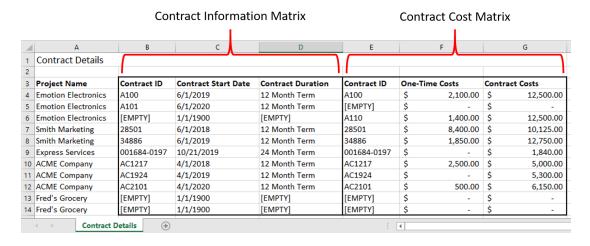


For example, a user has two different matrices that contain information related to vendor contracts for their projects, and needs to create a report containing relevant information from both matrices. They have a matrix named **Contract Information**, which contains the start date and duration of the specific contracts, and a second matrix named **Contract Cost**, which contains the costs related to the specific contracts.

To pull this information into one report, the user has added the related columns to the **Columns** tab, and created a join statement in the **Advanced Matrix Settings** tab that links the two matrices using the **Contract ID** metric that is a member of both matrices.



Once the user enters the remaining report details and clicks **Done**, the following report is generated.



Note the following:

The **Contract ID** field is the common identifier included in both matrices, and used to connect the relevant information.

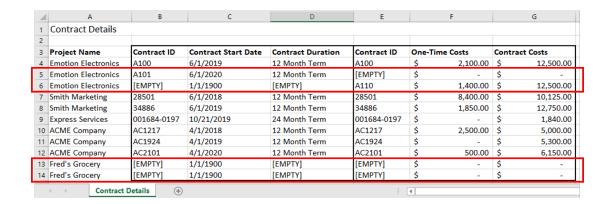
Columns B-D contain information that is from the **Contract Information** matrix in the related projects.

Columns E-G contain information that is from the Contract Cost matrix in the related projects.

The highlighted sections below show two different scenarios that may indicate missing or incomplete data.

- Rows 5 & 6 of the report display [EMPTY] in some of the data cells, which indicates Contract IDs values that are not found in both matrices. In row 5, the information for contract A101 is only included in the Contract Information matrix, so the related Contract Cost matrix fields are [EMPTY]. In row 6, the information for contract A110 is only included in the Contract Cost matrix, so the related Contract Information matrix fields are [EMPTY].
- Rows 13 & 14 display [EMPTY] cells in all of the data cells, which indicates that one or more of the included matrices either does not have any rows added, or contains empty rows.

Note: Although the [EMPTY] returned values are an indicator of potential issues, the mismatched values reported are dependent on the data type. String and list metrics will display as [EMPTY]. As shown in the example below, a number metric will display 0, and a date metric will represent the default 1/1/1900 date.



To delete a matrix join statement from an Accolade Excel report, click Data Reports in
the Accolade menu on the Excel ribbon and click the name of the report to open it for
editing. Click the Advanced Matrix Settings tab, and click in the corresponding
definition row to delete it. Click Done to apply your changes and generate the report and
save your changes to the report.

Excel Report Templates Overview

Add MS Excel report teplates to the **Charts & Reports** page within Accolade and to a process model for availability within a project. These reports are built and viewable in MS Excel, provide flexibility in formatting, and can be created using the Accolade Office Extensions add-in application. The application provides an interface to create a data report based on Accolade data. You can also create MS Excel reports using a template and the Accolade query infrastructure, creating charts and tables based on data pulled into the spreadsheet using queries.

Creating Excel Report Templates using Accolade Office Extensions



Create an online report within Accolade instead of in Excel using the Accolade Office Extensions add-in to create a refreshable report without having to leave Accolade and without having to install the Accolade Office Extensions add-in.

Anyone in your organization with All Reporting Rights can create an Excel report using the Accolade Office Extensions add-in. Created reports via the add-in provides the following advantages:

- No SQL knowledge is required. You can select Accolade data directly from the report interface without writing SQL queries.
- Reports can be refreshed when downloaded from Accolade to contain up-to-date information and formatted for distribution or review, query-based tables cannot.

The information below assumes you are using the Accolade Office Extensions add-in to create reports and assumes you are familiar with basic Excel functionality. For more information about manipulating the data in a report, see the online Help available from within the add-in.

To create an MS Excel report:

1. Open Excel and navigate to the Accolade menu in the Excel ribbon.

This allows Excel to pull data from Accolade into the report and allows reports to be created or refreshed to display current Accolade information.



