Milestone Features

New Features in Milestone Releases

List of New Features in Actuate 11 Milestones 1-6

Actuate 11 provides a comprehensive platform from which organizations can, in a robust and cost-effective fashion, deliver compelling BI and reporting applications that engage users, improve efficiency, reduce costs and create competitive advantages. Actuate is the only RIA-ready platform that can simultaneously grow and evolve to continually meet the changing information needs of every user.

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What's new in Milestones 1-6

This document lists the new features in Actuate 11 Milestones 1-6 and will be subsequently updated as more milestones are released. Please contact beta@actuate.com for any feedback/questions related to these features.

Actuate BIRT Interactive Viewer

Actuate 11 introduces interactivity on crosstab components included in BIRT reports. End users can now personalize the look and feel of crosstab components by modifying the format and alignment properties.

Additional analysis capability on the crosstab component is available by using the Actuate BIRT Data Analyzer tool described in the next section.

Performance

The Interactive Viewer in Actuate 11 is faster than ever before. This is made possible by implementing a new meta-data caching capability and an on-demand resource loading framework.

Actuate BIRT Data Analyzer

Actuate 11 introduces a revolutionary new BIRT based analysis tool that dramatically simplifies data analysis and thereby empowers users with a varying level of skills to analyze data for better decision making. The BIRT Data Analyzer is a zero footprint browser based tool to analyze personalized cubes embedded in the BIRT report itself. The highly intuitive analysis interface combined with the highly scalable reach of a BIRT report makes it possible for organizations to deploy analysis capability to users at all level in the organization.

Following crosstab operations are available in the current milestone:

- Add, modify or remove dimensions
- Add, modify or remove measures
- Change the order of dimensions and measures

BIRT Report Studio

Safari browser support

In response to the market demand to enable Apple Mac users to consume BIRT based content, all Actuate BIRT web based products will support the Mac Safari browser in Actuate 11.

Support Top/Bottom-N filter within groups

Actuate 11 improves the filter support in BIRT Report Studio by enabling Report Designers to insert Top N/Bottom N filters both at the overall table level as well as individual group levels.

With this powerful capability, report designers can build reports that can answer questions such as “List top 5 cities in the world by population”, “List top 3 cities of each country by population” etc.

Milestone Notes: *In the current Milestone, this capability can only be invoked from the filter dialog. In future milestones this will also be available via the right-click option.*

Ability to aggregate computed columns

In Actuate 11, aggregation support has been added to calculated columns. Report designers can now summarize computed columns using any of the supported aggregate functions.

Actuate BIRT Technology

WYSIWYG Report Design Experience

Actuate 11 delivers true WYSIWYG (What You See Is What You Get) report design experience to the BIRT report designer. This enhancement greatly improves the productivity and report development efficiency of the report developer and hence, brings about significant cost savings by lowering the report development and maintenance costs.

The report developer does not need to modify his report designs repeatedly so that the desired report layout is achieved in all the various output formats. When the fixed layout preference is chosen, the layout of the BIRT report output will be similar irrespective of the fact whether the report is viewed on the web or printed in the PDF format.

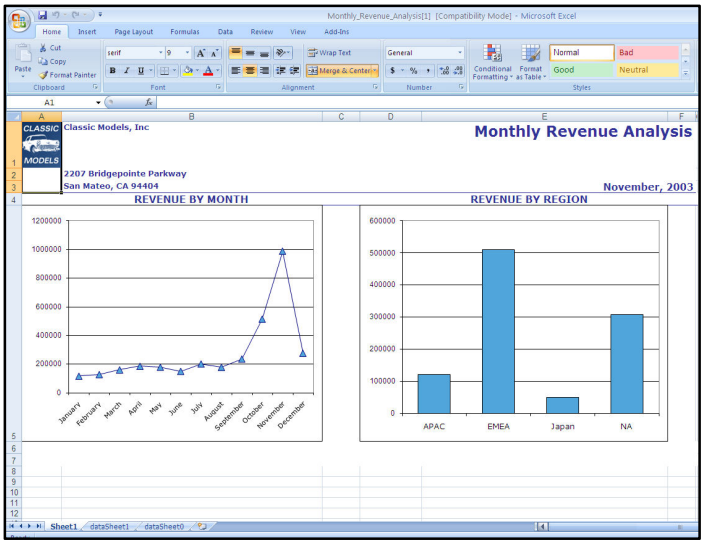
Furthermore, the layout of the report output will be consistent with the layout that the report developer sees in the design pane of the report designer. The report developer can visualize the layout of the report output within the designer’s layout pane and hence, can easily create the report layout according to the needs of the report consumers. This eliminates any iteration of layout inconsistencies and subsequent modifications between the report users and the report developers. Hence, the report developer can deliver the appropriate report layout the first time around.

