

# Actuate One™

One Design  
One Server  
One User Experience

**Working with Actuate Query**

Information in this document is subject to change without notice. Examples provided are fictitious. No part of this document may be reproduced or transmitted in any form, or by any means, electronic or mechanical, for any purpose, in whole or in part, without the express written permission of Actuate Corporation.

© 1995 - 2012 by Actuate Corporation. All rights reserved. Printed in the United States of America.

Contains information proprietary to:  
Actuate Corporation, 951 Mariners Island Boulevard, San Mateo, CA 94404

[www.actuate.com](http://www.actuate.com)  
[www.birt-exchange.com](http://www.birt-exchange.com)

The software described in this manual is provided by Actuate Corporation under an Actuate License agreement. The software may be used only in accordance with the terms of the agreement. Actuate software products are protected by U.S. and International patents and patents pending. For a current list of patents, please see <http://www.actuate.com/patents>.

Actuate Corporation trademarks and registered trademarks include:  
Actuate, ActuateOne, the Actuate logo, Archived Data Analytics, BIRT, BIRT 360, BIRT Data Analyzer, BIRT Performance Analytics, Collaborative Reporting Architecture, e.Analysis, e.Report, e.Reporting, e.Spreadsheet, Encyclopedia, Interactive Viewing, OnPerformance, Performancesoft, Performancesoft Track, Performancesoft Views, Report Encyclopedia, Reportlet, The people behind BIRT, X2BIRT, and XML reports.

Actuate products may contain third-party products or technologies. Third-party trademarks or registered trademarks of their respective owners, companies, or organizations include:

Mark Adler and Jean-loup Gailly ([www.zlib.net](http://www.zlib.net)): zlib. Adobe Systems Incorporated: Flash Player. Apache Software Foundation ([www.apache.org](http://www.apache.org)): Axis, Axis2, Batik, Batik SVG library, Commons Command Line Interface (CLI), Commons Codec, Derby, Hive driver for Hadoop, Shindig, Struts, Tomcat, Xalan, Xerces, Xerces2 Java Parser, and Xerces-C++ XML Parser. Castor ([www.castor.org](http://www.castor.org)), ExoLab Project ([www.exolab.org](http://www.exolab.org)), and Intalio, Inc. ([www.intalio.org](http://www.intalio.org)): Castor. Codejock Software: Xtreme Toolkit Pro. Eclipse Foundation, Inc. ([www.eclipse.org](http://www.eclipse.org)): Babel, Data Tools Platform (DTP) ODA, Eclipse SDK, Graphics Editor Framework (GEF), Eclipse Modeling Framework (EMF), and Eclipse Web Tools Platform (WTP), licensed under the Eclipse Public License (EPL). Bits Per Second, Ltd. and Graphics Server Technologies, L.P.: Graphics Server. Gargoyl Software Inc.: HtmlUnit, licensed under Apache License Version 2.0. GNU Project: GNU Regular Expression, licensed under the GNU Lesser General Public License (LGPLv3). HighSlide: HighCharts. IDAutomation.com, Inc.: IDAutomation. Jason Hsueth and Kenton Varda ([code.google.com](http://code.google.com)): Protocol Buffer. IDRolutions Ltd.: JBIG2, licensed under the BSD license. ImageMagick Studio LLC.: ImageMagick. InfoSoft Global (P) Ltd.: FusionCharts, FusionMaps, FusionWidgets, PowerCharts. Matt Inger ([sourceforge.net](http://sourceforge.net)): Ant-Contrib, licensed under Apache License Version 2.0. Matt Ingenthron, Eric D. Lambert, and Dustin Sallings ([code.google.com](http://code.google.com)): Spymemcached, licensed under the MIT OSI License. International Components for Unicode (ICU): ICU library. jQuery: jQuery, licensed under the MIT License. Yuri Kanivets ([code.google.com](http://code.google.com)): Android Wheel gadget, licensed under the Apache Public License (APL). KL Group, Inc.: XRT Graph, licensed under XRT for Motif Binary License Agreement. LEAD Technologies, Inc.: LEADTOOLS. Bruno Lowagie and Paulo Soares: iText, licensed under the Mozilla Public License (MPL). Microsoft Corporation (Microsoft Developer Network): CompoundDocument Library. Mozilla: Mozilla XML Parser, licensed under the Mozilla Public License (MPL). MySQL Americas, Inc.: MySQL Connector. Netscape Communications Corporation, Inc.: Rhino, licensed under the Netscape Public License (NPL). OOPS Consultancy: XMLTask, licensed under the Apache License, Version 2.0. Oracle Corporation: Berkeley DB, Java Advanced Imaging, JAXB, JDK, Jstl. PostgreSQL Global Development Group: pgAdmin, PostgreSQL, PostgreSQL JDBC driver. Progress Software Corporation: DataDirect Connect XE for JDBC Salesforce, DataDirect JDBC, DataDirect ODBC. Rogue Wave Software, Inc.: Rogue Wave Library SourcePro Core, tools.h++. Sam Stephenson ([prototype.conio.net](http://prototype.conio.net)): prototype.js, licensed under the MIT license. Sencha Inc.: Ext JS. ThimbleWare, Inc.: JMemcached, licensed under the Apache Public License (APL). World Wide Web Consortium (W3C)(MIT, ERCIM, Keio): Flute, JTIty, Simple API for CSS. XFree86 Project, Inc.: ([www.xfree86.org](http://www.xfree86.org)): xvfb. ZXing authors ([code.google.com](http://code.google.com)): ZXing, licensed under the Apache Public License (APL).