If necessary, connect to the appropriate server by clicking **Server** and entering the server URL.

- 2. Click Data Reports and do one of the following:
 - To add a new report Click Add New.
 - To edit an existing report Click the name of the report to open it for editing.
 - To create a report based on an existing report Click to copy the report.
 - Use the arrow in the **Report Name** heading to sort reports in ascending or descending order.
- Select a subject from the drop-down list, such as **Projects** or **Users**, to display the column sets available within that subject.

- 4. Double-click or drag and drop the column names from the left side of the dialog to any area in the **Columns** tab to include the column in the report.
 - To search for a column, enter search criteria in the **Find** field after selecting the subject.
 - Use the 🗓 and 🖃 options to expand or collapse the subject data sets in order to select specific column options.
 - To include an entire column set, drag and drop the column set to the **Columns** tab.
 - To change the column order of selected columns, drag and drop a column into a new location within the list.
 - To remove a column, click in the corresponding row.
- 5. (Optional) Refine the content of the report as necessary.
 - **Rename columns** Click in one or more selected columns and enter a new column name that is more appropriate for the report you are creating.
 - Set column sorting Click next to one or more selected columns to indicate whether the column is sorted in ascending or descending order. If you select more than one column to sort by, indicate the order in which the columns sort; 1 being the primary sort, 2 the secondary sort, and so on.
 - **Determine column properties** For number and date columns, click or in the **Properties** area to group data together by aggregation or select date formats. Select the aggregate method or date format and click away to apply the changes. All selected aggregate methods are added to the report columns list with the aggregate method appended to the column name.
 - For example, to summarize the total costs for all projects within a brand, select **Sum** as the aggregate value in a column that represents the total costs for a project.
 - Add Count Column If you select to summarize values within the report, click Add
 Count Column to add a column that shows how many rows of source data are combined in
 the summary row.
 - You can order and rename the added column as you can other columns; however, you can add only one **Count** column to the report.
 - Add Calculated Column Click Add Calculated Column to add a column to the report that displays a calculation based on other column data.
- 6. *(Optional)* On the **Filters** tab, double-click or drag and drop the column name from the left side of the dialog to any area in the **Filters** tab to use it as filter criteria that data must match to be included in the report.
- 7. (Optional) On the **Report Details** tab, add the following information:

Field	Description
Report Name	Enter a name which identifies the report.

Field	Description
Report Location	Select one of the following options for the location to place the report:
	Existing worksheet - Select this check box to add the report to an existing worksheet that does not already contain a report, and select the appropriate existing worksheet name from the drop-down list.
	New worksheet - Select this check box to create and add the report to a new worksheet, and enter the name for the new worksheet.
Override Project Filtering	Select this check box to include the entire report set from within a project. The report will not filter to project-specific data when viewed from within a project, and will display all projects in a portfolio regardless of security.
Transpose	Select this check box to transpose the column and row data when the report is rendered.

- 8. On the **Advanced Matrix Settings** tab, if more than one matrix was selected in the report columns, click **Add** to add the matrix join definitions.
- 9. Click **Done** to apply your changes and generate the report.
- 10. Save the report to an accessible location.
- 11. Add the report to the Template Library using the **Report** type for access within Accolade.

Creating Excel Report Templates Using Queries

Note: Although the Report - Excel <version>.xltx base template is still available, Sopheon recommends creating online reports available from Workspace > My Workspace > Charts & Reports, or using the Accolade Office Extensions add-in.

If you are comfortable writing SQL queries, or if you need to create a report that requires an advanced database query, add a workbook to an Excel file that is populated with data from queries created within Accolade. To use queries within an Excel report, use the **Report - Excel <version>.xltx** base template available on the Base Templates Reference Page. This file is set with the workbooks and structure required for creating Excel reports that contain queries.

You can create a file based on **Report - Excel <version>.xltx** and save it to the Template Library to use as a base template for similar reports. However, in doing so:

- Do not delete, insert, or rearrange the data columns on the data worksheets. The column structure on these worksheets must match that of their queries. Rewrite queries to match the data worksheets.
- Do not add Excel pivot tables or other sets of data to the data worksheets.

- Do not add formulas to the columns of the data tables on the data worksheets. You can add formulas to the columns to the right of the rightmost query-populated column. The import automatically propagates the formulas across the imported data.
- Include only numbers, letters, underscores, and periods in the heading of a formula column.
 Other characters cause an "Invalid Name" error when the workbook is opened in Accolade.