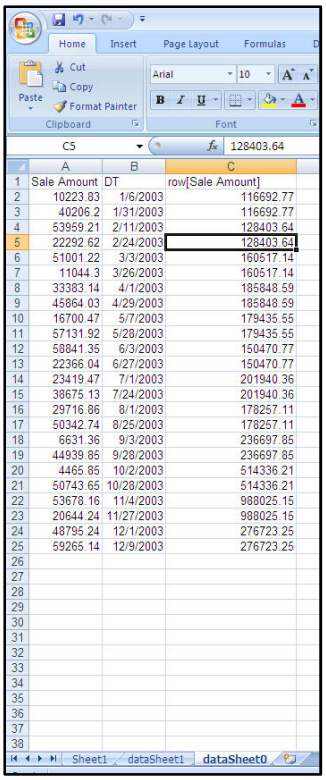
Export BIRT report to “live” Excel spreadsheets

In Actuate 11, the Excel emitter has been enhanced to create analysis-ready “live” Excel spreadsheets. This would enable report consumers to perform “what-if” analysis on the exported Excel spreadsheet. The following are the enhanced capabilities of the Excel emitter:-

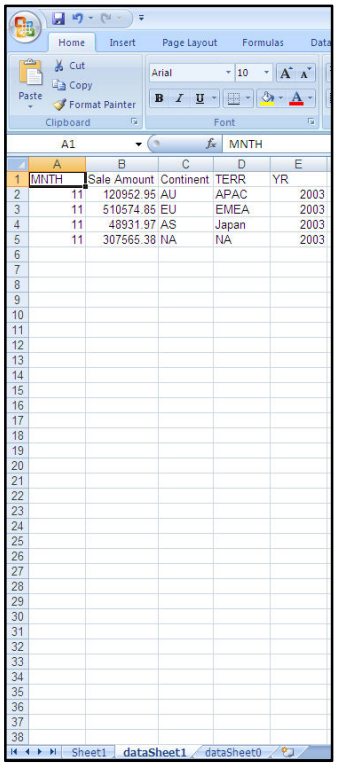
- **Export BIRT charts as editable charts in Excel -** BIRT charts would be converted to live charts with an associated data sheet containing the underlying data. Hence, report consumers can alter the data in the exported data sheet and instantly see the result of their analysis in the charts.

  Here is an example of a BIRT chart exported as a “live” chart (with the associated data sheets) in Excel:-





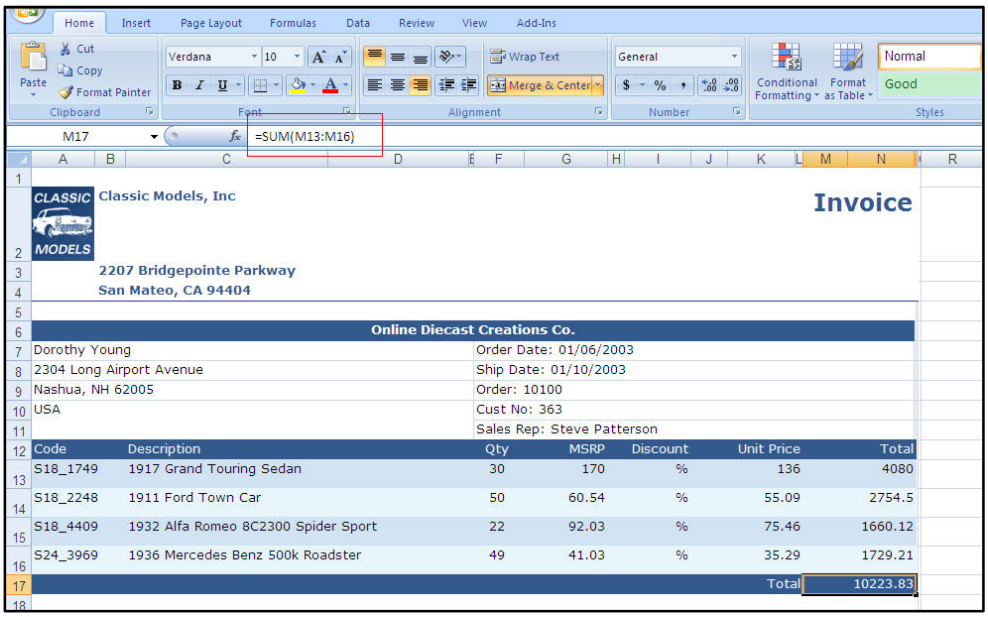
	Sale Amount	DT	row[Sale Amount]
2	10223.83	1/6/2003	116692.77
3	40206.2	1/31/2003	116692.77
4	53959.21	2/11/2003	128403.64
5	22292.62	2/24/2003	128403.64
6	51001.22	3/3/2003	160517.14
7	11044.3	3/26/2003	160517.14
8	33383.14	4/1/2003	185848.59
9	45864.03	4/29/2003	185848.59
10	16700.47	5/7/2003	179435.55
11	57131.92	5/28/2003	179435.55
12	58841.35	6/3/2003	150470.77
13	22366.04	6/27/2003	150470.77
14	23419.47	7/1/2003	201940.36
15	38675.13	7/24/2003	201940.36
16	29716.86	8/1/2003	178257.11
17	50342.74	8/25/2003	178257.11
18	6631.36	9/3/2003	236697.85
19	44939.85	9/28/2003	236697.85
20	4465.85	10/2/2003	514336.21
21	50743.65	10/28/2003	514336.21
22	53678.16	11/4/2003	988025.15
23	20644.24	11/27/2003	988025.15
24	48795.24	12/1/2003	276723.25
25	59265.14	12/9/2003	276723.25



	MNTH	Sale Amount	Continent	TERR	YR
2	11	120952.95	AU	APAC	2003
3	11	510574.85	EU	EMEA	2003
4	11	48931.97	AS	Japan	2003
5	11	307565.38	NA	NA	2003

- **Export BIRT crosstabs to Pivot Tables in Excel –** BIRT crosstabs would be exported to pivot tables containing the underlying data for further analysis. The report consumer can choose to analyze the data based on different dimensions or alter the underlying data sheet to perform what-if analysis.
- **Maintain aggregations and calculations in Excel –** BIRT would export the aggregations as Excel functions and formulas so that users could instantly see the impact of their what-if analysis in the spreadsheet. Report developers can leverage a new Excel-like scripting language called EasyScript to create formulas and aggregations that would be converted to their corresponding functions in Excel.

