Building Queries Using Web Intelligence
Query – HTML
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4 Building Queries Using Web Intelligence Query – HTML
Chapter 1

About Web Intelligence
How Web Intelligence performs business intelligence over the web

Web Intelligence provides business users an easy to use interactive and flexible user interface for building and analyzing reports on corporate data over the web, on secured intranets and extranets. The Web Intelligence software is installed by your administrator on a web server on your corporate network.

To use Web Intelligence from your local computer, you log into the business intelligence portal InfoView via your Internet browser. Then, depending on your security profile, you can interact with the reports in corporate documents or edit or build your own documents using a Web Intelligence report panel or query panel.
Interacting with Web Intelligence reports

Depending on your security profile and on how Web Intelligence is deployed across your organization, you can view, analyze, or enhance and modify the data displayed on reports.

Viewing and printing reports

Once logged into the business intelligence portal InfoView, you can access Web Intelligence documents and view reports. Onscreen navigation is made easy with page-to-page navigation buttons and a document map that allows you to jump from section to section or report to report.

The same document can provide the information adapted to each user due to prompts that request each user, who opens the document, to specify the data they want to return to the reports.

When you print reports, Web Intelligence automatically generates a copy of reports in Portable Document Format (PDF) format for optimum print quality.

Drilling results

Drilling on Web Intelligence reports in HTML or in Interactive format enables you to analyze the detailed data behind the displayed results. You can turn the report you are viewing into a drillable report or drill on a duplicate of the original report to retain a version of the results before your drill analysis.

Once you have found the information you need, you can save a snapshot of the drilled report to share the results of your analysis with other Web Intelligence users, or save the document in Excel or Portable Document (PDF) format to print or email to other business contacts.
Performing on-report analysis

Viewing Web Intelligence reports in Interactive view format enables you to enhance reports and fine-tune the data reports contain, to highlight the information that most interests you on demand.

On-Report Analysis is designed for:
• users who need to build queries and then want to build reports
• report consumers who need to manipulate the reports created by others

With On-Report Analysis you can:
• view document metadata to understand the data behind reports and see how reports are structured and filtered
• filter and sort results
• add new tables and charts
• add formulas and create variables
• format and change the layout of charts and tables
• slice and dice results by adding other data to charts and tables

Full information on how to use On-Report Analysis can be found in Performing On-Report Analysis with Web Intelligence.

Note: On-report analysis of Web Intelligence reports in Interactive view format is only available, if your administrator has deployed Web Intelligence in JSP mode.
Creating and editing Web Intelligence documents

You can create or edit Web Intelligence documents using one of several tools:

- Query – HTML
- Java Report Panel
- HTML Report Panel

This section explains the differences between each tool.

**Web Intelligence Query – HTML**

Designed for users requiring a pure HTML environment to build queries, Web Intelligence Query – HTML offers the ability to define the data content of documents on multiple data sources. You can use Query – HTML to create new documents from scratch or edit the queries in documents created using any of the other Web Intelligence tools.

Used together with On-Report Analysis, Query – HTML provides a complete solution for building queries and designing powerful reports in a pure HTML environment. Once you have run the queries to generate a standard report, you can leverage Web Intelligence On-Report Analysis features to format multiple reports, add formulas, and create variables.

**Note:** Web Intelligence Query – HTML and On-Report Analysis in Interactive view format are only available, if your administrator has deployed Web Intelligence in JSP mode.
Web Intelligence Java Report Panel

The Java Report Panel is designed for users who need more flexibility with designing report layout and defining formulas and variables. A graphical Formula Editor enables you to build formulas rapidly using drag-and-drop.

Note: The Web Intelligence Java Report Panel is available if your administrator has deployed Web Intelligence in ASP mode and if your administrator has deployed Web Intelligence in JSP mode.
Web Intelligence HTML Report Panel

Designed for users who need to build basic reports, the HTML Report Panel provides query and report features in a simple wizard-like interface. Each document is based on a single data source and can contain multiple reports, displaying different subsets of information.

In addition, the HTML Report Panel is 508 compliant and can be customized for specialized deployments.

Note: The Web Intelligence HTML Report Panel is only available, if your administrator has deployed Web Intelligence in JSP mode.

Related topics:
This guide tells you how to build queries using Web Intelligence Query – HTML. For information on performing on-report analysis on Web Intelligence reports, see Performing On-Report Analysis with Web Intelligence. For information on using the Web Intelligence Java Report Panel, see Building Reports Using the Web Intelligence Java Report Panel. For information on using the Web Intelligence HTML Report Panel, see Building Reports Using the Web Intelligence HTML Report Panel.
Accessing Web Intelligence via InfoView
Overview

You access Web Intelligence reports via InfoView, the corporate business intelligence portal.

This chapter tells you how to:

• log into InfoView
• log out of InfoView
Logging into InfoView

You access Web Intelligence by using your web browser to log into InfoView, the corporate business intelligence portal. Once you are in InfoView, you can analyze and enhance Web Intelligence reports.

Before you can use InfoView and Web Intelligence you need the following information:

- a URL to the InfoView server
- the InfoView server name and port number
- your login and password
- your authentication, which controls the InfoView resources available to you

Note: Contact your administrator for this information, if necessary.

To log into InfoView

1. Launch your web browser.
2. Point your browser to the InfoView bookmark or URL. The InfoView login page appears.
3. If the System box is blank, type the name of the InfoView server followed by a colon (:), and then type the port number.
   For example, if the name of the InfoView server is corpbusintell and the port number is 4200, then type: corpbusintell:4200
   Your administrator can provide you with this system information.
4. In the Username box, type your user name.
5. In the Password box, type your password.
6. In the Authentication box, select the authentication provided to you by your administrator.
7. Click Log On.
   The InfoView home page appears.
Logging out of InfoView

When you finish using InfoView or Web Intelligence you need to log out, instead of simply closing your web browser.

Logging out of InfoView:

• ensures that any preferences you modified during your InfoView session are saved

• lets your administrator track how many users are logged into the system at any given time and thus optimize InfoView and Web Intelligence performance

Note: Before logging out of InfoView, save any documents you have open.

To log out of InfoView

• Click the Logout button.

The login page appears. You are logged out of InfoView.
Setting your Web Intelligence options
Overview

Before you start to use Web Intelligence, you need to set your Web Intelligence Document Preferences appropriately to suit your query and reporting needs. This chapter explains how to set your:

• your Web Intelligence document editor to Query – HTML
• viewing options to enable on-report formatting, calculations, filters, and analysis on the fly
• drill options to perform slice-and-dice analysis on results
• setting your query building preferences
Setting your Web Intelligence document creation and query editor

To create new documents or edit queries in existing documents using Query – HTML, you need to verify your Web Intelligence Document Preferences are set accordingly. Information on how to do this is provided below.

**Note:** Query – HTML is only available, if you are using Web Intelligence deployed in JSP mode.

- **To select Query – HTML as your query editor**
  1. Click the **Preferences** button on the InfoView toolbar.
  2. Click the **Web Intelligence Document Preferences** tab. The **Web Intelligence Document Preferences** page appears.
  3. In the **Select a report panel** section, click **Query – HTML**.
  4. Click **OK**.

InfoView displays the page you were on previously.

To find out how to create documents, see "Creating documents" on page 31. To find out how to edit documents, see "Editing the queries in existing documents" on page 32.
Selecting Web Intelligence view formats

You can select different view formats for Web Intelligence documents depending on how you want to interact with the information displayed on the reports. You select your Web Intelligence view options in InfoView. When you modify your view options, the new settings are implemented the next time you open a Web Intelligence document.