The information below describes how to add queries to an Excel file. For information about the Accolade query infrastructure, see the Queries Overview topic in the online Help.

Note: The queries that are available for selection are based on your access group permissions as defined in your user profile. Only queries that the user has "Can Edit" access for will be available for selection. Additionally, access group settings for the query must match the user permissions of other Process Designers in order to display for them.

To create an MS Excel report using a query:

Note: The following procedure assumes that you have created the appropriate queries for the report and that you are familiar with basic Excel functionality.

1. Add an Excel report to Accolade.

Select the queries to use in the report and select either the **Report - Excel <version>.xltx** file or a template based on it as the template file.

- 2. Click **Preview** to populate Accolade data into the file and save the preview file to your computer.
 - Save the file using a name that identifies the nature and purpose of the report. This is the file that becomes the template that is added back to the Template Library.
- 3. Check the first data worksheet to confirm that the data is what you want and to identify the cell range it occupies.
 - For the workbook to refresh correctly, the worksheet must contain at least two rows of data. If the query only retrieved one row, add a second row of data manually on the data worksheet and identify both rows in data ranges.
- 4. (Optional) To manipulate the data with formulas, add the formulas to the right or left of the table.
- Continue to format the workbook by inspecting the next data worksheet, adding a new worksheet, and creating a report. You can create one or more reports for each data worksheet in the workbook.
- 6. Hide the data worksheets and any other worksheets that users of the report should not modify.
- 7. Save the completed Excel workbook to your computer and add the template to the Template Library.
- 8. From the **System** menu, select **Content Sources > Charts & Reports Manager**, and click the name of the report you created in step 1.
- 9. In the **Template** field, select the MS Excel file you added to the Template Library in step 8.
- 10. Click **Update** to save the changes to the report.

• When a query refreshes the data set, it can retrieve more, or fewer *rows*, but it cannot retrieve a different number of *columns* from the database.

Creating MS Excel Reports in Project Currencies

By default, currency values included in MS Excel reports are shown in the corporate currency. However, some projects may track their values in a local currency that is different than the corporate currency. To convert values into the project currency, use the **Currency Report Template <version>.xltm** base template available on the Base Templates Reference Page, or in the Template Library, as a starting point to build the report.

Note: The information in this topic details how to create MS Excel reports if your currencies are defined using the general currency conversions and Corporate Currency system parameter method. If you use the recommended date-specific currency conversions method, you can create a report in a project currency using calculations based on the metrics defined to capture the project's currently selected currency. Before creating a report that uses a project's currency, define the currency conversions.

To add a currency conversion to a project report template, add a conversion table to a worksheet within the file and set cross references from the report cells to the conversions. You can also select the format in which currencies display.

Note: An Administrator or Process Designer must also have All Rights to Reporting for access to create the Accolade Office Extensions report using the currency conversions reference table.

To create an MS Excel report in a project's currency:

Note: The procedure below assumes that you have Accolade Office Extensions installed.

- 1. Save the **Currency Report Template <version>.xltm** file to your computer and open the file in Excel.
- 2. Within Accolade Office Extensions, click Data Reports and click Add New to add a report.
- 3. Select the **Reference Tables** subject.
- 4. Select **Currency Conversions** from the **Available Reference Tables** list, and select to include the **Currency Code** and **Conversion Factor** columns in the table.
 - These two columns enable you to select the correct conversion factor to convert the corporate currency values in the database into the project currency values you want to display in the report. You can select additional columns that may be helpful in identifying the currencies available.
- 5. Continue through the dialog options, select the worksheet and provide a table name that identifies the table as the currency conversion table, and click **Finish** to add the table.

- **P**
- Conversion tables are typically included on a separate worksheet so you can hide the worksheet before adding the report template to the Template Library.
- 6. Create the rest of the report, including the currency metrics to convert.
- 7. In the cell where you want to convert a currency value, enter the following formula:

```
=ConvertToCurrency(cell, "code")
```

where

- cell is the reference to cell containing the value to convert
- code is the three-digit currency code of the currency to convert to. The code must be contained in quotes.

For example, =ConvertToCurrency (A2, "JPY") to convert the currency from the corporate currency to Japanese Yen.