All other brand or product names are trademarks or registered trademarks of their respective owners, companies, or organizations.

Document No. 120201-2-530331 September 26, 2012

# Contents

<b>About <i>Working with Actuate Query</i>.....</b>	<b>iii</b>
<b>Working with a query for an information object.....</b>	<b>1</b>
About information objects .....	2
About creating a query for an information object .....	3
About including database columns in the query for an information object .....	3
About grouping query data for an information object .....	3
About summarizing query data for an information object .....	5
About sorting query data for an information object .....	6
About specifying values for filters for an information object .....	6
About specifying a query output format for an information object .....	7
About saving a query for an information object .....	7
Creating a query for an information object .....	7
Specifying values for filters for an information object .....	14
Specifying values for predefined filters for an information object .....	14
Specifying values for custom filters for an information object .....	14
Using NULL and IS NOT NULL for a custom filter for an information object .....	15
Using the IN operator for a custom filter for an information object .....	16
Modifying, running, and scheduling a query for an information object .....	17
<b>Index .....</b>	<b>21</b>



# A b o u t   W o r k i n g   w i t h A c t u a t e   Q u e r y

---

*Working with Actuate Query* provides information about Actuate Query option and how to use it to create a query for an Actuate information object. This book also describes how to modify, run, and schedule a query for an Actuate information object.

*Working with Actuate Query* includes the following chapters:

- *About Working with Actuate Query.* This chapter provides an overview of this guide.
- *Working with a query for an information object.* This chapter describes how to modify, run, and schedule a query for an Actuate information object.



# Working with a query for an information object

---

This chapter contains the following topics:

- About information objects
- About creating a query for an information object
- Creating a query for an information object
- Specifying values for filters for an information object
- Modifying, running, and scheduling a query for an information object

---

## About information objects

The Actuate Query Option supports creating a query using an information object and making the query available to other users. An information object contains a database connection and an Actuate SQL query. An information object does not, however, contain page layouts, controls, or formatting. For example, the information object example in this chapter contains the following Actuate SQL query:

```
SELECT Customers.customerNumber AS customerNumber,
       Customers.customerName AS customerName,
       Customers."Contact Name" AS "Contact Name",
       Customers.addressLine1 AS addressLine1,
       Customers.addressLine2 AS addressLine2, Customers.city AS city,
       Customers.state AS state, Customers.country AS country,
       Customers.postalCode AS postalCode, Customers.creditLimit AS
       creditLimit, Offices.country AS country_1, Offices.state AS
       state_1, Offices.city AS city_1,
       Offices.officeCode AS officeCode, Orders.orderNumber AS
       orderNumber, Orders.orderDate AS orderDate,
       Orders.requiredDate AS requiredDate, Orders.shippedDate AS
       shippedDate, Orders.status AS status,
       Products.productCode AS productCode_1, OrderDetails.priceEach
       AS priceEach, OrderDetails.quantityOrdered AS quantityOrdered,
       ( (Sum(OrderDetails.quantityOrdered *
       OrderDetails.priceEach)) ) AS Total, Products.productLine AS
       productLine, Products.productName AS productName,
       Products.MSRP AS MSRP, Products.buyPrice AS buyPrice,
       Products.quantityInStock AS quantityInStock,
       Employees.employeeNumber AS employeeNumber, Employees.lastName
       AS lastName, Employees.firstName AS firstName,
       Employees.officeCode AS officeCode_1
FROM "../Base Layer/Customers/Customers.iob" AS Customers
GROUP BY Customers.customerName, Customers.customerNumber,
       Customers.addressLine1, Customers.addressLine2, Customers.city,
       Customers.state, Customers.country, Customers.postalCode,
       Customers.phone, Customers.creditLimit, Offices.country,
       Offices.state, Offices.city, Offices.officeCode,
       Employees.email, Employees.lastName, Employees.firstName,
       Employees.employeeNumber, Orders.orderNumber, Orders.orderDate,
       Orders.requiredDate, Orders.shippedDate, Orders.status,
       Customers."Contact Name", OrderDetails.orderLineNumber,
       Products.productCode, OrderDetails.priceEach,
       OrderDetails.quantityOrdered, Orders.comments,
       Products.productLine, Products.productName,
       ProductLine.textDescription, Products.MSRP, Products.buyPrice,
       Products.quantityInStock
```



---

## About creating a query for an information object

To create a query, complete the following tasks:

- Locate the information object that you want to use to create the query in the Encyclopedia volume. For more information about accessing an Encyclopedia volume, see *Using Information Console*.  
You must have read privilege on the information object. For more information about privileges, see *Using Information Console*.
- Using the information object and Actuate Query Wizard, create and save the query.
- Run the query and examine the output.
- If the query generates the required output, grant read and execute privileges on the saved query to the appropriate users and security roles.  
If the query does not generate the required output, modify the query as necessary and run it again.

The topics that follow in this section provide an overview of each of the Actuate Query Wizard options.