**To select a format to view documents**

1. Click the **Preferences** button on the InfoView toolbar.
2. Click the **Web Intelligence Document Preferences** tab. The **Web Intelligence Document Preferences** page appears.
3. In the **Select a view format** section, select the view format you want. Use the following table to help you select the appropriate format:

<table>
<thead>
<tr>
<th>If you want to...</th>
<th>then select...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open reports, answer prompts, navigate reports, and/or perform drill analysis.</td>
<td>HTML</td>
</tr>
<tr>
<td>Apply filters, sorts, calculations, modify formatting and data displayed on tables and charts, and/or perform drill analysis. <strong>Note:</strong> If you are using Query – HTML to define queries, and you want to format reports based on those queries and add formulas and variables, select <strong>Interactive</strong>. For full information on how to design reports in Interactive view format, see <strong>Performing On-Report Analysis with Web Intelligence</strong>.</td>
<td>Interactive</td>
</tr>
<tr>
<td>View static reports,</td>
<td>Portable Document Format</td>
</tr>
</tbody>
</table>

**Note:** **Interactive** view format is only available if your administrator has deployed Web Intelligence in JSP mode.

**Note:** To open files in Portable Document Format (PDF), you need Adobe Acrobat Reader installed on your computer. You can download Acrobat Reader free from the Adobe web site (visit [www.adobe.com](http://www.adobe.com)).
4. Click **OK**.

Any documents you already have open are not affected by the new settings. The new settings are activated the next time you open a Web Intelligence document.
Selecting your Drill options

Drilling on reports lets you look deeper into data to discover the details behind a good or bad summary result displayed on a table, chart, or section. Before you begin a drill session, you can set your drill options in InfoView to specify how reports will change each time you drill. This section tells you:

- what drill options are available to you
- how to select the drill options appropriate for your analysis

Available drill options

This section describes the various options available to you when you perform drill analysis on Web Intelligence reports.

Start drill on the existing report or on a duplicate report

When you drill on a report, you can:

- **Start drill on the existing report** – the current report becomes drillable and when you end drill mode, the report displays the drilled values.

  Or

- **Start drill on a duplicate report** – InfoView creates a duplicate of the current report and you drill on the duplicate. This means you can compare the results of the original report with the results you discover during your drill analysis.

Being prompted if a drill action requires additional data

When you drill the results displayed on a Web Intelligence report, you may want to drill to higher- or lower-level information that isn’t included in the scope of analysis for the document. When this is the case, Web Intelligence needs to run a new query to retrieve the additional data from the data source. Since queries on large selections of data may take a long time to be completed, you can choose to be prompted with a message every time a new query is necessary. The prompt message asks you whether you want to run the additional query or not. In addition, the prompt lets you apply filters to the extra dimensions you include in the new query. This means you can restrict the size of the query to only the data necessary for your analysis.

**Note:** You need permission from your administrator to drill out of the scope of analysis during a drill session.
Synchronizing drill on all tables and charts in the report

Each table, chart, or free standing cell in a report represents a specific block of data. There are two ways to drill on a report that contains multiple blocks:

- synchronize drill on all report blocks
- drill on only the selected block

The following example shows how each option affects a report as you drill down on the Bahamas Beach resort in a table to analyze detailed results per service line.

In this example, **Synchronize drill on report blocks** is selected in your view options, so both the table and the chart display the drilled values:

<table>
<thead>
<tr>
<th>Service Line</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation</td>
<td>$2,500,000.00</td>
</tr>
<tr>
<td>Food &amp; Drinks</td>
<td>$600,000.00</td>
</tr>
<tr>
<td>Recreation</td>
<td>$120,000.00</td>
</tr>
</tbody>
</table>

In this example, **Synchronize drill on report blocks** is not selected in your view options so only the table displays the drilled values:

<table>
<thead>
<tr>
<th>Service Line</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation</td>
<td>$2,500,000.00</td>
</tr>
<tr>
<td>Food &amp; Drinks</td>
<td>$600,000.00</td>
</tr>
<tr>
<td>Recreation</td>
<td>$120,000.00</td>
</tr>
</tbody>
</table>
Showing or hiding the Drill toolbar

When you drill on a value displayed on a report, the **Drill toolbar** appears and displays the value on which you drilled. The value displayed on the toolbar filters the results displayed on the drilled report.

For example, if you drill on year 2001, the results displayed on the drilled table are Q1, Q2, Q3, and Q4 for year 2001. This means that the quarterly values you drilled to are **filtered** by 2001.

![Drill toolbar example](image)

**Note:** If the drilled report includes dimensions from multiple queries, a ToolTip appears when you rest your cursor on the value displayed on the filter. The ToolTip displays the name of the query and the dimension for the value.

The Drill toolbar allows you to select alternative values on the same level, in order to filter the results differently. For example, if you use the Drill toolbar illustrated above to select “2002,” the results displayed on the drilled table would be Q1, Q2, Q3, and Q4 for year 2002.

You can opt to hide the Drill toolbar when you start drill mode. The Drill toolbar is only useful if you want to select filters during your drill session.

Setting your drill options

You set your drill options in InfoView. When you change your drill options, the changes are implemented the next time you start Drill mode.

**To set your drill options**

1. On the InfoView toolbar, click **Preferences**.
2. Click the **Web Intelligence Document Preferences** tab.
   
   The **Web Intelligence Document Preferences** page appears.
3. In the **Select a view format** section, select **HTML** or **Interactive**.
   
   For information about the difference between these View formats, see “To select a format to view documents” on page 22.
4. In the **For each new drill session** section, choose whether to drill on the existing report or on a duplicate report:

<table>
<thead>
<tr>
<th>If you want Web Intelligence to...</th>
<th>then select...</th>
</tr>
</thead>
<tbody>
<tr>
<td>retain a copy of the original report, so that you can compare the drilled results to the results on the original report,</td>
<td>Start drill on a duplicate report</td>
</tr>
<tr>
<td>drill on the existing report, so that the original report becomes modified by your drill actions,</td>
<td>Start drill on the existing report</td>
</tr>
</tbody>
</table>

5. In the **General drill options** section, select the options to apply during your drill sessions:

<table>
<thead>
<tr>
<th>If you want Web Intelligence to...</th>
<th>then select...</th>
</tr>
</thead>
<tbody>
<tr>
<td>prompt you whenever a drill action requires a new query, so that Web Intelligence can extend the scope of analysis and add more data to reports,</td>
<td>Prompt if drill requires additional data</td>
</tr>
<tr>
<td>synchronize drilling on all report blocks,</td>
<td>Synchronize drill on report blocks</td>
</tr>
<tr>
<td>hide the Drill toolbar when you switch to drill mode,</td>
<td>Hide drill toolbar</td>
</tr>
</tbody>
</table>

6. To apply the new drill settings, click **OK**. The modifications are implemented the next time you open a Web Intelligence document and start Drill mode.

**Note:** There is an additional drill option, **Use query drill**, that you set at the document level, rather than in InfoView. **Query drill** is a special drill mode suited for drilling on aggregates in databases such as Oracle 9i OLAP. For more information, see the Performing On-Report Analysis with Web Intelligence guide.
Setting your query rules

You can set query rules that ensure Web Intelligence applies specific filter or prompt properties of your choice whenever you create a new filter or prompt on a query.

**Note:** Before you set your query rules, you need to select *Interactive* as your View format and open a Web Intelligence document. See “To select a format to view documents” on page 22.

1. To set your Query Rules
   1. With a Web Intelligence document open, click the arrow next to *View* on the main toolbar above the selected report.
   2. Click *Preferences*. The Preferences dialog box appears.
   3. Click the *Query Rules* tab.
   4. Use the following table to help you select the appropriate options:

<table>
<thead>
<tr>
<th>If you want to...</th>
<th>then select...</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Filter</strong> to be the option selected by default when you create a new filter or prompt,</td>
<td>a filter</td>
</tr>
<tr>
<td><strong>Prompt</strong> to be the option selected by default when you create a new filter or prompt and you want prompts to display a text box, so that users answering prompts need to type the value(s) they want to return to the reports,</td>
<td>a prompt without a List of Values</td>
</tr>
<tr>
<td><strong>Prompt</strong> to be the option selected by default when you create a new filter or prompt and you want prompts to display a List of Values, so that users answering prompts can select the value(s) they want to return to the reports,</td>
<td>a prompt with a list of values</td>
</tr>
</tbody>
</table>

5. Click *OK*. Web Intelligence applies the preferences you selected the next time you open a Web Intelligence document.
Creating new documents
Overview

You create Web Intelligence documents by building one or more queries. The queries define the data content of the document and its reports. You can edit the queries upon which a document is based at any time.