- \mathbf{Q}
- To format the value, see the procedure below.
- 8. Copy the formula down the right side of the table to every row containing values to be converted to the project currency and hide the column that contains the values to be converted.
 - Adding the formulas to the column to the right of the column containing the corporate currency values leaves the column of converted values in the original position of the now hidden column
- 9. Save the file with a name that clearly identifies the nature and purpose of the report.
- 10. Add the file to the Template Library.

To format a currency value in an MS Excel report:

- 1. Open a report that contains a currency conversion table (as created in the procedure above).
- 2. Open the Accolade menu in the MS Excel ribbon, select the conversion table you created in the procedure above and click **Modify**.
- 3. Select to include Format 1 and Format 2 and click Finish.
- 4. In the cells that contain the =ConvertToCurrency(cell, "code") formula (see step 6 above), add the format column heading parameter.

```
=ConvertToCurrency(cell, "code", "format column heading")
```

This parameter is either Format1 or Format2 in the Currency Conversion table you modified in step 3 that contains the numeric format to display.





Note the formula displayed in the formula field.

5. Save the file and add it to the Template Library.

Adding Excel Report Templates to Accolade

For an Excel report to be viewable in the **Charts & Reports** page or in projects within Accolade, an Administrator or Process Designer must add the report to Accolade.

To add an Excel report to Accolade:

Note: You must have a report template with the type Spreadsheet Report saved in the Template Library prior to adding an Excel report using the instructions below.

- From the System menu, select Content Sources > Charts & Reports Manager.
 To narrow the list, search by the report name or category.
- 2. Do one of the following:
 - . To add a new report Click Add New and select MS Excel Report from the drop-down list.
 - To edit an existing report Click the name of the report to open it for editing.
- 3. Complete the following information to identify and describe the report:

Required fields display with **red** text and an asterisk * if the field is empty.

Field	Description
Name	Enter a name, up to 64 characters long, which identifies the report.
System Name	Enter a unique, shorter name that identifies the report in queries, reporting views, field codes, and other places in Accolade.
	The name must be unique among reports, and can contain only letters (English alphabet), numbers, and the underscore.
Description	Enter a description of the purpose or nature of the report.
	This description helps other users identify the report throughout the system.
Category	Enter or select the group to which this report belongs.
	Use categories to organize like reports together. For example, if there is a large number of financial reports, a Project Manager can use a category selection to locate only financial reports.
	 Leave this field blank to add to the Default category.
	 To define a new category, select New Category and enter the category name.
	 To delete a category, remove every item from the category. Empty categories are deleted automatically.
Query	If the report is created using the Accolade query infrastructure, select up to five queries to create tables in the report.

Field	Description
	Each query copies its data to the indicated Excel worksheet.
Configuration Access	Select the access groups to which the report belongs.
Groups	Process Designers with matching permissions will be able to edit and view the report. The access groups displayed are based on the current user's access group permissions and the access groups the report belongs to.
Process Model Usage	Click the Process Model Usage button to see a list of process models that the MS Excel report is associated with.
	The list includes all process models the report is included in, as well as links to the process model's component tree pages you have Edit access to.
Active In	Select where the report is available within Accolade.
	Charts & Reports - Displays the report on the Charts & Reports page. Clicking this check box places the report in the Shared Charts & Reports section of the Charts & Reports page. If unchecked, the report will only be available to the assigned owners in their My Charts & Reports section.
	 Projects - Displays the report within a project. Clicking this check box will make the report available for association with a process model.
	If the report is not ready for viewing, clear all the check boxes.
Template	Select the file from the Template Library that serves as the basis for the report.
Roles	Select the system user roles that have access to view the report.
	Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the report on the Charts & Reports page, as well as select to receive the report through an email if the report is available for notifications.

4. Click **Create** to create a new report or **Apply** to save changes to an existing report.

Notes:

• To delete an Excel report, display the report from the Charts & Reports page, click to display the report settings, and click Delete at the bottom of the page. Only the report owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the report. Deleting a report does not delete the query or the file in the Template Library on which the report is based. To remove a report from view

but keep its definition for use later, clear the selections in the Active in field.

 Categories created for queries, HTML reports, or MS Excel reports are saved in common and apply to all three. To remove a category from the list, ensure that no queries, HTML reports, or MS Excel reports are assigned to the category.