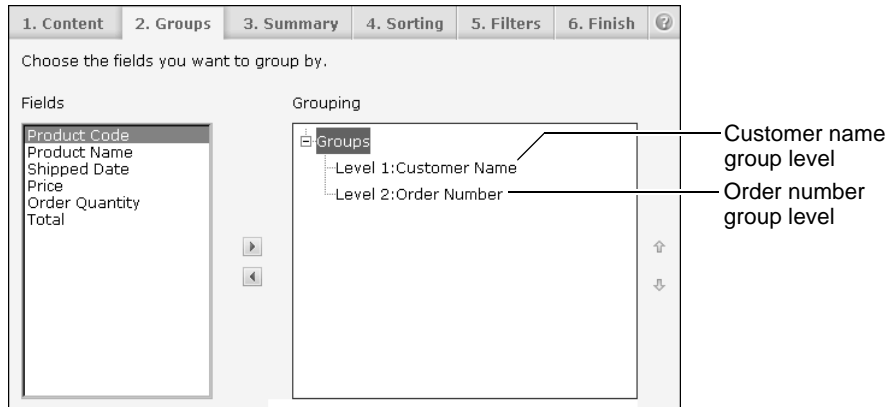
### About including database columns in the query for an information object

Depending on how a report developer specifies database column names, you can include database columns by choosing from display names, column names, or data row variable names. If a report developer associates descriptive display names with database columns, the Actuate Query Wizard displays the descriptive names. If a report developer does not set the display names, the Actuate Query Wizard displays the column names as they appear in the database. The Actuate Query Wizard displays data row variable names instead of column names when no other information is available.

### About grouping query data for an information object

You can organize query output data in one or more groups, such as grouping sales orders by customer or sales representative. Using more than one group creates a hierarchy of group levels. For example, you can organize a list of items that are sold using a customer name group level and an order number group level, as shown in Figure 1-1.

When you run the query, the query output displays order number groups in each customer name group, as shown in Figure 1-2.

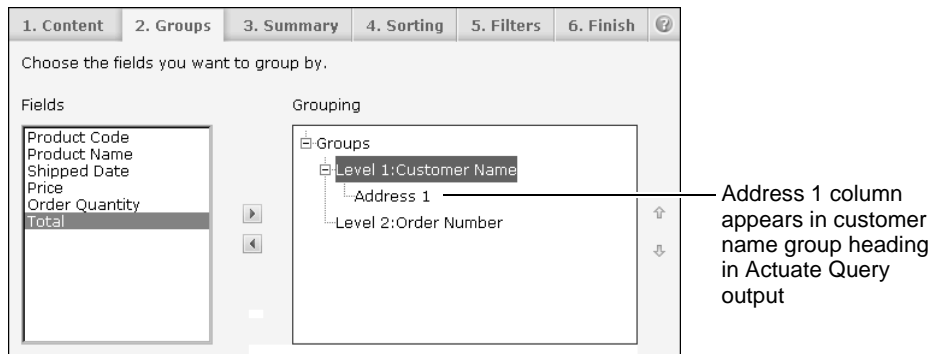


**Figure 1-1** Grouping query data

Customer Name: Auto Associés & Cie.						
Order Number: 10216						
Product	Product Name	Shipped Date	Price	Order Quantity	Total	Address 1
S12_1666	1958 Setra Bus	02/04/2004	\$133.94	43	5759.42	67, avenue de l'Europe
Order Number: 10304						
Product	Product Name	Shipped Date	Price	Order Quantity	Total	Address 1
S700_2824	1982 Camaro Z28	10/17/2004	\$80.92	40	3236.8	67, avenue de l'Europe
S32_3522	1996 Peterbilt 379 Stake Bed with Outrigger	10/17/2004	\$52.36	36	1884.96	67, avenue de l'Europe

**Figure 1-2** Query output displays order ID groups in each customer group

You can also add an additional column to a group heading. That column's value appears in the group heading in Actuate Query output. For example, you can add the address column. When you add a column to a group heading, Actuate Query Wizard appears as shown in Figure 1-3.



**Figure 1-3** Adding a column name to a group heading

When you run the query, the query output displays both the group level and the additional column's value in the group heading. For example, the customer name and the address column values appear in the customer group heading, as shown in Figure 1-4.

Customer Name: Auto Associés & Cie.		67, avenue de l'Europe			
Order Number: 10216					
Product	Product Name	Shipped Date	Price	Order Quantity	Total
S12_1666	1998 Setra Bus	02/04/2004	\$133.94	43	5739.42
Order Number: 10304					
Product	Product Name	Shipped Date	Price	Order Quantity	Total
S700_2824	1982 Camaro Z28	10/17/2004	\$80.92	40	3236.8
S32_3522	1996 Peterbilt 379 Stake Bed with Outrigger	10/17/2004	\$52.36	36	1884.96

**Figure 1-4** Displaying a column name in a group heading

If you add a column to a group heading, ensure that a one-to-one relationship exists between the group level and the column you add. For the example in Figure 1-4, only one customer address appears in the data source for each customer name.

If you add a column for which Actuate Query retrieves multiple values from a data source, the group heading displays only one of those values. The other column values that the query retrieves determine what data appears in the detail rows of the Actuate Query output. For example, if Actuate Query retrieves more than one customer address from the data source, only one of those addresses appears in the customer name group heading. The detail rows of the Actuate Query output, however, display the retrieved data from all of this customer's addresses.

If you select Do not show detail rows, query output displays the group heading for each group level and includes only the summary rows, as shown in Figure 1-5.

Customer Name: Auto Associés & Cie.		67, avenue de l'Europe	
Total			
Order Number: 10216		Sum: 5739.42	
Order Number: 10304		Sum: 53116.99	
Customer Name: Auto Associés & Cie.		Sum: 58876.41	

**Figure 1-5** Displaying the group heading for each group level

## About summarizing query data for an information object

You can summarize numerical query output data. The summary can appear as a sum, an average, or a minimum or maximum value. The summary value appears at the end of each group of data, as shown in Figure 1-6.