This chapter tells you how to:

• create a document
• edit the queries in an existing document

Note: Make sure the Query – HTML is selected on the Web Intelligence Document Preferences page in InfoView. To find out how to do this, see “To select Query – HTML as your query editor” on page 21.
Creating documents

You create Web Intelligence documents by first selecting a universe in InfoView. Each universe maps to a database containing corporate business information. When you connect to a universe, Web Intelligence automatically launches the document editor selected on the Web Intelligence Document Preferences page in InfoView. (For information on how to select the Query – HTML, see “To select Query – HTML as your query editor” on page 21).

To select a universe for a new document
2. Click the title of the universe on which you want to create a document.

Web Intelligence Query – HTML opens.

To see how to build documents using Web Intelligence Query – HTML, see “Working with queries” on page 35.
Editing the queries in existing documents

You can edit the queries upon which documents are based at any time. This enables you to modify the data definition behind reports as your corporate data and business needs evolve.

This section tells you how to switch to Edit Query mode while viewing reports.

To switch to Edit Query mode while viewing reports

1. Make sure you are logged into InfoView.
   For full information, see “To log into InfoView” on page 15.

2. On the InfoView home page, navigate to the document you want to open.
   You do this by clicking the folders in My Folders or Public Folders, or by entering a keyword or the title of the document in the Search box on the InfoView home page.

   The list of documents appears.

3. Click the document title.

4. If the document contains any prompts that need to be refreshed, you need to select the value(s) you want returned to the document, and then click Run Query.

   The results appear on the reports.

5. Click Edit Query.

   Query – HTML appears and displays the queries defined for the document.

   To find out how to modify the queries, see “Working with queries” on page 35.
Creating new documents

Editing the queries in existing documents
Working with queries
Naming queries

Renaming queries

By default, Web Intelligence Query – HTML names each query by a number in sequence. For example, the first query is named Query 1, the second query is named Query 2 and so on. You can rename queries with more meaningful names to reflect the data each query includes.

Limitations on query names

The maximum number of characters is 50.
The following character is forbidden: [
Two queries cannot have the same name. An error box appears if you try to rename a query and do not follow these rules.

To rename a query
1. Select the name of the query that you want to rename by right-clicking and then select Rename Query from the shortcut menu.
   This is in the left-hand, bottom corner of your query pane.

2. Type the new name.
3. Press the Enter key.
   Or
4. Select the query by double-clicking it.
5. Type the new name.
6. Press the Enter key.
   The new name appears on the Query tab.
Defining the data retrieved by queries

How objects map to data

Objects can represent different types of information:

<table>
<thead>
<tr>
<th>Object</th>
<th>Examples</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension</td>
<td>Country, Resort, Service Line</td>
<td>Retrieves the data that will provide the basis for analysis in a report. Dimension objects typically retrieve character-type data, for example; customer names, resort names, or dates.</td>
</tr>
<tr>
<td>Detail</td>
<td>Customer, Age, Phone Number, Address</td>
<td>Provides descriptive data about a dimension. A detail is always attached to the dimension for which it provides additional information. For example, Age is a detail object that is associated with Customer dimension. Address provides additional information on customers.</td>
</tr>
<tr>
<td>Measure</td>
<td>Revenue, Number of guests, Future guests</td>
<td>Retrieves numeric data that is the result of calculations on data in the database. For example; Revenue is the calculation of the number of items sold multiplied by item price. Measure objects are often located in a Measures class.</td>
</tr>
</tbody>
</table>

Classes and Subclasses

Objects are grouped into folders called classes. Each class can also contain one or more subclasses. Subclasses contain objects that are a further subcategory of the objects in the upper level of the class.

The role of classes is to organize the objects into logical groups. When you create queries on the universe, classes help you to find the objects that represent the information that you want to use in a query.
Classes and Objects are presented in a tree structure as follows:

- **Folder represents a class**
- **Each icon within a class represents an object**
- **Details are under dimensions**
- **Store details is a subclass of Store**

### To add an object to the query

- Select an object in the **Universe** pane and drag it over to the **Result Objects** pane.

The object appears in the **Result Objects** pane.

Or

Select an object and use the arrows to add an object to the **Result Objects** pane.

Or

Double click an object in the **Universe** pane.
To add all the objects in a class to a query

- Select a class and drag it to the Result Objects pane.

The class and all the objects appear in the Result Objects pane.

Or
Select a class and use the arrows to add an object to the Result Objects pane.
Or
Double click a class in the Universe pane.

To remove an object from a query

1. Select an object in the Result Objects pane.
2. Drag the object over to the Universe pane.

Here year is being removed.
To re-order an object on a query

1. Select an object in the Result Objects pane.

2. Drag the object to the left if you want it to be sorted first. Drag it to the right if you want it to be sorted last.

You will see a red line where you are about to move the object.

The next time you run the query the new order is taken into account in the query definition.

Or

Use the arrows to the right of the Result Objects pane:
Defining a scope of analysis

In a universe, the objects within each class are represented in a hierarchy. For example, a class called Time period contains the objects Year, Quarter, Month, and Week arranged in a hierarchy as follows:

At the top of the hierarchy is aggregate data with detailed data at the bottom.

Note: The hierarchy does not always correspond to the order of dimensions within a class. This is because the hierarchies can be customized at the universe level. Customizing hierarchies is done using BusinessObjects Designer.

What is a scope of analysis?

The scope of analysis for a query is extra data that you can retrieve from the database to give more details on the results returned by each of the objects in a query. This extra data does not appear in the initial result report, but it remains available in the data cube, so you can pull this data into the report to allow you to access more detail at any time. This process of refining the data to lower levels of detail is called drilling down on an object.

In the universe, the scope of analysis corresponds to the hierarchical levels below the object selected for a query. For example, a scope of analysis of one level down for the object Year, would include the object Quarter, which appears immediately under Year.

You can set this level when you build a query. It allows objects lower down the hierarchy to be included in the query, without them appearing in the Results Objects pane. The hierarchies in a universe allow you to choose your scope of analysis, and correspondingly the level of drill available.

You can also create a custom scope of analysis by selecting specific dimensions for the Scope of Analysis pane.

Note: You cannot set the scope of analysis when working in query drill mode because this drill mode causes Web Intelligence to modify the scope dynamically in response to drill actions. For more information on query drill, see the Performing On-Report Analysis with Web Intelligence guide.
Setting levels of analysis

When you set the scope of analysis for a query, you want to include objects one or more levels down the hierarchy tree, for each dimension that you have added to the Result Objects pane.

When you run the query, the objects included in the scope of analysis are returned in the cube, but are not projected onto the reports. They can be added to the reports at any time, without having to run the query again.

How many scope of analysis levels can you set?

You can set the following levels for scope of analysis:

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Only the objects that appear in the Results Objects pane are included in the query.</td>
</tr>
<tr>
<td>One level down</td>
<td>For each object in the Results pane, one, two, or three objects lower down the hierarchy tree are included in the query. The data from these objects is stored in the cube until you add them to the document.</td>
</tr>
<tr>
<td>Two levels down</td>
<td></td>
</tr>
<tr>
<td>Three levels down</td>
<td></td>
</tr>
</tbody>
</table>

Including a scope of analysis in a document increases the document size significantly. This is because the data necessary for the scope you specify is saved with the document, even though it is not visible in the reports unless you start drill mode and drill down to the data to display the corresponding values.

In order to minimize the size of documents and optimize performance, we recommend that you only include a scope of analysis in documents where you are certain that users will need to drill.

We suggest the following method because it will be easier for you to set the scope of analysis seeing the hierarchy of the classes and objects.
To set the scope of analysis

1. Click **Query Properties** in the Query toolbar. The Query properties window appears.

2. Choose: **None** (the default), **One Level**, **Two Levels**, or **Three Levels**.
Viewing the SQL generated by queries

Queries are sent to the databases in a language called SQL (Structured Query Language). However, when you use Web Intelligence you do not have to know any SQL.