Here is an example of an aggregation in BIRT being transformed to the corresponding function in Excel:-



- **Support for images in the Excel output -** The enhanced Excel emitter also adds support for images in the Excel output.

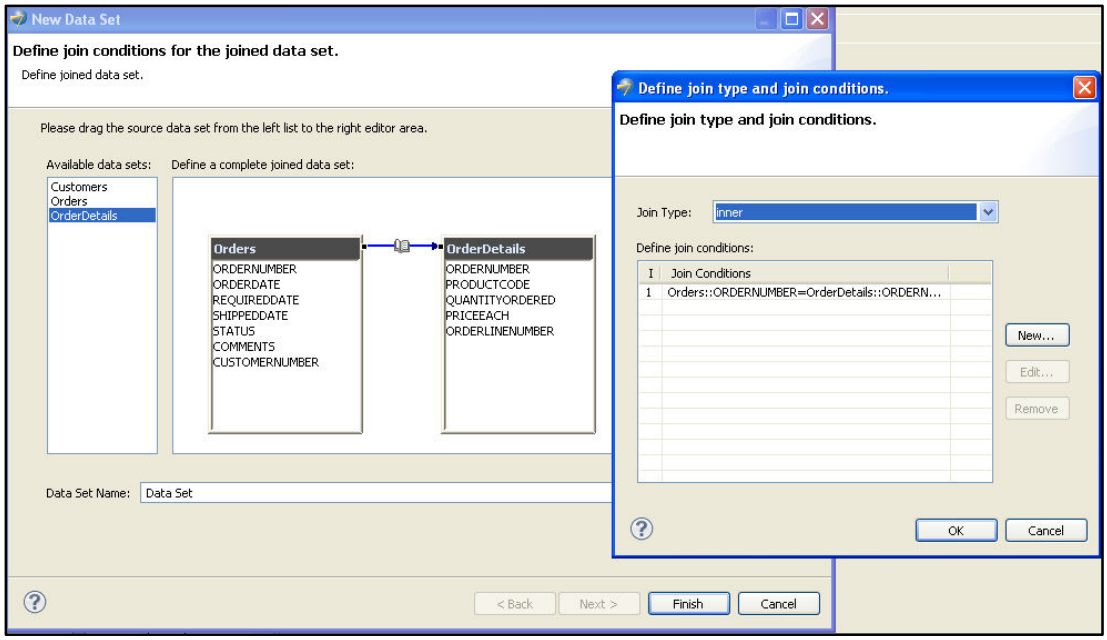
Milestone note: Support for transformation of computed columns to live formulas in Excel is planned for a subsequent milestone release.

Union of Data Sets and new Join Data Set capabilities

In Actuate 11, report developers can create a union of two or more data sets to create a data set similar to a UNION ALL construct in SQL. This union data set enables report developers to distill columns from multiple data sets into one data set and makes it easier to subsequently use the union data set in the report design.

The join data set provides a mechanism to combine data from different data sets which in turn could be derived from different data sources. In Actuate 11, the join data set has been enhanced to enable report developers to create join data sets using various join options. The supported join options are inner join, full outer join, left outer join, right outer join and side by side join. Hence, report developers can use the extensive join options to create appropriate join data sets as per the requirements of the report.

Here is the join data set builder to create and edit join data sets:-



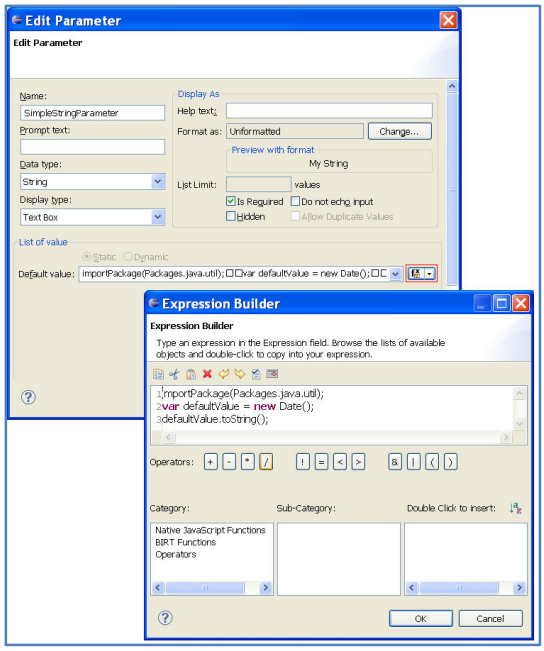
New ODA Driver for POJO Objects

POJO (Plain Old Java Objects) objects are commonly used along with infrastructure frameworks like Hibernate and Spring to create enterprise Java applications. Actuate 11 features a new POJO ODA driver which provides an intuitive and user-friendly interface to use POJO objects as data sources in BIRT reports. Report Developers no longer need to write custom code using the scripted data source to access POJO objects. The report developer can create method-to-column mappings at design-time and the ODA driver will handle the data retrieval from a POJO object graph and map it to data set rows.

Scripting for Default Parameter Values

In Actuate 11, report developers can use JavaScript to specify the default values of parameters. Hence, the default values of parameters can now also be scripted values in addition to static bindings.