Customer Name: Atelier graphique				
Order Number: 10123				
	Product	Price	OrderQuantity	Total
	S18_1589	\$120.71	26	3138.46
	S18_2870	\$114.84	46	5282.64
	S18_3685	\$117.26	34	3986.84
	S24_1628	\$43.27	50	2163.50
Order Number: 10123			Sum:	14571.44
Order Number: 10298				
	Product	Price	OrderQuantity	Total
	S10_2016	\$105.86	39	4128.54
	S18_2625	\$60.57	32	1938.24
Order Number: 10298			Sum:	6066.78
Order Number: 10345				
	Product	Price	OrderQuantity	Total
	S24_2022	\$38.98	43	1676.14
Order Number: 10345			Sum:	1676.14
Customer Name: Atelier graphique			Sum:	22314.36

Detail rows  
 Summary value for an order number group  
 Detail rows  
 Summary value for an order number group  
 Summary value for an order number group  
 Summary value for a customer name group

**Figure 1-6** Summarizing query data

You can display group headings and summary information for each group and hide the detail rows in the query output, as shown in Figure 1-7.

Customer Name: Atelier graphique	
	Total
Order Number: 10123	Sum: 14571.44
Order Number: 10298	Sum: 6066.78
Order Number: 10345	Sum: 1676.14
Customer Name: Atelier graphique	Sum: 22314.36

**Figure 1-7** Hiding the detail rows in the query output

## About sorting query data for an information object

You can sort query output data alphabetically, numerically, or by reversing the order in which the data appears in the data source. If you do not sort data, the data appears in the order in which it appears in the data source.

You can suppress the appearance of duplicate detail rows in Actuate Query output if you select Skip duplicate rows on Actuate Query Wizard—Content. If you sort column data that does not appear in the query output, duplicate data rows can appear in the query output. For example, if you sort the column, offices.state, and do not display the offices.state column data in the query output, the query output can display duplicate detail rows. If the query output displays duplicate detail rows, change the sorting options to ensure that all data source columns to which you apply sorting appear in the query output.

## About specifying values for filters for an information object

You can specify values for predefined and custom filters.

## About specifying a query output format for an information object

You can specify the following query output formats:

- Browser (DHTML) presents the query output in a web page when you run the query. From the DHTML Viewer toolbar, you can access other formats, such as Microsoft Excel, PDF, Microsoft PowerPoint, and RTF.
- Excel presents the query output in an Excel spreadsheet when you run the query. The run fails if the result set is too large to fit in the Excel document. The report retains basic data types for analysis in Excel. The output also includes column headings. This Excel output format option displays only data and not groups or summary values. You can display groups and summary information in Excel format by exporting the query output from the DHTML Viewer to Excel.
- PDF presents the query output as a PDF file when you run the query.
- e.Analysis presents the query output in Actuate e.Analysis if the Actuate e.Analysis Option is enabled for the BIRT iServer System. You can then analyze this data. You receive an error message if e.Analysis is not available. The run fails if multiple columns in the query have the same display name. For more information about Actuate e.Analysis, see *Using e.Analysis*.

## About saving a query for an information object

You can save a query to support reusing it. Information Console saves the query as an Actuate Query Definition (.dov) file. A saved DOV uses the latest version of the information object when you run the DOV. You can also create multiple versions of a query in an Encyclopedia volume. If you modify an existing DOV file or create a new version of a DOV file, the DOV saves the properties, such as privileges and scheduling information, from the original DOV as the default behavior.

---

## Creating a query for an information object

Use Actuate Query Wizard to create a query for an information object.

### How to create a query for an information object

- 1 In an Encyclopedia volume, choose an information object. You can identify an information object in the following ways:
  - In Information Console, an information object appears in Information Objects You Can Query.

- In Management Console, Actuate Information Object appears in Type for an information object.

2 On Actuate Query—Content, set up report content:

1 Select the columns to include in the query:



- To add specific columns to the query, select the columns in Available Columns then choose the right arrow.



- To add all available columns to Selected Columns, choose the double right arrow.

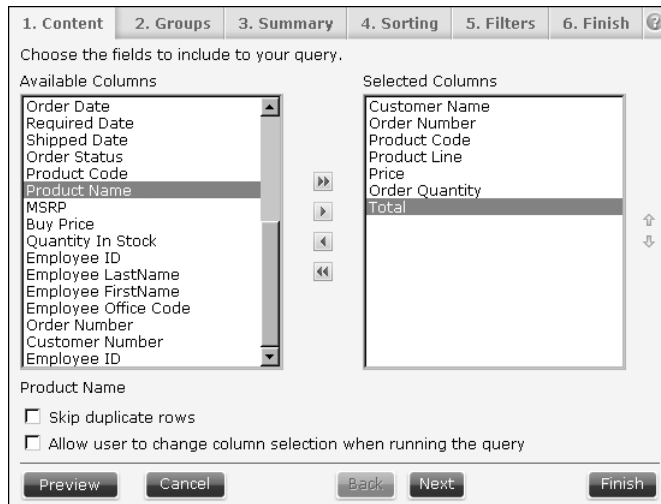


- To remove a column from Selected Columns, select the column then choose the left arrow.



- To remove all columns from Selected Columns, choose the double left arrow.

The columns you add to the query appear in Selected Columns, as shown in Figure 1-8. The order of the selected columns is the order in which the columns appear in the query output.



**Figure 1-8** Columns you add to the query appear in Selected Columns






- 2 To change the order of items in Selected Columns, select an item and choose the up arrow or the down arrow.
- 3 To prevent duplicate detail data rows from appearing in the query output, select Skip duplicate rows.
- 4 To support changing column selection or order when a user runs the query, select Allow user to change column selection when running the query.