**View SQL** launches the SQL Viewer. The viewer displays the SQL generated by Web Intelligence for the query.

▶ **To view the SQL generated by a query**

1. Click **View SQL** on the Query toolbar.

   The SQL Viewer window appears:

   ![SQL Viewer](image)

   In this window you can inspect the SQL behind the query that you have made.
Setting query properties

You can set properties for the query that can optimize the time taken for the query to run or the amount of data returned, set security options, specify the order of prompts in the report, and control potential ambiguous query results. Properties are grouped together in sections on the Query Properties page in the Result Objects pane.

You can set the following query properties:

<table>
<thead>
<tr>
<th>Query Property Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Limits</strong></td>
<td></td>
</tr>
<tr>
<td>* Max rows retrieved</td>
<td>Maximum number of rows of data that can be returned when a query is run. If you only need a certain amount of data, you can set this value to limit the number of rows of data that is returned to your document. This prevents a query from taking too much time or from returning necessary data to the document. <strong>Note:</strong> The Max rows retrieved setting can be overridden by the limits set by your administrator in your security profile. For example, if you set the Max rows retrieved setting to 400 rows, but your security profile limits you to 200 rows, only 200 rows of data will be retrieved when you run the query.</td>
</tr>
<tr>
<td>* Max retrieval time</td>
<td>Maximum time that a query can run before the query is stopped. This can be useful when a query is taking too long due to an excess of data, or network problems. You can set a time limit so a query can stop within a reasonable time.</td>
</tr>
<tr>
<td><strong>Data</strong></td>
<td></td>
</tr>
<tr>
<td>* Retrieve duplicate rows</td>
<td>In a database, the same data may be repeated over many rows. You can choose to have these repeated rows returned in a query, or to have only unique rows returned.</td>
</tr>
</tbody>
</table>
## Setting query properties

<table>
<thead>
<tr>
<th>Query Property</th>
<th>Option and Description</th>
</tr>
</thead>
</table>
| **Security**   | • Allow other users to edit all queries  
                  When selected, other users who have the appropriate editing rights can access Query View and modify the queries in the document. When cleared, only the report creator can modify the queries. This option is selected by default. Unlike the other query properties, which only apply to the selected query, this option applies to all of the queries in the document. |
| **Prompt Order** | • Prompts are listed in the list. You can use the up and down arrows to move a prompt up or down the list to change the order. |
| **Contexts**   | • Reset contexts on refresh  
                  When selected, you are prompted to choose a context each time a query requiring a context is run. When unselected, Web Intelligence retains the context specified the first time you run the query. (Contexts are described in the section “What is a context?” on page 50) |

► To limit the number of rows returned to reports
1. Click **Query Properties** in the Query toolbar.
   The Query properties window appears.
2. Type the number of maximum rows you want to be retrieved.

![Query properties window]

► To limit the run time for queries
1. Click **Query Properties** in the Query toolbar.
   The Query properties window appears.
2. Type a **Maximum retrieval time** in seconds.
Retrieving duplicate rows

In a database, the same data can be repeated over many rows. You can choose to have these repeated rows returned in a query or to have only unique rows returned.

To retrieve duplicate rows
1. Click Query Properties in the Query toolbar.
   The Query Properties window appears.
2. Check the check box Retrieve duplicate rows.

Running a simple query

Once you have built your query by adding the required objects to the Result Objects pane, set the scope of analysis, and defined query properties, you are ready to run the query.

When you run a query, the universe asks the database to find the data that corresponds to the demands of each of the objects in the query. You run a query by clicking Run Query.
Setting security for the queries in a document

To prevent other users from editing the queries in a document

1. Click Query properties.

2. Clear the Allow other users to edit all queries check box.
Running queries

Running queries for the first time

The first time you run a query, the results will be displayed in a report using a default format. Later, depending on the rights you have been assigned you may be able to change the look of this report.

Consult the *Performing On-Report Analysis with Web Intelligence* for information on formatting reports and analyzing results.

Canceling queries

After you have run a query, you can cancel the query by clicking the **Cancel** button in the right-hand corner of the screen.

1. Click the **Cancel** button to cancel the report.

You will be taken back to the InfoView home page.
Working with query contexts

When you create a query or refresh a report, you may be asked to choose a context before the query can run. In a universe, contexts are implemented to avoid ambiguous queries. This section describes what is an ambiguous query, how contexts are used, and explains how you can choose a context to ensure that your query returns relevant information.

What is an ambiguous query?

An ambiguous query is a query that contains one or more objects that can potentially return two different types of information.

In a universe, certain dimensions may have values that are used for two different purposes in the database. For example, the [Country] dimension in the query below can return two types of information:

- Customers and the country in which they spent their vacation.
- Customers and the country for which they have made their reservation.

This role that Country plays in this query is ambiguous. A country value can be either the country where a vacation was sold, or a country where a vacation is reserved. One is existing information (sales), and the other is future information (reservations).

To avoid ambiguities in a query, the universe designer identifies the different ways that objects can be used in the universe, and implements restrictions on how these objects can be combined. These restrictions are called contexts.

What is a context?

A context is a defined group of objects that share a common business purpose. This business purpose is usually the type of information that these related objects represent. For example, a sales context is a grouping of all the objects that can be used to create sales queries. A reservations context is a grouping of all the objects that can be used in reservation queries. Contexts are defined in a universe by the universe designer.
You can combine any object within the same context to create a query. You can also combine objects in different contexts. If you use an object that is common to both contexts, Web Intelligence will try to determine the context that best fits the other objects in the query.

If it cannot determine a context, you are prompted to choose the context that you want to apply to the query. For example, When you run the query above, a dialog box appears asking you to choose whether you want the country information to be sales or reservations information.

### Defining how contexts are used in a query

In Web Intelligence you can customize how contexts are used in a report.

You can set the following options to determine how contexts are used when you refresh a report:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reset contexts on refresh</strong></td>
<td>When selected, you are prompted to choose a context each time a query requiring a context is run. When cleared, a query is run automatically using the context used on previous refresh.</td>
</tr>
<tr>
<td><strong>Clear contexts</strong></td>
<td>Clears the contexts listed in the list after the first refresh.</td>
</tr>
</tbody>
</table>

When you run a query, or refresh a report that can result in an ambiguous query, a dialog box appears asking you to select a context.
To select context properties
1. Verify that you are in Query View.
2. Click the Properties tab.
   The Query Properties options appear.
3. In the Context section of the Query Properties, select or clear the Reset contexts on refresh check box.
   Or
   If you want to remove all existing contexts saved in the report, click the Clear contexts button.
   This does not remove the context from the universe.
   When Reset contexts on refresh is selected, you are prompted to choose a context each time a query requiring a context is run. When unselected, Web Intelligence retains the context specified the first time you run the query.
   Note: Refresh is the same action as a Run Query. That is, Web Intelligence retrieves the data from the database as defined in the queries and returns the corresponding results to the reports.

To select a context
1. From the Select a Context box, click one of the listed contexts.
   This is the context that contains the data that is relevant to your query.
2. Click Finish.
   The query is run for the selected context.
Interrupting queries

When you interrupt a query, only partial data is returned to the document. The values displayed in the document do not accurately reflect the definition in the query. Before returning the data to the document, Web Intelligence requests you to choose which version of the data you want retrieved.

To interrupt a query:
1. On the Waiting - Refresh Data dialog box, click Cancel.

The Waiting - Refresh Data dialog box appears when you click Run Query to retrieve the latest values from the database to a document. The Interrupt Data Retrieval dialog box appears.

2. Click OK.

Web Intelligence displays the results on the reports, according to the option you selected.
5 | Working with queries

Interrupting queries
Including multiple queries
Overview

This chapter tells you how you can include multiple queries in a single document. It includes the following information:

• about multiple queries
• defining multiple queries in a document
• adding a query
• duplicating a query
• removing a query

Note: This chapter tells you how to add queries to documents that already include a first query. For information about creating new documents and building the first query, see Chapter 5: Working with queries.

About multiple queries

You can include one or multiple queries in a single HTML Query Panel document. When you include multiple queries, those queries can be based on a single universe or on multiple universes available in InfoView.