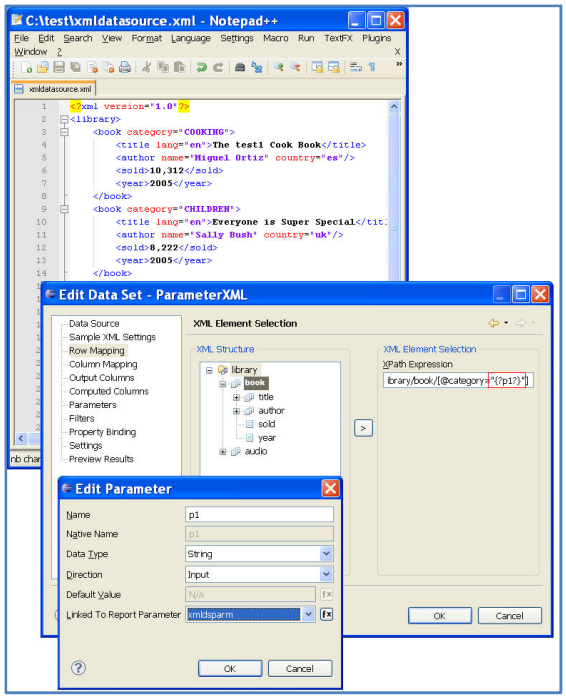
The report developer can leverage the Expression Builder to write JavaScript code to generate dynamic default parameter values, as shown below:



In addition to the default value expression shown above, two new events have been added to parameters that allow report developers to set the default selection list and values for a parameter within the script editor.

Parameters in XML Data Sources

In Actuate 11, the support for XML data sources has been enhanced by adding the ability to create new parameters and leverage existing data set parameters. This will enable the report developers to design reports that retrieve only the part of the complete input XML file that is required to generate the report.

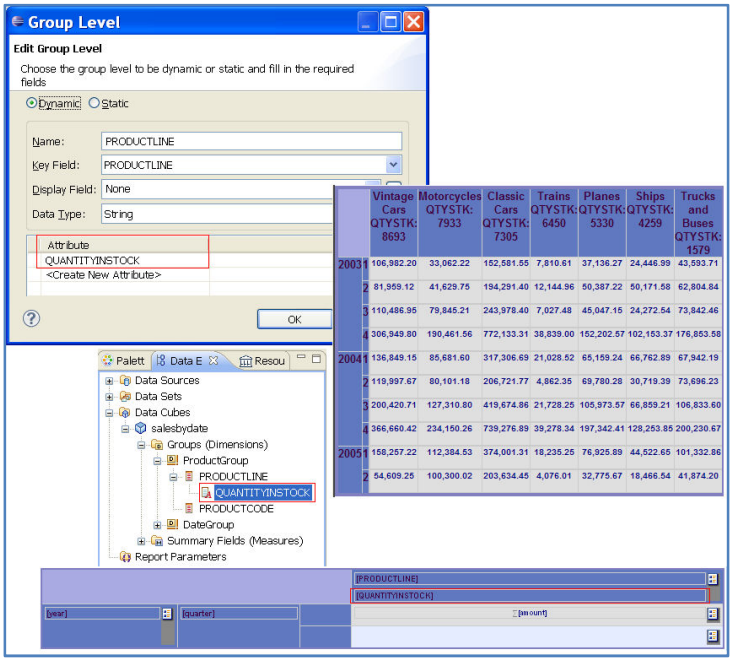


Milestone notes: *In future milestones, this capability will be enhanced to support referencing data set parameters using wizards without the need to write XPath syntax.*

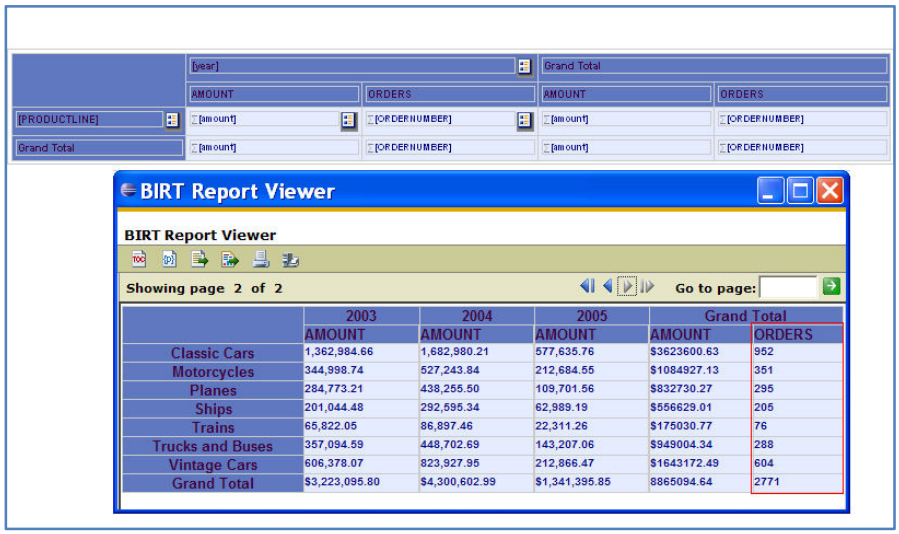
Crosstab improvements

In Actuate 11, there are several improvements to crosstabs:-

- **Dimension attributes –** The crosstab attributes are now visible in the Data Explorer view and hence, can be added directly to the crosstab.



- BIRT adds the ability to show crosstab totals without showing the detail values. The report developer can apply different visibility settings on the totals and the associated measure to achieve the desired effect.