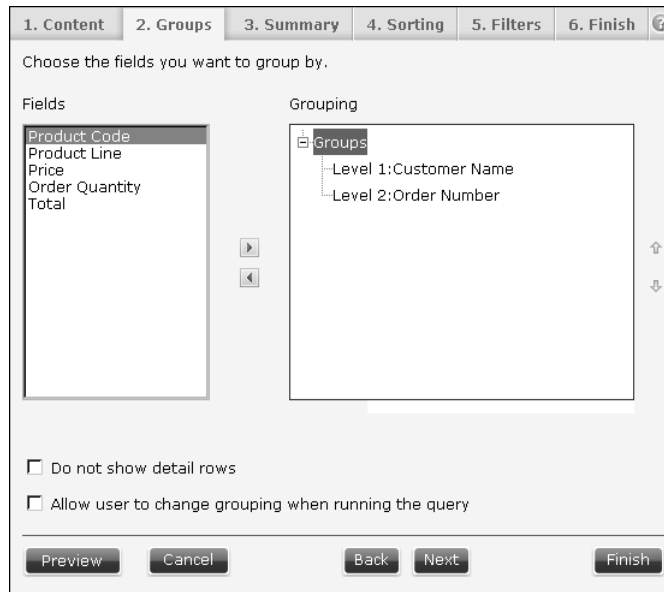
To continue with the query setup, choose Next.

**3** On Actuate Query—Groups, set up grouping:

**1** Choose the columns by which to group data:

-   To add a column, select the column in Fields then choose the right arrow.
-   To remove a column from Grouping, select the column then choose the left arrow.
-   To nest a group within a group, select a column in Fields and a column in Grouping, then choose the right arrow.

In Figure 1-9, Grouping displays how to group data using an order number group level in each customer name group level.



**Figure 1-9** Grouping displays how to group data

- 2** To hide the detail rows in the query output, select Do not show detail rows.
- 3** To support changing the grouping when a user runs the query, select Allow user to change grouping when running the query.

To continue with the query setup, choose Next.

**4** On Actuate Query—Summary, set up summary information for the report:

- 1** Choose the summaries to include in your report, as shown in Figure 1-10.

**Figure 1-10** Choosing the summaries to include in your report

- 2 To display row counts in the totals, select Show row counts in total.

A row count is the number of data rows from the data source that the query uses to calculate a summary value.

- 3 To support changing the summary options when a user runs the query, select Allow user to change summary options when running the query.

To continue with the query setup, choose Next.

- 5 On Actuate Query—Sorting, specify the sort order for a query’s output:

- 1 In Groups, specify the sort order for groups.
- 2 In Detail, specify the sort order for detail rows:
  - Select a field from the drop-down list.
  - After you select a field on which to sort, choose Ascending or Descending from the drop-down list. An additional set of sort fields appears.
  - To specify an additional column on which to sort, use a new sort field, as shown in Figure 1-11.

**Figure 1-11** Specifying the sort order



- 3 To support changing the sort order when a user runs the query, select Allow user to change sort order when running the query.

To continue with the query setup, choose Next.

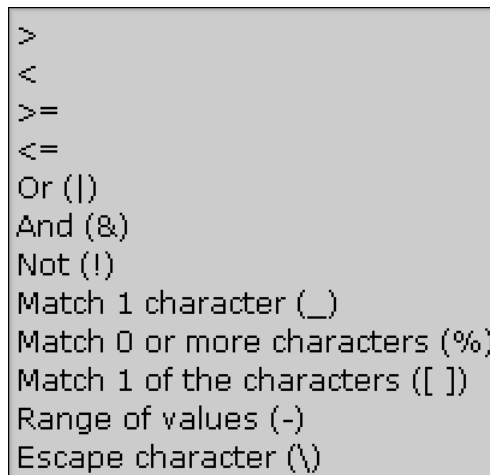
- 6 On Actuate Query—Filters, specify default values for predefined and custom filters:

- 1 In Predefined Filters (Parameters), specify default values for predefined filters.

For an ad hoc parameter, you can type a single value or create a QBE expression. To create a QBE expression:



- 1 Choose the QBE expression builder icon to the right of the field. The expression builder appears, as shown in Figure 1-12.



**Figure 1-12** Expression builder

- 2 Create a QBE expression. For information about QBE syntax, see *Using Information Console*.
  - 3 To support changing the value of a predefined filter when a user runs the query, select the check box at the right of the field. If you do not select the check box, the query uses the default value.
- 2 In Custom Filters, set up the custom filters:
    - Choose a column name from the drop-down list and specify an operator and an operand, if necessary. You can create multiple filters for each column.
    - To support changing the value of a custom filter when a user runs the query, select the check box at the right of the field, as shown in Figure 1-13. If you do not select the check box, the query uses the

default value.

1. Content 2. Groups 3. Summary 4. Sorting 5. Filters 6. Finish ?

Enter values for the predefined filters and custom filters. Allow user to change

Predefined Filters (Parameters)

Order status: Closed ✓

Custom Filters

Customer Name LIKE Au% ✓

= ✓

Preview Cancel Back Next Finish

**Figure 1-13** Setting up custom filters

To complete the query setup, choose Finish.

- 7 On Actuate Query—Finish, as shown in Figure 1-14, complete the following settings:

1. Content 2. Groups 3. Summary 4. Sorting 5. Filters 6. Finish ?

**Finish your query, choose output format and save the query (optional).**

Page header: Order numbers in customer name groups

Output format:

Browser (DHTML)

Excel

PDF

e.Analysis Run

Allow user to change output format when running the query

Query name: Sales\_total\_by\_Customer Name

Location:  Home folder  Other (please specify) /Information Objects/Sample IO Prc Browse...