Example: Include product sales data and customer data in the same document

In this example, your corporate data for product line sales is available on one universe and data on customers is available on another universe. You want to present product line sales results and information on customer age groups in the same report. To do this, you create a single document that includes two queries; one query on each universe. You can then include and format results from both queries on the same report.

Defining multiple queries in a single document is necessary when the data you want to include in a document is available on multiple universes, or when you want to create several differently-focused queries on the same universe. You can define multiple queries when you can build a new document or add more queries to an existing document. You can present the information from all of the queries on a single report or on multiple reports in the same document.

This section of this chapter tells you how to:

• add a new query
• rename a query
• duplicate a query

This chapter tells you how to add queries to documents that already include a first query. For information about creating new documents and building the first query, see “Working with queries” on page 35.

The maximum number of queries supported in a document is 15.

**Note:** You can synchronize queries in a document by merging them on common dimensions to create merged dimensions. Synchronizing queries allows you to include objects from different queries in the same report block. For more information, see the chapter “Merging Dimensions from Multiple Data Providers” in the *Performing On-Report Analysis with Web Intelligence* guide.
Working with multiple queries

Adding a query

1. Click **Add a Query**.

   The **Add Query** window appears.

2. Select the universe you want to use to build your report.
   You can create a new query on a universe already used in the document or select a different universe.
   By default, the “Used in Current Document” is the first one displayed.

3. Click **OK**.

   The new query pane appears. The Query tab for the new query displays the default name for queries: Query followed by a number that indicates the total number of queries in the document. You can rename the query with a more meaningful name now or later. (See “Renaming queries” on page 36.)
4. Define the objects, filters, scope of analysis, and properties you want for the query.
   The data content, scope of analysis, and filters you define here will only apply to the selected query. The query properties you define only apply to the selected query.
   Or
   Select the query you want to add by right-clicking the appropriate Query tab at the bottom of the report panel.

5. Select Add.
   The Add Query window appears.

6. Select the universe you want to use to build your report.
   You can create a new query on a universe already used in the document or select a different universe.
   By default, the "Used in Current Document" is the first one displayed.

7. Click OK.
   The new query pane appears. The Query tab for the new query displays the default name for queries: Query followed by a number that indicates the total number of queries in the document. You can rename the query with a more meaningful name now or later. (See “Renaming queries” on page 36.)

8. Define the objects, filters, scope of analysis, and properties you want for the query.
   The data content, scope of analysis, and filters you define here will only apply to the selected query. The query properties you define only apply to the selected query.
   See “To add an object to the query” on page 38, “To set the scope of analysis” on page 43, and “Setting query properties” on page 45. For more information on query filters, see “Filtering queries” on page 63.
Duplicating a query

If you want to build a different query on a universe already included in the document, you can duplicate the existing query on that universe and then modify it, instead of starting from scratch.

To duplicate a query
1. Select the query you want to duplicate by right-clicking the appropriate Query tab at the bottom of the report panel.
2. Select Duplicate. The HTML Query Panel creates a duplicate of the selected query and adds it to the report panel.
   You can edit the data definition of the duplicate query.

Removing a query

When you remove a query, the other queries remain. If you want to remove them all you must remove them one at a time.

To remove a specific query from a document
1. Select a the query you want to remove by right-clicking the appropriate Query tab at the bottom of the report panel.
2. Select Remove. A dialog box appears confirming that you want to remove this query.
3. Choose Yes to remove the query.
Running queries in multi-query documents

Running all queries

- **To run multiple queries**
  - Click Run Query.

  The **Waiting - Refresh Data** progress window opens.

  ![Waiting - Refresh Data progress window]

  **Note:** It is not possible to run an individual query when a document contains multiple queries.
Prioritizing queries in a document

You may want to sort information so that it is displayed differently in the final report. For instance, you can sort your revenues by year and then quarter. But you may be more interested in seeing the differences between quarters within these years. You would put quarters before year in order to get this type of sort.

To prioritize the order of prompts
1. Drag the objects and place them in the order that you want them displayed in the report.
   When you click Run Query, the prompts display in the new order you specified.
Filtering queries
Overview

You limit the data returned to the document by applying filters when you define the query. Using query filters enables you to secure the data that you don’t want specific user groups to see and limits the size of the documents that are stored on your network. When you run the query on the document data, the Web Intelligence returns only the values that meet the query filter definitions.
How do query filters work?

When you build a query on a universe, you can filter the query to limit the data Web Intelligence returns to the document. Query filters retrieve a sub-set of the data from the database and return the corresponding values to the document. You define filters that match the criteria of specific business questions. For example, you can filter the [Year] dimension to view only sales revenue for Year 2003; or filter the [Annual Income] dimension to view only customers whose annual income is equal to or greater than $1.5M.

Including query filters on the data definition of the query enables you to:

• retrieve only the data you need to answer a specific business question
• hide the data you don’t want specific users to see when they access the document
• minimize the quantity of data returned to the document to optimize performance

Example: In 4Q 2002, which stores in my sales region gained margins above $130K?

As Regional Marketing Manager for Texas, you are only interested in analyzing margins for Texas, but the sales universe includes data US-wide. In addition, you only want to view information for stores where margins reached over your 4Q 2002 quarterly target figure: $130K. To create a document with only the information you need, you apply a filter on the [State], [Year], and [Quarter] dimensions and a filter on the [Margin] measure:
To avoid displaying the filtered values Texas, 2002, and Q4 in the table columns Year, Quarter, and State, you exclude the [Year], [Quarter], and [State] objects from the Result Objects pane. When you generate the report, the report values correspond to Texas stores with 4Q 2002 margins greater than or equal to $130K:

<table>
<thead>
<tr>
<th>Store name</th>
<th>Sales revenue</th>
<th>Margin</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-Fashion Houston</td>
<td>$307,914</td>
<td>$133,802</td>
</tr>
<tr>
<td>e-Fashion Houston Leighton</td>
<td>$315,282</td>
<td>$136,055</td>
</tr>
</tbody>
</table>

This enables you to filter the report for the specific values that interest you and to minimize the values displayed in the table.

**The difference between query filters and report filters**

You can apply filters at two levels within a document:
- query filters – these filters are defined on the query; they limit the data retrieved from the data source and returned to the Web Intelligence document
- report filters – these filters limit the values displayed on reports, tables, charts, sections within the document, but they don’t modify the data that is retrieved from the data source; they simply hide values at the report level
Query filters

You define query filters in the Query Filters Pane.

Users without the security profile to edit the query cannot modify the query filters you define. This ensures that the data saved with a document is appropriate for those who view or analyze the data within that document.

Tip: Query filters decrease the time it takes to run the reports in the document and limit the size of the document to the data relevant to the users who consult it. Query filters also ensure document security.

Report filters

Filters you apply to the data displayed in the report(s) are called report filters. You use report filters to limit the values displayed in the report(s) within a document. You can filter each report to display a different subset of the same data. The data hidden by the report filters remains saved with the Web Intelligence document. You can modify the report filters to display different data in the report or remove the report filters altogether to display all the data defined in the query.

Note: When you add a report filter, it is possible to create an aggregation context that Web Intelligence is unable to process because you have made some of the objects in the report incompatible. (See “About incompatible objects in queries” on page 84.)
What makes up a query filter?

To create a filter, you need to specify three elements:

- a filtered object
- an operator
- a value(s)

**Example:** Filtering the data source to retrieve only values for the Accessories product line

For example, to display data only for the Accessories product line, you select:

- **Operator:** Equal to
- **Filtered object:** [Lines]
- **Value:** Accessories

When you run the query, Web Intelligence applies the operator to the filtered object and retrieves the value(s) from the database that correspond to the value(s) you specified.

You can filter multiple objects in a query. For example, you can create another filter on the [Sales Revenue] measure to focus your data to a more specific range of results:

- **Filtered object:** [Lines]
- **Operator:** Equal to Accessories
- **Value:** Accessories

When you run the report again, Web Intelligence displays the range of values for the lines you specified in the filter.
What types of query filter can you create?