	2003	2004	2005	Grand Total	
	AMOUNT	AMOUNT	AMOUNT	AMOUNT	ORDERS
Classic Cars	1,362,984.66	1,682,980.21	577,635.76	$3623600.63	952
Motorcycles	344,998.74	527,243.84	212,684.55	$1084927.13	351
Planes	284,773.21	438,255.50	109,701.56	$832730.27	295
Ships	201,044.48	292,595.34	62,989.19	$556629.01	205
Trains	65,822.05	86,897.46	22,311.26	$175030.77	76
Trucks and Buses	357,094.59	448,702.69	143,207.06	$949004.34	288
Vintage Cars	606,378.07	823,927.95	212,866.47	$1643172.49	604
Grand Total	$3,223,095.80	$4,300,602.99	$1,341,395.85	8865094.64	2771

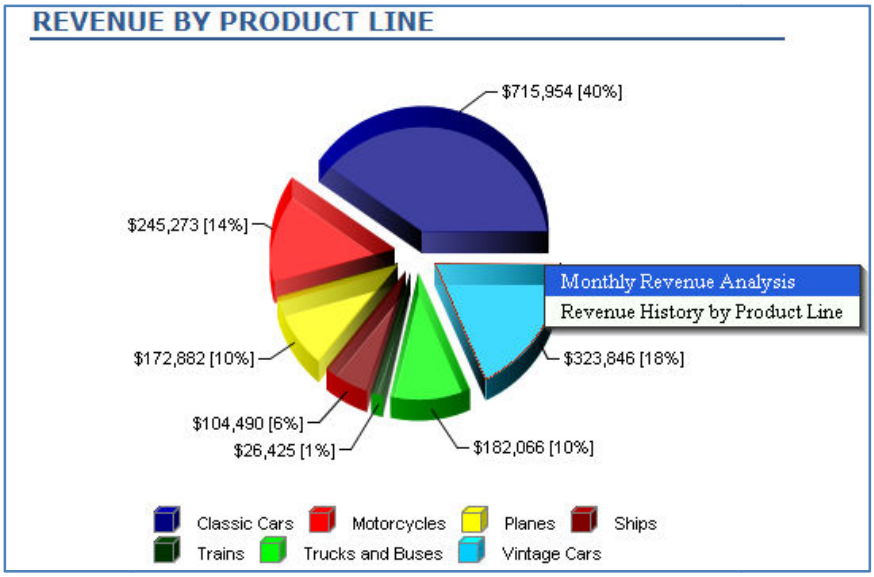
- **Create filter on any level in the cube –** In Actuate 11, report developers can create filters on any level in the cube, including those levels that have not been used in the crosstab.

Charting Improvements

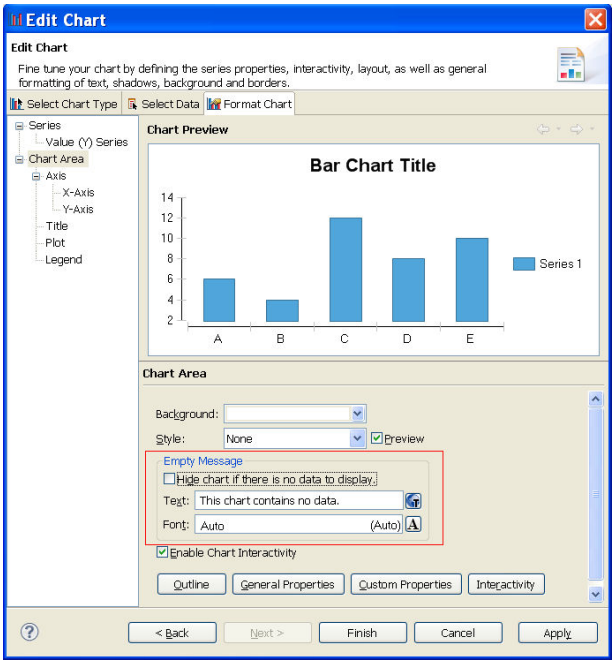
In Actuate 11, there are several improvements to the charting capabilities:-

- **Support multiple drill-through paths –** Report developers will be able to specify multiple drill-through paths for BIRT charts. This will enable them to provide multiple report analysis options to the report users.

  For Example, the pie-chart below is linked to the Monthly Revenue Analysis report and the Revenue History by Product line report.



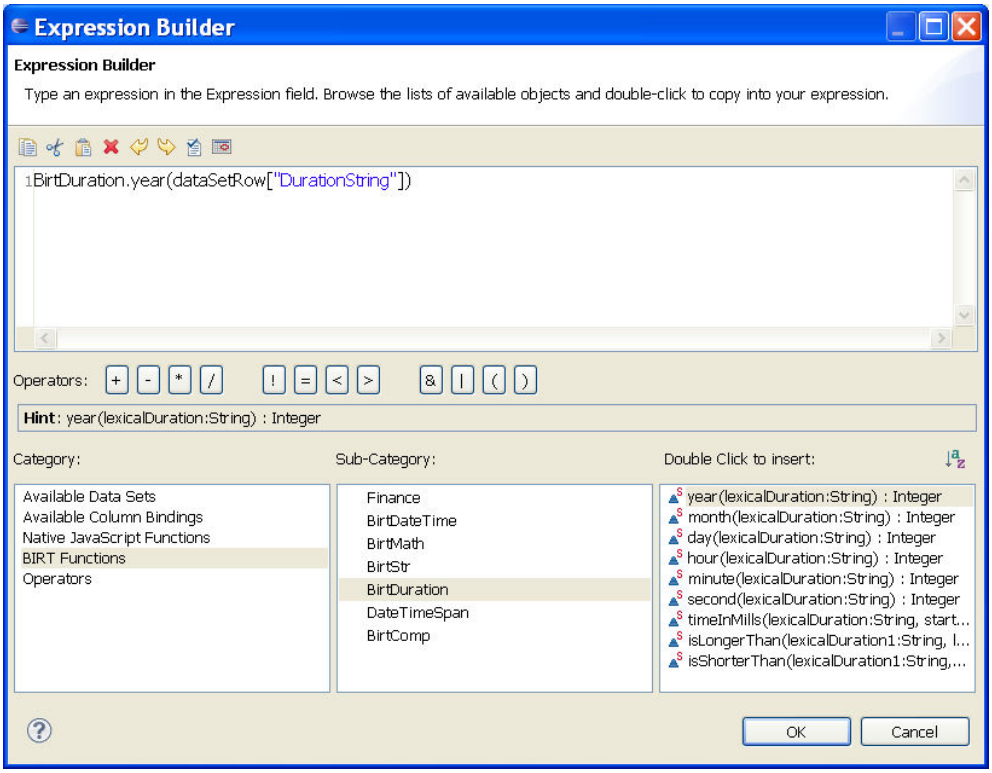
- **Ability to display messages for empty charts –** BIRT now provides the report developer with the ability to display messages in the chart output when no data is retrieved for a chart. This enhances the user experience for the BIRT report consumers as they would view meaningful messages rather than a blank report section.