Description:

Save Query

Back Next Close

**Figure 1-14** Specifying options on Actuate Query—Finish

- In Page header, type an appropriate heading for the query. The page header appears on every page of the finished report.
- Select an output format for the query result.
- To support changing the output format selection when a user runs the query, select Allow user to change output format when running the query.

- To save the query, complete the following tasks in this order:
    - In Query name, type an appropriate name for the query.
    - In Location, choose Browse to navigate to the appropriate folder in the Encyclopedia volume. Choose OK.
    - In Description, type an appropriate description.
    - Choose Save Query. If the query already exists, you can replace the existing query.
- 8 To run the query, choose Run. The query output appears in a new window, as shown in Figure 1-15.

<b>Order numbers in customer name groups</b>					
Customer Name: Australian Collectables, Ltd					
Order Number: 10193					
Product	Product Line	Price	Order	Quantity	Total
S18_2949	Vintage Cars	\$87.13	28		2439.64
S18_3136	Vintage Cars	\$97.39	23		2239.97
S18_2937	Vintage Cars	\$53.09	24		1274.16
S24_4238	Vintage Cars	\$92.52	20		1850.4
S18_3320	Vintage Cars	\$79.37	32		2539.84
S18_1367	Vintage Cars	\$46.36	46		2132.56
S18_1342	Vintage Cars	\$92.47	28		2589.16
S18_2795	Vintage Cars	\$143.44	22		3155.68
S24_2022	Vintage Cars	\$44.80	20		896
S24_1937	Vintage Cars	\$32.19	26		836.94
S18_2325	Vintage Cars	\$115.69	44		5090.36
S24_3969	Vintage Cars	\$38.16	22		839.52
S18_2248	Vintage Cars	\$60.54	42		2542.68
S18_1749	Vintage Cars	\$153.00	21		3213
S18_4409	Vintage Cars	\$92.03	24		2208.72
S18_4933	Classic Cars	\$66.28	25		1657
Order Number: 10193					Sum: 35505.63
Order Number: 10265					
Product	Product Line	Price	Order	Quantity	Total
S18_3482	Classic Cars	\$123.47	49		6050.03
S18_3278	Classic Cars	\$74.78	45		3365.1
Order Number: 10265					Sum: 9415.13
Order Number: 10415					
Product	Product Line	Price	Order	Quantity	Total
S24_2841	Planes	\$60.97	21		1280.37
S24_3420	Vintage Cars	\$59.83	18		1076.94
S72_1233	Planes	\$43.20	42		1814.4
S700_2047	Ships	\$73.32	32		2346.24
S18_3836	Vintage Cars	\$86.81	51		4427.31
Order Number: 10415					Sum: 10945.26
Customer Name: Australian Collectables, Ltd					Sum: 55866.02

**Figure 1-15** Displaying query output

### **How to display groups and summary information in query output in Excel format**

If you specify groups on Actuate Query Wizard—Groups and summary values on Actuate Query Wizard—Summary, complete the following procedure to display the groups and summary values in query output:

- 1 In Output format on Actuate Query Wizard—Finish, select Browser (DHTML). Choose Run.

The query output appears in the web browser.

- 2 To export the data from the query output in the DHTML Viewer to Microsoft Excel, retaining groups and summary values, choose Download.

- 3 In Export Report on Download, complete the following tasks:

- Select Excel Data or Excel Display.
- Choose View Report or Save Report.

The exported query output data retains the groups and summary values.

---

## **Specifying values for filters for an information object**

You can specify values for predefined and custom filters for an information object.

### **Specifying values for predefined filters for an information object**

A report developer defines predefined filters. A predefined filter can use a single value or a QBE expression. For more information about QBE expressions, see *Using Information Console*.

### **Specifying values for custom filters for an information object**

For a custom filter, you can specify a database column, an operator, and an operand using QBE syntax. The following operators are available:

- =
- <
- <=
- >
- >=
- <> (Not equal)

- LIKE
- NOT LIKE
- IS NULL
- IS NOT NULL
- IN

Table 1-1 shows the resulting SQL when the database column is Customer and the operand is ABB Kent.

**Table 1-1** SQL examples

Operator	SQL
=	Customer = 'ABB Kent'
<	Customer < 'ABB Kent'
<=	Customer <= 'ABB Kent'
>	Customer > 'ABB Kent'
>=	Customer >= 'ABB Kent'
<>	Customer <> 'ABB Kent'
LIKE	Customer LIKE 'ABB Kent%'
NOT LIKE	Customer NOT LIKE 'ABB Kent%'
IN	Customer LIKE 'ABB Kent%'

For more information about QBE expressions, see *Using Information Console*.

### Using NULL and IS NOT NULL for a custom filter for an information object

The operators IS NULL and IS NOT NULL are available. Table 1-2 shows the resulting SQL when you use the IS NULL and IS NOT NULL operators with the Customer database column.

**Table 1-2** SQL examples using IS NULL and IS NOT NULL operators

Operator	SQL
IS NULL	Customer IS NULL
IS NOT NULL	Customer IS NOT NULL

Table 1-3 lists additional examples of custom filter operators, operands, and the SQL statements that Information Console uses.

**Table 1-3** Examples of custom filter operators, operands, and SQL statements

Operator	Operand	SQL
=	Null	= 'Null'
<>	Null	<> 'Null'
LIKE	\Null	LIKE 'Null%'
LIKE	Null%	LIKE 'Null%'
LIKE	Null	IS NULL
NOT LIKE	\Null	NOT LIKE 'Null%'
NOT LIKE	Null	IS NOT NULL

### Using the IN operator for a custom filter for an information object

Using the IN operator, you specify an operand using QBE syntax. You can use the IN operator with a column of any data type. Table 1-4 lists examples of operands for the IN operator and the SQL statements that Information Console uses.