Setting Custom Excel Report Template Properties

Using the Accolade Office Extensions add-in to create Excel reports, you can add and modify custom properties based on your report and template needs. Use the custom Excel document properties described below for Excel reports attached to a deliverable or activity or available from the **Charts & Reports** page. Custom properties include how data is refreshed, server information, and where log files are saved.

Note: Accolade does not refresh the data for non-document owners, regardless of the settings in the file.

Refresh on Open

Microsoft templates contain a custom property, **SGM_SYS_RefreshOnOpen**, which determines how the document's content is refreshed when it is opened in Accolade.

If the report is used as a template in a deliverable or activity, when a document owner downloads the template from the Deliverable or Activity dialog within a project, the data is refreshed, regardless of the **SGM_SYS_RefreshOnOpen** setting. For document versions, document owners are prompted to refresh the data.

To set the refresh on open properties in an Excel report template:

- 1. Create the Excel report template and save it to Accolade.
- 2. Download the document and open it in Excel.
 - Downloading the document from Accolade saves Accolade-specific properties to the document.
- 3. Display the document's advanced properties.
 - How to display the advanced properties varies across applications and versions. Typically, property options are located under the **File** menu. Refer to the Excel online Help for the specific location in the version you are using.
- 4. In the Properties dialog box, click the **Custom** tab.
- 5. From the properties list, select **SGM_SYS_RefreshOnOpen**.
- 6. In the **Value** field, enter one of the following options:
 - ALWAYS Refreshes the template automatically on open from Charts & Reports.
 - **PROMPT** Displays a prompt to select whether to refresh the data.
- 7. Save the template and add it to the Template Library.

Refresh Fields on Worksheets

Add the custom **SGM_RefreshFieldsOnWorksheet** property to an Excel report template to specify which worksheets are scanned for Accolade field codes. Specifying worksheets using this parameter can improve the performance of large reports.

To set which worksheets to scan for field code refresh:

- 1. Create the Excel report template and save it to Accolade.
- 2. Download the document and open it in Excel.
 - Downloading the document from Accolade saves Accolade-specific properties to the document.
- 3. Display the document's advanced properties.
 - How to display the advanced properties varies across applications and versions. Typically, property options are located under the **File** menu. Refer to the Excel online Help for the specific location in the version you are using.
- 4. In the Properties dialog box, click the **Custom** tab.
- 5. In the Name field, enter the case sensitive name SGM_RefreshFieldsOnWorksheet.
- 6. From the Type list, select Text.
- 7. In the **Value** field, enter the names of the worksheets that contain Accolade field codes, separating the names with a backslash (\).
- 8. Click Add.
- 9. Save the template and add it to the Template Library.

Enable Output Log Files

Add the custom **SGM_LOG_DIRECTORY** property to an Excel report template to create an output file that collects log files from the Accolade Office Extensions add-in. Use the generated logs file when troubleshooting server call issues.

- 1. Create the Excel report template and save it to Accolade.
- 2. Download the document and open it in Excel.
 - Downloading the document from Accolade saves Accolade-specific properties to the document.
- 3. Display the document's advanced properties.
- 4. In the Properties dialog box, click the Custom tab.
- 5. In the **Name** field, enter the case sensitive name **SGM_LOG_DIRECTORY**.
- 6. From the **Type** list, select **Text**.
- 7. In the Value field, enter a file folder path where the logs will collect.
- 8. Click Add.
- 9. Save the template and add it to the Template Library. Save the workbook with the added custom property to enable the add-in to collect logs to the specified directly.
 - To disable the add-in from collecting logs, remove the custom property and save the workbook.

Creating Macros for Microsoft Document Events

Several events exist for Microsoft documents when users have installed Accolade Office Extensions. Administrators and Process Designers can write macros that these events call to add additional functionality to respond to the events.

Using these macros requires that you create a module named SGMEvents in the document.

- SGMRefreshStarted Called after the Refresh Data From Server command has been clicked.
 Public Sub SGMRefreshStarted ()
- SGMRefreshComplete Called after all tables and charts have been refreshed.
 Public Sub SGMRefreshComplete()
- SGMTableRefreshStarted Called after user clicks Save after modifying a table.
 Public Sub SGMTableRefreshStarted (Optional sTableRangeName as string)
- SGMTableRefreshComplete Called after a single table is refreshed. And called again after all tables are refreshed.

Public Sub SGMTableRefreshComplete (Optional sTableRangeName As String)

Exercises - Creating Online Reports

Try out what you have learned!