Duration Script Functions

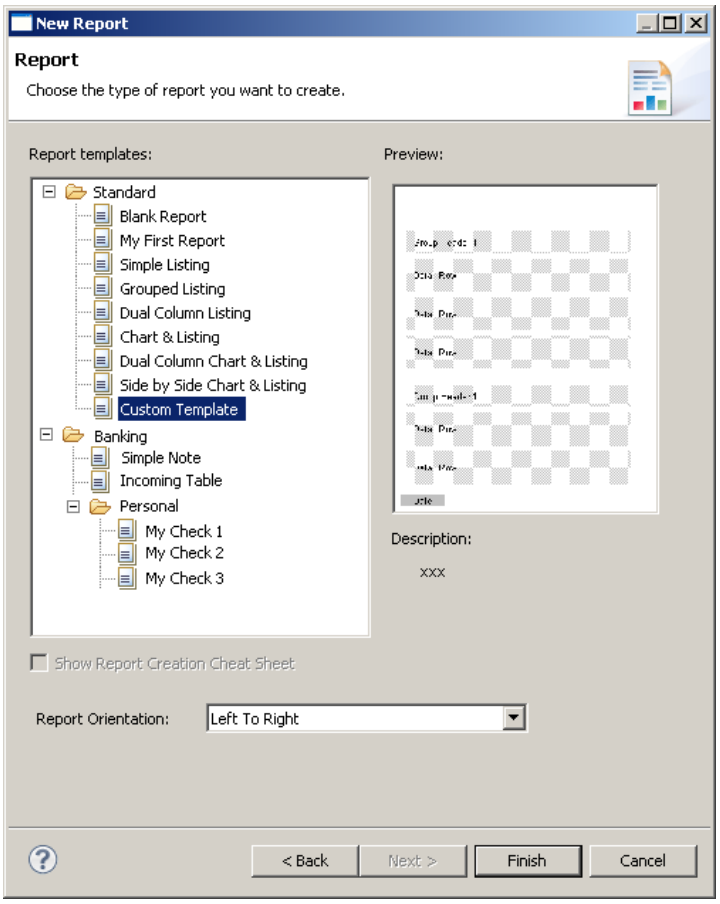
In Actuate 11, a new set of duration functions have been added to the set of out-of-the-box BIRT functions. The duration data type is a primitive data type for XML content and is used to represent data related to time intervals. These duration functions will enable report

developers to retrieve duration data from XML content, perform aggregations on them and use them in BIRT reports.



Report template extension support

Actuate 11 adds support for report template extensions that enables report developers to customize the report template list view. This extension point can be used by report developers to define a custom listing hierarchy to categorize the list of report templates by report domain, layout type etc. This capability enhances the report developer efficiency as the report developer can quickly access the desired report template by navigating through a categorized list rather than sifting through one flat list of report templates.



Improved Report Development Experience

In Actuate 11, there are several new features to enhance the development experience of the report developer.

- **Pasting Formatted Text –** Report developers can directly copy-and-paste formatted text (RTF or HTML) from word processors to a BIRT text element. This enables report developers to quickly transfer content from other word processing tools to BIRT without the need to re-format that content again to achieve the desired output.
- **Improvements in setting a Resource Folder -** The design time preference for the resource folder has been enhanced to support setting this folder to either a workspace folder, system folder or an Eclipse variable.
- **Reset Style changes to default settings –** Report developers can quickly reset the style changes back to the default settings by clicking on the Default button in the Property Editor.
- **Style Editor Enhancements –** The Style editor highlights the style properties that have been changed from the default options. The report developer can also revert to the default settings by clicking on the “Restore Defaults” button.
- **Independent Locale Formatting –** Report developers can specify the locale for a data item which is independent of the locale that is applied on the rest of the report. This capability enables report developers to design reports with report data items that are formatted according to a pre-designated locale. Hence, this feature

is very useful for cases where report items need to be presented in the same data format across the world irrespective of the locale of the report consumer.