**Table 1-4** SQL examples using the IN operator for a custom filter

Operator	Operand	SQL
IN	6   21	Column = 6 OR Column = 21
IN	1   3-5	Column = 1 OR Column BETWEEN 3 AND 5
IN	CA   CT   NV	Column LIKE 'CA%' OR Column LIKE 'CT%' OR Column LIKE 'NV%'
IN	'CA'   'CT'   'NV'	Column = 'CA' OR Column = 'CT' OR Column = 'NV'

For Actuate Query, BIRT iServer implements custom filters using QBE syntax. BIRT iServer does not distinguish between the following QBE expressions:

```
CustomerID = 6
CustomerID IN 6
```

BIRT iServer returns = 6 to the client application no matter how a user specified and saved the custom filter.

In Actuate Query custom filters, the following limitations apply to the IN operator:

- The IN operator does not support using operators in a list of values, for example:

```
!50 | >100 | <50 | null | (1&2)
```

- Actuate Query does not support NOT IN. To specify such a filter condition, define multiple custom filters on the same column using the inequality operator, <>, for example:

```
CustomerState <> 'CA'  
CustomerState <> 'NY'
```

For more information about QBE expressions, see *Using Information Console*.

---

## Modifying, running, and scheduling a query for an information object

You can make a query for an information object available to other users by granting read and execute privileges on the Actuate Query Definition (.dov) file to the appropriate users and security roles. Users with those privileges can:

- Modify the query.
- Run the query.
- Schedule the query to run at a later time.

### How to modify a query for an information object

1 Complete one of the following tasks:

- In Information Console on Documents in Queries, choose Edit for the query to modify.



- In Management Console, choose the icon to the left of an Actuate Query Definition. Choose Edit Query.

Actuate Query Wizard appears, displaying the current settings for the query.

2 Modify the settings in Content, Groups, Summary, Sorting, Filters, and Finish as necessary.

### How to run a query for an information object

1 Complete one of the following tasks:

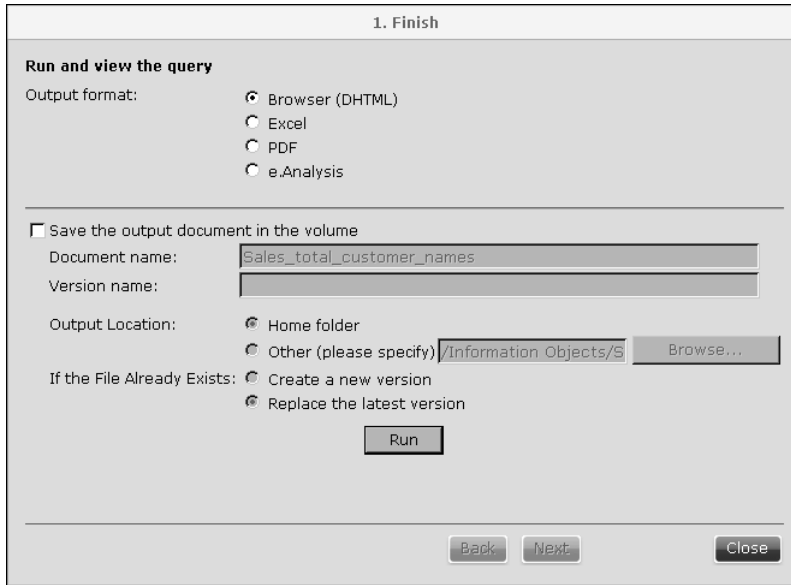
- In Information Console on Documents in Queries, choose the query to run.



- In Management Console, choose the icon to the left of an Actuate Query Definition. Choose Run Query.

Actuate Query Wizard appears, displaying the current settings for the query. The options available depend on the settings that the query developer specifies.

- 2 Modify the settings as necessary.
- 3 Choose Finish. Actuate Query—Finish appears, as shown in Figure 1-16.



**Figure 1-16** Actuate Query—Finish

- 4 Complete the following tasks:
  - 1 To save the output document, select Save the output document in the volume and specify a document name, version name, output location, and whether to create a new version of the file or replace the latest version. Information Console saves the output document as an Actuate Query Output file.
  - 2 Choose Run to run the query and view the query output.

#### How to schedule a query for an information object

- 1 Complete one of the following tasks:



- In Information Console on Documents in Queries, choose the clock icon for the query to schedule.



- In Management Console, choose the icon to the left of an Actuate Query Definition. Choose Schedule Query.



- 2 On Actuate Query—Schedule, in Job Name, type a job name, then select one of the following scheduling options and specify its settings:
  - Right now, as shown in Figure 1-17, schedules the query to run immediately.

The screenshot shows a dialog box with two tabs: '1. Schedule' and '2. Finish'. The '1. Schedule' tab is active. Below the tabs, the text reads 'Specify the schedule for when you want the query to run.' There is a text field for 'Job Name:' containing 'Sales\_total\_customer\_names' with an asterisk to its right. Below that, 'Scheduling Options:' are listed with three radio buttons: 'Right now' (which is selected), 'Once', and 'Recurring'. At the bottom of the dialog are four buttons: 'Cancel', 'Back', 'Next', and 'Finish'.