You can define custom query filters on any dimension, measure, or detail object listed in the Universe Pane. You can also use predefined filters created by your administrator at the universe level. Predefined filters appear with the universe objects and are indicated by the filter icon:

For example, you can filter the [Year] dimension to return values for a specific year, filter the [Revenue] measure to return values for a range of revenue figures, or filter the [Postal Code] detail to return values for a specific postal area. For an illustrated description and examples of dimensions, measures, and details, see “Defining the data retrieved by queries” on page 37.

Note: Your administrator can prevent objects from being filtered. If you create filters on these objects, when you try to run the query a warning appears listing the filters that you cannot use. You need to remove these filters from the query in order to run the query.

Note: Some documents created using the Java Report Panel include advanced filters. Although you can view these filters in Query – HTML you cannot edit them.
Types of query filters

Three types of filters

You can apply three types of filters to queries when you build queries using the Query – HTML:

• **predefined filters** – created by your administrator
• **custom filters** – you define on the query
• **prompts** – you define these dynamic filters to display a question or a list of values so you or other users can select different filter value(s) at each run query

You can combine all three types of filters on a single query.

This chapter explains how to use the following two filter types:

• predefined filters
• custom filters

For information on creating prompts, see “Adding prompts to documents” on page 96.

Tip: Use query filters systematically when you create Web Intelligence documents to:

• ensure the document data is relevant to your analysis
• optimize the time it takes to return the data to the reports in documents
• minimize the size of documents stored on your system
Adding query filters

Selecting a predefined query filter

Predefined filters are a method of making the specific data you most typically need for reports permanently available in Web Intelligence. They are created by an administrator and saved with the universe. Predefined filters often contain complex expressions that require a detailed knowledge of the database structure. Including predefined filters on the universe means you don't need to create the same custom filters every time you create new Web Intelligence documents based on the same universe.

To select a predefined query filter
1. Double-click the predefined filter.  
   Or  
   Select the filter and use the arrows to move it.  
   Or  
   Drag the predefined filter to the Query Filters pane.  
   The predefined filter appears on the Query Filters pane.  

When you run the query, the data corresponding to the query filter(s) you selected is returned to the report(s).
Note: Predefined filters are created and edited by your administrator. As a Web Intelligence user, you cannot view the component parts of predefined filters or edit predefined filters.

Defining a quick query filter

Quick filters allow you to quickly define the value(s) you want to retrieve for a specific object without launching the Filter Editor. By default, Quick filters use the Equal to operator if you select a single value or the In list operator if you select multiple values.

For example:

- If you select the [Payment Status] dimension and the value “unpaid” you create the filter:
  
  [Payment Status] Equal to “unpaid”

- If you select the [Country] dimension and the values US, Japan, Germany, you create the filter:
  
  [Country] In list “US;Japan;Germany”

To create a query filter using the quick filter option

1. In the Universe pane, select the object you want to filter and drag it to the Result Objects pane.

2. Reselect the object on the Result Objects pane and click the Add Quick Filter button on the Report toolbar.
   
   The List of Values dialog box appears. The values for the selected object are listed.
3. Select the value(s) you want to retrieve from the database.
   For example, to filter the query for values in Q1, select the [Quarter] dimension, then select Q1 from the list of values.

4. Click OK.
   The new filter appears on the Query Filters pane.
   When you run the query, Web Intelligence retrieves only the values that correspond to the filter.
   You can apply multiple filters to the same query. See “You can search the list of values at any time by typing your search in the box beneath the list of values and clicking the button next to the box to select the search type (Normal - case insensitive; Match case - case sensitive) from the menu.” on page 78.
   For information about editing and removing query filters, see “Removing query filters” on page 83.

**Building a custom filter**

You create custom query filters to limit document data to information corresponding to:

- a specific business question
- the business information needs of a specific group of users

For example, you can create custom filters to retrieve sales results data for specific dates, products, or services, or to view customer information only for customers who are high wage earners or who live in a particular region.
Which operator should I choose?

It is important to understand the effect of each operator available to you when you define a filter. The table below lists the operators available for query filters and provides an example of each operator in the context of a business question:

<table>
<thead>
<tr>
<th>To obtain data...</th>
<th>for example...</th>
<th>select...</th>
<th>to create the filter...</th>
</tr>
</thead>
<tbody>
<tr>
<td>equal to a value you specify,</td>
<td>retrieve data for the US only,</td>
<td>Equal to</td>
<td>[Country] Equal to US,</td>
</tr>
<tr>
<td>different from a value you specify,</td>
<td>retrieve data for all quarters except Q4,</td>
<td>Different from</td>
<td>[Quarter] Different from Q4</td>
</tr>
<tr>
<td>greater than a value you specify,</td>
<td>retrieve data for customers aged over 60,</td>
<td>Greater than</td>
<td>[Customer Age] Greater than 60</td>
</tr>
<tr>
<td>greater than or equal to a value you specify,</td>
<td>retrieve data for revenue starting from $1.5M upward,</td>
<td>Greater than or equal to</td>
<td>[Revenue] Greater than or equal to 1000500</td>
</tr>
<tr>
<td>lower than a value you specify,</td>
<td>retrieve data for exam grades below 40,</td>
<td>Less than</td>
<td>[Exam Grade] Less than 40</td>
</tr>
<tr>
<td>lower than or equal to a value you specify,</td>
<td>customers whose age is 30 or less,</td>
<td>Less than or equal to</td>
<td>[Age] Less than or equal to 30</td>
</tr>
<tr>
<td>between two values you specify that includes those two values,</td>
<td>weeks starting at week 25 and finishing at 36 (including week 25 and week 36),</td>
<td>Between</td>
<td>[Weeks] Between 25 and 36</td>
</tr>
<tr>
<td>outside the range of two values you specify,</td>
<td>all the weeks of the year, except for weeks 25 through 36 (week 25 and week 36 are not included),</td>
<td>Not between</td>
<td>[Weeks] Not Between 25 and 36</td>
</tr>
<tr>
<td>the same as several values you specify,</td>
<td>you only want to retrieve data for the following countries: the US, Japan, and the UK,</td>
<td>In list</td>
<td>[Country] In list ‘US; Japan; UK’</td>
</tr>
</tbody>
</table>
### Filtering queries

**Adding query filters**

<table>
<thead>
<tr>
<th>To obtain data...</th>
<th>for example...</th>
<th>select...</th>
<th>to create the filter...</th>
</tr>
</thead>
<tbody>
<tr>
<td>different from the multiple values you specify, you don’t want to retrieve data for the following countries: the US, Japan, and the UK,</td>
<td></td>
<td>Not in list</td>
<td>[Country] Not in list ‘US; Japan; UK’</td>
</tr>
<tr>
<td>for which there is no value entered on the database, customers without children (the children column on the database has Null as the data entry),</td>
<td></td>
<td>Is null</td>
<td>[Children] Is null</td>
</tr>
<tr>
<td>for which a value was entered on the database, customers with children (the children column on the database does not have Null as the data entry),</td>
<td></td>
<td>Is not Null</td>
<td>[Children] Is not Null</td>
</tr>
<tr>
<td>that includes a specific string, customers whose date of birth is 1972,</td>
<td></td>
<td>Matches pattern</td>
<td>[DOB] Matches pattern, ‘72’</td>
</tr>
<tr>
<td>that doesn’t include a specific string, customers whose date of birth is not 1972,</td>
<td></td>
<td>Different from pattern</td>
<td>[DOB] Different from pattern, ‘72’</td>
</tr>
<tr>
<td>that corresponds to two values you specify, telco customers who have both a fixed telephone and a mobile phone,</td>
<td></td>
<td>Both</td>
<td>[Account Type] Both &quot;fixed&quot; and &quot;mobile&quot;</td>
</tr>
<tr>
<td>that corresponds to one value you specify and does not correspond to another value you specify</td>
<td></td>
<td>Except</td>
<td>[Account Type] &quot;fixed&quot; Except &quot;mobile&quot;</td>
</tr>
</tbody>
</table>
The difference between Different from, Not in List, and Except operators

Different from, Not in list, and Except are all operators that exclude certain data from your query results. For example, you could use this query filter to obtain a list of customers who have not bought accessories:

However, the filter illustrated above would not exclude customers who had bought accessories, if these customers had also bought other line products from your company. The same is true if you use the Not in list operator.