- Open MS Excel and use Accolade Office Extensions to create a report that includes all open projects that started after a date of your choosing. Use the Projects subject to select the columns to include, including a filter on Project Start Date.
- Set the report to sort with the newest projects created first.
- Save the file and add it to the Template Library in Accolade.

Creating HTML Reports

An HTML report uses a single SQL query to gather data and can be accessible from the **Charts & Reports** page or from within a project. Users who have the role assignment selected in the report can also select to receive the report in the body of an email.



Use the **Report Privacy Warning Text** system parameter to add a notification within the report to indicate the content is private or confidential, and should not be forwarded to others.

Consider the following when designing HTML reports:

 An HTML report displayed on the Charts & Reports page may display information about multiple projects. That same report displayed within a project contains only the data for that project. Data that is not project-related is displayed the same in both locations.

- HTML reports can range in size. Ensure your company's email server accommodates the file size and volume required to send required reports to all the selected users
- HTML reports display in a set, non-editable format. To create a report using formatting, create an MS Excel report and format it as necessary.

Prior to creating an HTML report, create and save the SQL Query on which the HTML report is based.

Note: The queries that are available for selection are based on your access group permissions as defined in your user profile. Only queries that the user has "Can Edit" access for will be available for selection. Additionally, access group settings for the query must match the user permissions of other Process Designers in order to display for them.

To create an HTML report:

- From the System menu, select Content Sources > Charts & Reports Manager.
 To narrow the list, search by the report name or category.
- 2. Do one of the following:
 - To add a new report Click Add New and select HTML Report from the drop-down list.
 - To edit an existing report Click the name of the report to edit and click
 to edit the report details.
- 3. Complete the following information to identify and define the data included in the report:

Required fields display with **red** text and an asterisk * if the field is empty.

Field	Description
Name	Enter a name, up to 64 characters long, which identifies the report.
System Name	Enter a unique, shorter name that identifies the report in queries, reporting views, field codes, and other places in Accolade.
	The name must be unique among reports, and can contain only letters (English alphabet), numbers, and the underscore.
Description	Enter a description of the purpose or nature of the report.
	This description helps other users identify the report throughout the system.
Category	Enter or select the group to which this report belongs.
	Use categories to organize like reports together. For example, if there are a large number of reports that the IT department uses to track user logins, use a category to group those reports together.
	Leave this field blank to add to the Default category.
	To define a new category, select New Category and enter the category name.
	To delete a category, remove every item from the category.

Field	Description
	Empty categories are deleted automatically.
Query	Select a saved query.
	The report displays data gathered from the database for the defined query.
	When defining the query for the report, using LinkableName instead of the ProjectName column makes the project's name a hyperlink to the project from the generated email.
Notification	Select the Notifications option from the following:
	Hide - The report is not available for selection on the My Profile page.
	Show - Displays the report as an option to schedule, share, or receive immediately on the My Profile page for users with the roles selected in the Roles field.
	Required - Makes the report required and lists it on the My Profile page for users with the roles selected in the Roles field. Select the days of the week that the report is sent to the selected users. Users can modify the day selections or choose to not receive required reports on their My Profile page.
Configuration	Select the access groups to which the report belongs.
Access Groups	Process Designers with matching permissions will be able to edit and view the report. The access groups displayed are based on the current user's access group permissions and the access groups the report belongs to.
Process Model Usage	Click the Process Model Usage button to see a list of process models that the HTML report is associated with.
	The list includes all process models the report is included in, as well as links to the process model's component tree pages you have Edit access to.
Active In	Select where the report is available within Accolade.
	 Charts & Reports - Displays the report on the Charts & Reports page. Clicking this check box will place the report in the Shared Charts & Reports section of the Charts & Reports page. If unchecked, the report will only be available to the assigned owners in their My Charts & Reports section. Projects - Displays the report within a project. For a report to be available for association with a process model, it must be
	active in projects.
	If the report is not ready for viewing, clear all the check boxes.

Field	Description
Transpose	Select the check box to display reports that contain only one project as a vertical column rather than a row.
	If you select to transpose a report that contains reports for multiple projects, the transposed result displays data for only the first project in the report.
Roles	Select the system user roles that have access to view the report. Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the report on the Charts & Reports page, as well as select to receive the report through an email if the report is available for notifications.