**Figure 1-17** Actuate Query—Schedule shows the Right now option

- Once, as shown in Figure 1-18, schedules a date and time at which to run the query. If you select Once, specify the date and time at which to run the query.

This screenshot is a close-up of the 'Scheduling Options:' section. The 'Once' radio button is selected. Below the radio buttons, there is a date field containing '10/13/2011' with a calendar icon to its right, followed by '(M/d/yyyy)'. This is followed by the word 'at', a time field containing '12:01 PM' with a clock icon to its right, and '(h:mm a)'.

**Figure 1-18** Actuate Query—Schedule shows the Once option

- Recurring, as shown in Figure 1-19, schedules the query to run regularly at a specified interval. If you select Recurring, specify the recurrence interval, the time at which to run the query, and the start and end dates to use.

This screenshot is a close-up of the 'Scheduling Options:' section. The 'Recurring' radio button is selected. Below the radio buttons, there is a dropdown menu showing 'Every Day' with a downward arrow, followed by 'at', a time field containing '12:01 PM' with a clock icon to its right, and '(h:mm a)'. Below this, there are two checked checkboxes: 'Starting' and 'Until'. The 'Starting' checkbox is followed by a date field containing '10/13/2011' with a calendar icon to its right, and '(M/d/yyyy)'. The 'Until' checkbox is followed by a date field containing '10/14/2011' with a calendar icon to its right, and '(M/d/yyyy)'.

**Figure 1-19** Actuate Query—Schedule shows the Recurring option

Choose Next.

Actuate Query Wizard—Finish appears, displaying the current settings for the query. The options available depend on the settings that the query developer specifies.

- 3 On Actuate Query—Finish, as shown in Figure 1-20, complete the following settings:
  - Specify a document name, version name, output location, and whether to create a new version of the file or replace the latest version. Information Console saves the output document as an Actuate Query Output file.
  - In Notification:

- ❑ To receive an e-mail notification when the job completes, select Send me an e-mail notification.
- ❑ To attach an output document to the e-mail, select a format for the attachment from the drop-down list. The available formats are PDF, Excel, PowerPoint, RTF, and Fully editable RTF.

1. Schedule 2. Finish

**Run and view the query**

Document name: Sales\_total\_customer\_names

Version name:

Output Location:  Home folder  
 Other (please specify) /Information Objects/S Browse...

If the File Already Exists:  Create a new version  
 Replace the latest version

Notification:  Send me an email notification with Attachment in PDF format

Submit

Back Next Close

**Figure 1-20** Actuate Query—Finish

- 4 To submit the job, choose Submit.

# Index

## Symbols

- < operator 15
- < > operator 15
- <= operator 15
- = operator 15
- > operator 15
- >= operator 15

## A

- adding
  - page headers 12
- analyzing data 7
- attachments 20

## B

- Browser (DHTML) option 7

## C

- changing
  - output formats 12
  - queries 17
  - sort order 11
- clock icon 18
- column headings 3
- columns
  - adding to queries 8
  - filtering data in 11
  - reordering 8
  - sorting on 10
- connections 2
- Content page (Query Wizard) 8
- counting data rows 10
- creating
  - queries 3, 7
- customizing
  - filters 11, 14

## D

- data
  - analyzing 7
  - summarizing 5, 9

- data filters
  - changing values for 11
  - customizing 11, 14
  - specifying values for 6, 11, 14
- data object instances 18, 19
- data types 7
- default values 11
- DHTML reports
  - viewing query output in 7
- display names 3

## E

- e.Analysis 7
- e-mail 20
- equals operator 15
- Excel spreadsheets
  - generating 7
- executing jobs 19
- executing queries 13, 17
- expression builder 11

## F

- field names 3
- fields
  - adding to queries 8
  - filtering data in 11
  - reordering 8
  - sorting on 10
- filters
  - changing values for 11
  - customizing 11, 14
  - specifying values for 6, 11, 14
- Filters page (Query Wizard) 11
- Finish page (Query Wizard) 12
- formats
  - setting query output 12

## G

- greater than operator 15
- greater than or equal to operator 15
- Groups page (Query Wizard) 9

## H

headers 12

## I

IN operator 16

Information Console 7, 17, 18

IS NOT NULL operator 15

IS NULL operator 15

## J

jobs 19

## L

less than operator 15

less than or equal to operator 15

LIKE operator 15

## M

Management Console 8, 17, 18

## N

naming queries 13

NOT LIKE operator 15

notifications 19

## O

operands 11

operators

adding to query statements 11, 14

output formats 12

## P

page headers 12

PDF files

writing query output to 7

predefined filters 11, 14

privileges 17

## Q

QBE expression builder 11

QBE expressions 11

queries

changing 17

creating 3, 7

filtering data with 6, 11, 14

grouping data in 9

naming 13

overview 17

running 13, 17, 19

saving 13

setting schedules for 18–20

sorting with 10

specifying output formats for 12

query operators 11, 14

Query Wizard 7, 8, 17, 18

## R

result sets 7

rows

counting 10

running queries 13, 17, 19

## S

saving

queries 13

Schedule page 19

schedules

creating 18

setting query 18–20

scheduling jobs 19

sending e-mail 20

Show row counts option 10

sort fields 10

sort order 10, 11

Sorting page (Query Wizard) 10

spreadsheets

generating 7

SQL statements

adding columns to 8

adding data filters to 6, 14

changing predefined filters in 11

creating multiple filters in 11

editing 17

removing columns from 8, 9

specifying sort order in 10

submitting jobs 20

summarizing data 5, 9

Summary page (Query Wizard) 9

## **T**

totals 10

## **W**

web pages

writing query output to 7