Actuate Information Object Designer

Improved Filtering Capability in IOD and IO Query Builder

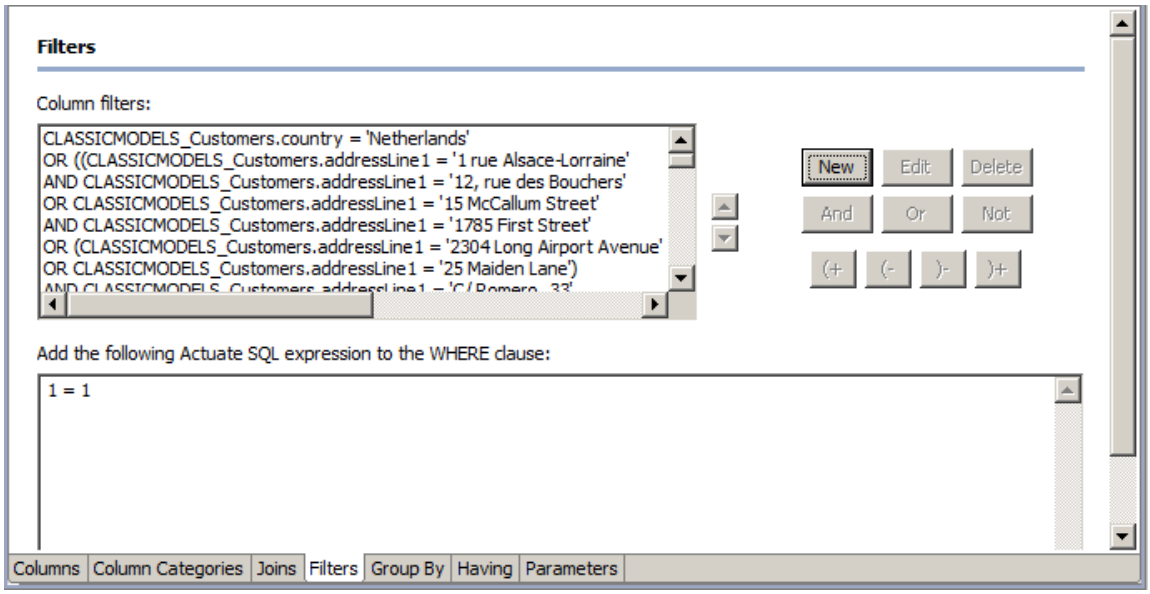
Actuate 11 add a number of new improvement to the Information Object Designer as well as the Information Object Query Builder component available in all Actuate Designers such as BIRT Report Designer/Pro, e.Report Designer Professional and e.Spreadsheet Designer.

Numerous enhancements have been made to the filter dialog to facilitate specification of both simple and compound filters. The filter dialog enables designers to visually define complex filters by using operators such as AND, OR, NOT as well as parenthesis for nested filters.

In addition, the filter dialog also presents a list of valid values for the selected filters thereby enabling designers to easily specify values.

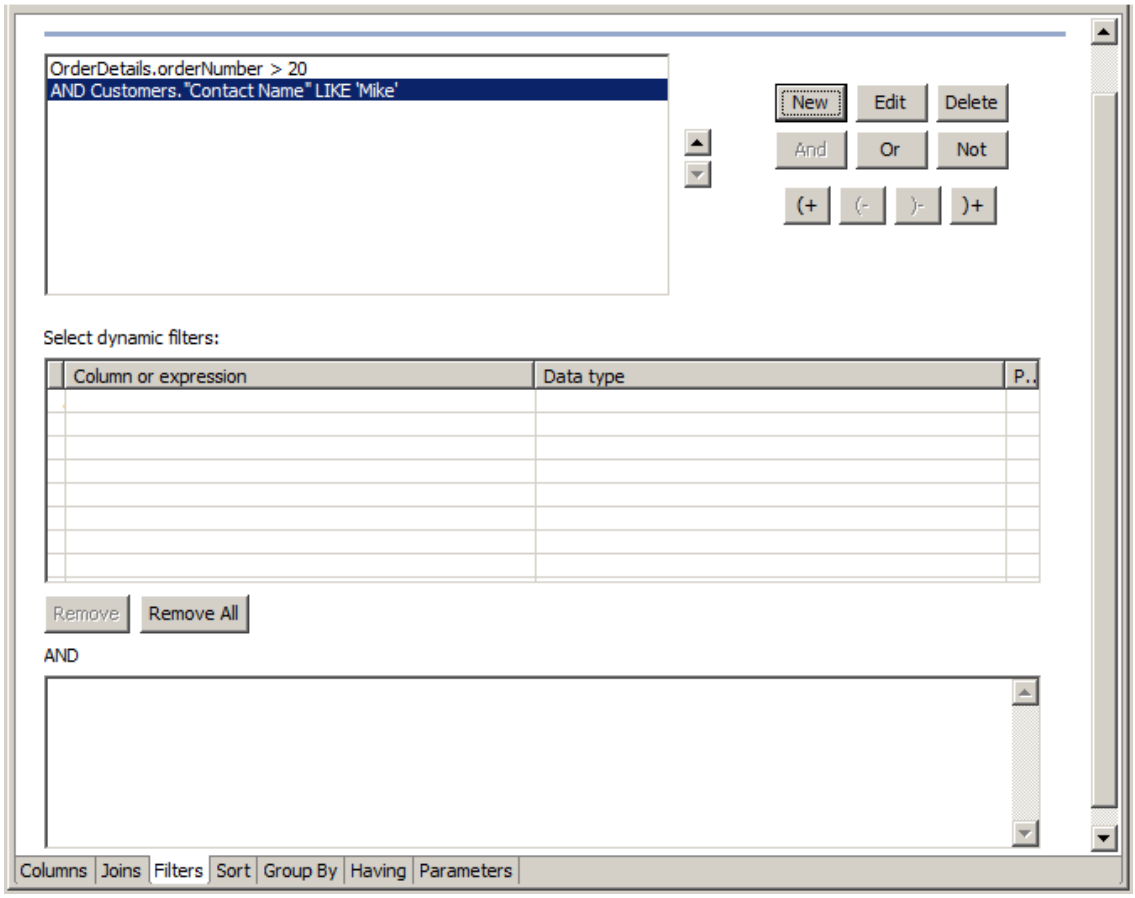
The new filter interface is very intuitive and gives the user visual feedback of exactly what the generated SQL text will be for the filters.