- 4. Click in the Report Details to ensure the report pulls the correct data and is working as you intended. Click to return to the Report Details after previewing the report.
- 5. Click **Create** to create the new report or **Apply** to save changes to an existing report.

- To display an HTML report within a project, the report must added at the process model level, either by adding it to the Reports List pod, or by adding it to a pod within a layout that is assigned to the process model.
- To delete an HTML report, display the report from the **Charts & Reports** page, click to display the report settings, and click **Delete** at the bottom of the page. Only the report owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the report. Deleting a report does not delete the query on which the report is based. To remove a report from view but keep its definition for use later, clear the selections in the **Active in** field.
- Categories created for queries, HTML reports, or MS Excel reports are saved in common and apply to all three. To remove a category from the list, ensure that no queries, HTML reports, or MS Excel reports are assigned to the category.

Viewing Charts and Reports in Accolade

Reporting in Accolade provides a means to summarize and analyze project and other data within your database in a format and manner that is most applicable to your organization and data needs.

Charts and reports displayed at a system-level allow users to analyze and compare projects across a portfolio, while charts and reports displayed at a project-level allow users to summarize a single project's status and relevant information.

For example, consider a report or chart that contains various project details for every project in the system. When displayed at a global level, either on the **Charts & Reports** page or in a page layout displayed as a global link, it displays the details for all included projects. When displayed at a project level, in a project page layout, it only displays the given project details.

Viewing System-Level Charts or Reports

The **Charts & Reports** page provides a single location for accessing and viewing online reports and charts within Accolade. Users must have Refresh Workbook Data or All Reporting Rights to view an online report or chart.

The **Charts & Reports** page is organized into two sections to help users quickly navigate to their information:

• My Charts & Reports: Items that appear here are considered private. You must be assigned as an owner of the chart or report, and it is not marked on the configuration side as **Available**.

Note: An assigned owner with All Reporting Rights can view, update, delete, or add additional owners to the chart or report. An assigned owner who has Refresh Workbook Data rights will only be able to view the chart or report.

Shared Charts & Reports: Items that appear here are considered public. They are available for
users to view if the chart or report is marked on the configuration side as Available. If the item is
restricted to specific roles, users must also have a matching system user role assigned.

Important! The reports that display for selection are based on your access group permissions as defined in your user profile.

Note: Charts and reports that are included in a page layout can also be viewed within a global link, if they are included in your company's configuration.

To view an available chart or report:

1. From the System menu, select Content Sources > Charts & Reports Manager.

Note: Process Designers can also create or edit charts, reports, and related configuration by navigating to the **System** menu and selecting **Content Sources > Charts & Reports Manager**.

2. Click the name of the chart or report you want to view.

To narrow the list, search by name or category.

3. (Optional, as available and applies to reports only) Click in the upper right corner to download the current version of the report.

Viewing Project-Level Charts or Reports

In addition to viewing system-wide information in the charts and reports available on the **Charts & Reports** page, Administrators and Process Designers can associate charts and reports with a process model to display data within a project. When viewed through a project, only data that pertains to that project displays in the chart or report, unless **Override project filtering** is set in the report configuration.

Charts and reports can be displayed in a project by two different methods:

Displayed on the project using a Report List pod on a layout - MS Excel or HTML reports are
configured in the pod's advanced settings. Users with appropriate rights can click on a report
name to open it for viewing or downloading, depending on the report's configuration.



Click on the Report List pod on the layout to print the list of charts and reports that display.

Added to a project page layout - HTML reports, online reports, and charts created from online
report data can be added to a page layout that is associated with the process model, and can be
accessed by opening the related custom page in the project's page list. This method of displaying
a report allows users to view multiple data sources at one time, and to apply runtime filters in
order to filter the project information displayed in the charts and/or reports.

Applying Runtime Filters to Charts or Reports

Users can apply runtime filters to charts or reports that are displayed within a page layout that is used as a project page or as a global link. Filters can be used to further modify the data displayed without making adjustments to the original data source, allowing users flexibility to display the information that is relevant to their role.

Runtime filters can be selected and applied either to a single report or chart, or to all charts and reports that are displayed in the layout.



In order to apply runtime filters, the selected reports must be set up with filters that have runtime filtering enabled, and the selected charts must be created from an online report with filters that have runtime filtering enabled.