If you used Except, the query would exclude all customers who had bought accessories, whether they had bought other line products from your company or not.

How do I specify the value(s)?

When you define query filters, you specify the value(s) you want Web Intelligence to retrieve from the database and return to the document. For example, if you want to limit the document data to data for one or more countries, the value(s) you define will be the names of those countries, such as the US and Japan.

You can either type a constant or select value(s) from list.

The following table gives examples of when it is more efficient to type a constant or select value(s) from list:

<table>
<thead>
<tr>
<th>If...</th>
<th>for example...</th>
<th>then...</th>
</tr>
</thead>
<tbody>
<tr>
<td>the list of values on the dimension or detail you are filtering is long and you are sure of how to spell the value you want to filter;</td>
<td>names of months or numbers for specific years,</td>
<td>type a constant.</td>
</tr>
<tr>
<td>you are not sure how to spell the value(s) you want to filter;</td>
<td>customer names or product lines, which can change frequently and include unusual spellings,</td>
<td>select value(s) from the List of Values.</td>
</tr>
</tbody>
</table>
To define a custom query filter

1. Drag the object you want to filter to the Query Filters pane.
   Or
   Select the object in the Universe pane and use the arrows to move it onto the Query Filters pane.

2. Click Filter.

3. Choose the Operator. (See “Which operator should I choose?” on page 74). In this example, Lines: In List: is being changed to Lines: Equal to.

4. Click Update Filter.
   The next time you run your query this new filter will be taken into account.

Hierarchical lists of values in query filters

If you include an object that is defined with a hierarchical list of values in a query filter, Web Intelligence displays the list of values in a display similar to the display of cascading prompts when you click Values to select the values on which you want to filter.

Note: The universe designer defines lists of values as hierarchical in the universe on which your query is based.

Example: Using an object with a hierarchical list of values in a query filter

In this example you want to filter a query on the City object. The object list of values is defined in the underlying list of values as a hierarchical list encompassing the city, its region, and the region’s country.
You place the City object in the Query Filters pane, select the In List operator, and click **Values**. Web Intelligence displays the object in its hierarchical list.

When you select the Country, Web Intelligence restricts the list of regions to the regions in the selected country. When you select the region, Web Intelligence restricts the list of cities (in the list of city values below the cascading prompts) to the cities in the region. As a result, you can navigate easily to the cities you are looking for, without the need to search the entire list of cities.

**Note:** You can search the list of values at any time by typing your search in the box beneath the list of values and clicking the button next to the box to select the search type (**Normal** - case insensitive; **Match case** - case sensitive) from the menu.

**Combining query filters**

Typical business questions require to retrieve information that matches more than one criteria. For example, if you are analyzing customer services data, you will most likely want to focus on customers for a specific time period and also for a specific region, and probably also for a specific level of customer service contract. With HTML Query Panel, you retrieve data that answers several criteria like this by combining filters in the same query.
Example: Analyze sales revenue this year at stores where the floor size is over 4,000 square feet and sales revenue figures are equal to or less than $1.5M

In this example, you are an operations manager for a retail chain. You want to analyze information about the large retail stores in your chain that are making less than the sales revenue figure your company has set as the target.

To do this you add a predefined filter on the [Year] dimension to specify that you only want to retrieve values for this year. Then you create a second filter on the [Sales Floor Size] dimension to specify that you only want to retrieve data for stores where the floor size is greater than 4,000 square feet. After this, you create a third filter on the [Sales Revenue] measure to specify that you only want to retrieve data for stores where the sales revenue figures are equal to or less than $1.5M. Finally, you combine these three filters with the And operator:

When you run the query, only data for stores that satisfy all three criteria will be returned to the report(s).

To combine query filters
1. Create each filter.
2. Add each to the Query Filters pane.
You view the filters on the query in the Query Filters pane.
By default Web Intelligence combines the filters with the And operator:

![Query Filters]

3. You can leave the And operator or change the operator to Or.
This table explains the difference between the And and the Or operators:

<table>
<thead>
<tr>
<th>You want to retrieve...</th>
<th>for example...</th>
<th>select...</th>
</tr>
</thead>
<tbody>
<tr>
<td>data true for both filters,</td>
<td>customers who ordered supplies in Q1 and who are based in the US (the data you retrieve will include: US customers who placed orders in Q1),</td>
<td>And</td>
</tr>
<tr>
<td>data true for any one of the filters,</td>
<td>customers who ordered supplies in: Q1 or who are based in the US (the data you retrieve will include: worldwide customers who placed orders in Q1 and US customers who placed orders during any quarter),</td>
<td>Or</td>
</tr>
</tbody>
</table>

4. If necessary, change the operator to Or by double-clicking the And operator:

![Query Filters]

Or now displays as the operator.
Using And and Or

You can retrieve data that answers either the criteria specified in one filter or the criteria specified in the other filter(s). You can combine the first filter with either the second or third filter by using And and Or as follows:

In this case, HTML Query Panel retrieves data that corresponds to:
- the first filter – [Country] In list Japan
- also corresponds to either
  - the second filter – [Quarter] In List Q4
  - or
  - the third filter – [Revenue] Greater than $1M

Using Or and And

You can reverse the operators and combine the same three filters as follows:

In this case, HTML Query Panel retrieves data that corresponds to:
- the first filter – [Country] In list Japan
- or that corresponds to
- both the second filter – [Quarter] In List Q4 and the third filter – [Revenue] Greater than $1M
Filtering queries

Adding query filters

To combine simple filters

1. Create each query filter.
   By default HTML Query Panel combines the filters and prompts with the And operator.

2. You can leave the And operator or click the operator to change it to Or:

   ![Filtering example](image)

   3. To add levels to the filter, click the Nested Filter icon.
   4. To nest a filter under another filter or prompt, select the filter you want to nest and drag it onto the filter you want to group it with.

   ![Filtering example](image)
   
   HTML Query Panel groups the two filters and nests the grouped filters beneath the other filter(s).

5. If necessary, click the And or Or operator to change the operator.
   When you run the query, Web Intelligence filters the data according to the query filters you defined.
Removing query filters

You can remove any of the filters defined on the query.

► To remove a query filter
1. Drag the filter you want to remove and drop it onto the Universe pane.
   Or
   Select the filter, then press the Delete key.
   Or
   Move it back to the Universe pane with the << arrows.

The filter is removed from the query definition and no longer appears on the Query Filters pane. When you click Run Query to regenerate the document, the results displayed in the report(s) are no longer filtered.
About incompatible objects in queries

Sometimes it is not possible to use certain combinations of objects in queries. This situation arises when objects bear no relationship to one another. These objects are called *incompatible objects*.

For example, the Island Resorts Marketing universe contains the [Reservation Year] and [Revenue] objects, which are incompatible. This is because there is no revenue associated with a reservation. Revenue is generated only when the customer is invoiced. The underlying database structure reflects this; you cannot build a query that aggregates revenue by reservation year because there is no such thing as revenue by reservation year. In other words, the aggregation context that you specified for the [Revenue] object does not exist.

Incompatible objects and SQL

When you build a query, Web Intelligence generates SQL behind the scenes. This SQL is run against the database to produce a result that Web Intelligence displays in report(s). For a query to be free of incompatible objects, Web Intelligence must be able to generate a single SQL query to retrieve the data. If this is not possible, the query contains incompatible objects.

How Web Intelligence handles incompatible objects

If a report requires more than one SQL query to provide its data, Web Intelligence places the data from each query in a separate block, as shown below.

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
<th>Reservation Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY1998</td>
<td>5,063,554</td>
<td>FY2001</td>
</tr>
<tr>
<td>FY1999</td>
<td>1,107,240</td>
<td>FY2002</td>
</tr>
<tr>
<td>FY2000</td>
<td>1,119,750</td>
<td>FY2003</td>
</tr>
</tbody>
</table>

However, you can move data so that it all appears in one block. If you do this, Web Intelligence populates the incompatible cells in the block with either the #INCOMPATIBLE or #CONTEXT error messages.
The #INCOMPATIBLE error message

The #INCOMPATIBLE error message appears in dimensions that are not compatible.