In the Information Object Designer, the user modifies a filter by selecting the "Filters" tab in the editor. Here a view of the current filters is displayed.

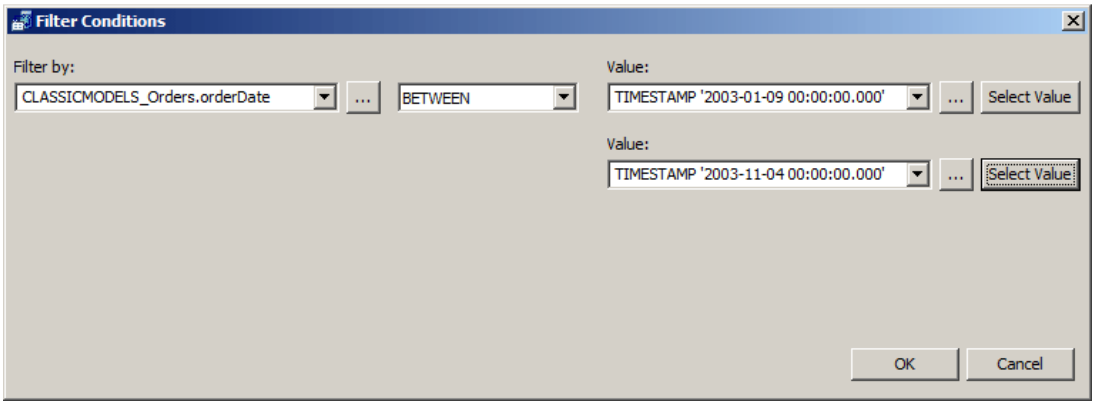


The buttons to the right give users more powerful filtering ability, rather than restricting them to a list of AND conditions. The user can use AND, OR, and NOT to combine filters and build up parenthesized filter compounds.

The IO Query Builder UI is similar:

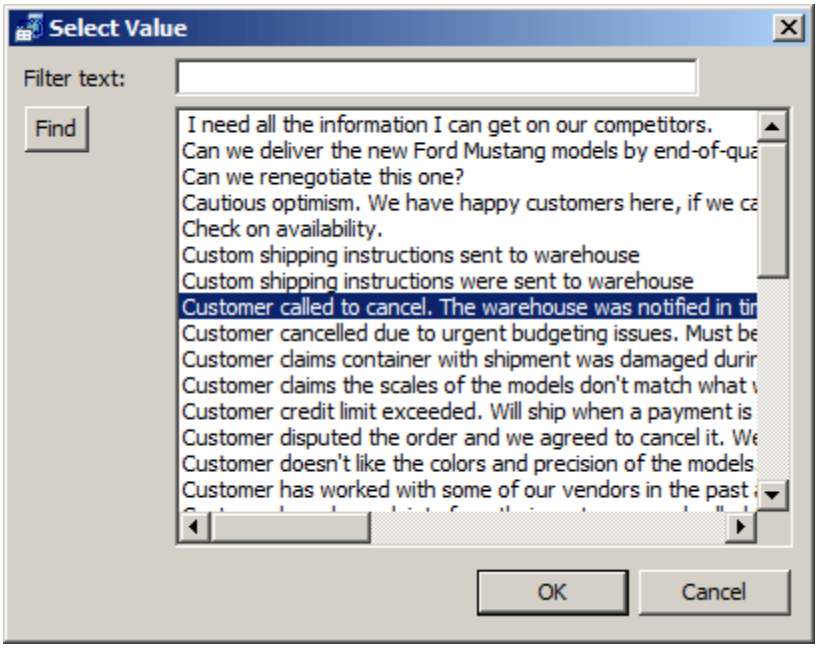


The Add Filter Dialog is used to define a filter:



Here we see a filter using the "between" operator. The UI separates the two values used in the filter, and provides the user with "Select Value", which gives the user a list of available values to choose from.

The "Select Value" button launches a dialog which pulls a sampling of live data from the database. By default, only the first 200 rows of data are displayed. However, the filter UI can be used to refine the results:



If text is entered in the text field then the results returned will be filtered by performing a prefix match.

Improved Categories Support

The Information Object Designer enables a developer to organize Information Object columns in categories thus making it easy for consumers of the Information Object such as BIRT Report Studio users to locate a specific column of the object.

Actuate 11 extends the use of categories in the Information Object Designer to the Information Object editor as well as expression builder interfaces thus improving the efficiency of all Actuate designer users.

In the graphical editor, the user has also has the option to toggle the categories on or off for those sources that have categories defined.

Automatic Grouping Support

Actuate 11 improves the developer efficiency by adding automatic grouping support in both the Information Object Designer as well as the Information Object Query builder. Whenever a developer adds an aggregation to a column, the query builder presents an option to automatically add the GROUP BY criteria and construct the correct ASQL statement.

Improved Performance

Actuate 11 improves the performance of complex IOB structures by providing an option to pre-compile these and store the query plan. The complexity of an Information Object is determined by the number of Information Object layers (at least > 4 levels). For Information Objects using this will help speed up the compilation times for complex IOB structures like "wide" IO or a "tall" IO hierarchy (at least > 4 levels).