To apply filtering to an individual chart or report on a layout:

- Display the layout that contains the chart or report to be filtered.
 Each chart or report lists the runtime filters that are currently applied.
- 2. Click $\overline{\mathbf{Y}}$ in the upper right corner of the chart or report to open the Report Filters dialog box.

The filter categories applied to the selection will appear in the list. If the selection does not have runtime filters configured, the message "No filters have been defined" will display in the dialog.

3. For each filter row, enter the value to apply as filter criteria.

Important! A value must be defined for all filters in the dialog box. If you do not wish to apply a particular filter, you will need to set its value to something that will not cause data to be filtered out.

- 4. Click Apply to apply the filters and refresh the data displayed.
- 5. (Optional, as available and applies to reports only) Click in the upper right corner to download the current version of a report.

To apply filtering to all charts and reports on a layout:

Note: Enable layout filters must be selected on the layout configuration in order to use this process to apply runtime filters to all charts or reports in a layout.

1. Display the layout that contains the charts or reports to be filtered.

Page Filters appears in the upper left corner, along with a list of the filters that are currently applied to all charts and reports on the layout. In addition, each chart or report lists any unique runtime filters that are currently applied.

2. Click 7 to open the Page Filters dialog box.

In order to be available to apply to the layout, filter categories must be included in the configuration for all charts and reports on the layout.

If the selection does not have runtime filters configured, the message "No filters have been defined" will display in the dialog.

3. For each filter row, enter the value to apply as filter criteria.

Important! A value must be defined for all filters in the dialog box. If you do not wish to apply a particular filter, you will need to set its value to something that will not cause data to be filtered out.

- 4. Click **Apply** to apply the filters and refresh the data displayed.
- 5. (Optional, as available and applies to reports only) Click in the upper right corner to download the current version of a report.

Using Accolade Tools to Interact With Online Reports

Access the enhanced search, filter, and sort capabilities in Accolade's Charts and Reports section. These enhancements allow users to search, filter, sort, and hide/show columns in reports in a more efficient way and organize pertinent information quickly.

Note: Refreshing the page will reset any filters or sorting.

To column filter all charts and reports in Accolade

- Access the new icon that is located in the column header that will allow users to select filtering
 options, using checkboxes, to apply to their report search.
- Utilize the newest search functionality that allows users to find filtering options to apply.
- Use the new icon located at the top right of the report to remove any filters applied to the report.

To search all charts and reports in Accolade

- Select the Search Bar at the top-right corner of the report to keyword search within the report.
 - Note: The keyword search is not case sensitive.
- Click the X icon in the Search Bar to clear the keyword search data.

To show/hide columns in Accolade

- Select the icon displayed in the top-right corner of the report to show or hide columns within that report.
- Uncheck the box next to the column name and click the Apply button to hide the column.

To effectively control columns widths in Accolade

- Hover over the header bar in the report to see the lines separating each column. Users can now click and drag to expand or minimize that specific column.
- Double click the line separating each column to set the column back to the original size (Auto-Sizing).
- Display full text contents of the cell by clicking onto that specific cell when the text is truncated due to the smaller size of the column.

To interactively sort all charts and reports in Accolade

- Click on any column header in the report to sort the report based on the data within that column.
- Clicking once on a column will sort in ascending order, clicking twice will sort in descending order, and clicking a third time will revert to the default report sort order.
- Click on the **Save Preferences** icon in the top-right of the report to save your column widths and hidden columns.

- Accolade data is automatically refreshed with current values each time you open a chart or report.
- To clear the current values set for a runtime filter, click \(\text{ to open the Report Filters} \)
 dialog and click \(\text{ in the corresponding filter row.} \) This sets the filter back to the default settings as defined at the chart level.
- Filter icon will not appear if there are no filters available for users to apply.
- From the Charts & Reports page, you can send an HTML report via email directly to yourself or to others. Click the name to display the report, and click in the upper right corner. In the dialog, select the users you want to send the report to and click Done.
 Accolade sends a copy of the report to you and the selected users with the same data that displays to you. If there is sensitive data in the report, take caution in sending it to others.
- If you have Accolade Office Extensions installed on your computer, you can save an MS
 Excel report to your computer and then refresh its Accolade data without starting
 Accolade.
- To explore "what if" scenarios, save an MS Excel report to your computer, unhide the data
 worksheets if necessary, modify the data, and then observe the effect of the changes on
 the charts and reports in that workbook. Scenarios can also be created using a report's
 filter options.