**Example:** The #INCOMPATIBLE error message

The report below contains the [Year], [Reservation Year] and [Revenue] objects. Because you cannot calculate revenue by reservation year, the dimensions appear with the #INCOMPATIBLE error message and the measure appears with the #CONTEXT message.

<table>
<thead>
<tr>
<th>Year</th>
<th>Reservation Year</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>#INCOMPATIBLE</td>
<td>#INCOMPATIBLE</td>
<td>#CONTEXT</td>
</tr>
</tbody>
</table>

**Example:** The #INCOMPATIBLE error message in a report with no measures

The [Year] and [Reservation Year] objects in the report below still return the #INCOMPATIBLE error message even though no measure is specified; Web Intelligence is still able to display the error message even without the presence of measures in the report.

<table>
<thead>
<tr>
<th>Year</th>
<th>Reservation Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>#INCOMPATIBLE</td>
<td>#INCOMPATIBLE</td>
</tr>
</tbody>
</table>

The #CONTEXT error message

The #CONTEXT error message appears in measures whose aggregation context does not exist in the report. In the example "The #INCOMPATIBLE error message" on page 85, the [Revenue] object appears as #CONTEXT because it is not possible to aggregate [Revenue] by [Reservation Year], an incompatible object that also appears in the report.

Relationship between the #INCOMPATIBLE and #CONTEXT error messages

The #INCOMPATIBLE error message always implies a #CONTEXT error message. If you have a block containing incompatible dimensions, a measure that returns the #CONTEXT error message will always exist. However, the
7 Filtering queries

About incompatible objects in queries

inverse is not true. It is possible to have a block whose dimensions are compatible, to which you can add a measure that returns the #CONTEXT error message.

**Example:** #CONTEXT error message with compatible dimensions

The block below contains the [Country],[Year] and [Revenue] objects. Both dimensions are compatible and the aggregation context exists; hence the block returns data.

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>FY1998</td>
<td>295,540</td>
</tr>
<tr>
<td>France</td>
<td>FY1999</td>
<td>360,310</td>
</tr>
<tr>
<td>France</td>
<td>FY2000</td>
<td>259,179</td>
</tr>
<tr>
<td>US</td>
<td>FY1998</td>
<td>767,814</td>
</tr>
<tr>
<td>US</td>
<td>FY1999</td>
<td>826,201</td>
</tr>
<tr>
<td>US</td>
<td>FY2000</td>
<td>868,569</td>
</tr>
</tbody>
</table>

If you add the [Future Guests] object to the block, it returns #CONTEXT. This is because it is not possible to calculate future guests by country and year.

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Revenue</th>
<th>Future guests</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>FY1998</td>
<td>295,540</td>
<td>#CONTEXT</td>
</tr>
<tr>
<td>France</td>
<td>FY1999</td>
<td>360,310</td>
<td>#CONTEXT</td>
</tr>
<tr>
<td>France</td>
<td>FY2000</td>
<td>259,179</td>
<td>#CONTEXT</td>
</tr>
<tr>
<td>US</td>
<td>FY1998</td>
<td>767,814</td>
<td>#CONTEXT</td>
</tr>
<tr>
<td>US</td>
<td>FY1999</td>
<td>826,201</td>
<td>#CONTEXT</td>
</tr>
<tr>
<td>US</td>
<td>FY2000</td>
<td>868,569</td>
<td>#CONTEXT</td>
</tr>
</tbody>
</table>
Incompatible objects and sections

The concept of incompatible objects applies to the relationship between objects in a section header and the section body. The objects in the section body must be compatible with the objects in the section header.

**Example:** Incompatible objects in a report containing sections

The report below has the [Year] object in the section header, and blocks containing ([Country], [Revenue]) and ([Reservation Year], [Future Guests]) in the section body. The first block returns data because the [Country] and [Revenue] objects are compatible with the [Year] object (in other words, it is possible to calculate revenue by year by country) but the second block returns the #INCOMPATIBLE and #CONTEXT errors. This is because it is not possible to calculate future guests by year by reservation year; there is no link between the [Year] and [Reservation Year] objects.

<table>
<thead>
<tr>
<th></th>
<th>Revenue</th>
<th>Reservation Year</th>
<th>Future guests</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>295,940</td>
<td>#INCOMPATIBLE</td>
<td>#CONTEXT</td>
</tr>
<tr>
<td>US</td>
<td>757,614</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Revenue</th>
<th>Reservation Year</th>
<th>Future guests</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>200,310</td>
<td>#INCOMPATIBLE</td>
<td>#CONTEXT</td>
</tr>
<tr>
<td>US</td>
<td>826,300</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Revenue</th>
<th>Reservation Year</th>
<th>Future guests</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>259,170</td>
<td>#INCOMPATIBLE</td>
<td>#CONTEXT</td>
</tr>
<tr>
<td>US</td>
<td>850,600</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Incompatible objects and crosstabs

Crosstabs return #INCOMPATIBLE and #CONTEXT errors if the dimensions in the rows and columns are not compatible, or if the dimensions on the same axis are not compatible.

**Example:** Crosstab with incompatible objects

The crosstab below has [Year] and [Reservation Year] as rows, [Quarter] as columns and [Revenue] as a measure. This creates an impossible aggregation context.

<table>
<thead>
<tr>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCOMPATIBLE</td>
<td>INCOMPATIBLE</td>
<td>CONTEXT</td>
<td>CONTEXT</td>
</tr>
</tbody>
</table>

Incompatible objects and filters

You should take care when filtering a report, because it is possible to create an impossible aggregation context when you apply a filter.

**Example:** Creating an impossible aggregation context with a filter

You have a report that has sections on [Reservation Year] and [Year], and a block containing [Quarter] and [Revenue]. If you apply a filter on [Reservation Year], all the other objects display #INCOMPATIBLE or #CONTEXT. Without a filter, there is no problem, but because there is no relationship between [Year] and [Reservation Year], Web Intelligence is unable to determine what data to show in the block when you add the filter.

Troubleshooting incompatible objects

If you have a report that returns #INCOMPATIBLE or #CONTEXT error messages, you need to remove the conflicting dimensions in order to create an aggregation context that Web Intelligence can process. To do this you need to understand your data and the reason why the aggregation context you have specified is not possible.
Defining prompts on queries
How do prompts work?

A prompt is a dynamic filter that displays a question every time you refresh the data in a document. You answer prompts by either typing or selecting the value(s) you want to view before you refresh the data. Web Intelligence retrieves only the values you specified from the database and returns those values to the reports within the document. Prompts allow multiple users viewing a single document to specify a different sub-set of the database information and display it in the same report tables and charts. Prompts also reduce the time it takes for the data to be retrieved from the database.

**Example:** Enable users in the Accounts department to specify the period for which they want to view customer payment information

In this example, the document has a prompt filter on [Invoice Date] so that account managers can specify a period, for which they want to display the payment status of invoices by customer:

When you refresh the data in the report, the prompt displays to request you to specify the start date and end date of the period, for which you want to return data to the document.
What makes up a prompt?

To create a prompt, you need to specify three elements:

- a filtered object
- an operator
- a prompt message

For example, to prompt users to select a specific year, you define a prompt on the [Year] dimension:

```
filtered object: [Year]
```

an operator: Equal to

```
A prompt message displays on the prompt filter and requests the user to type one or more values. You can use this default message or type your own.
```

You can create multiple prompts on a document.

For example, you can create another prompt on the [State] dimension to focus your data to a more specific range of results:

```
AND

State In List (Which state?)
```

When you run the query, Web Intelligence displays the prompts:
Cascading prompts

Some objects cause Web Intelligence to display a cascading prompt when they are included in a prompt definition. The universe designer defines the lists of values of these objects hierarchically in relation to other object lists of values in the universe.

Cascading prompts help the user to focus on the object values they want to include in the prompt without the need to search all possible object values.

**Example:** Choosing a store

In this example the universe designer has defined the Store Name, City and State objects in a hierarchy. If you include a prompt `Store Name Equal To <value>`, Web Intelligence displays these objects in a hierarchy in the Prompts dialog box. In order to select the store, the user must first select the state in which the store city is found, then the city in which the store is found, then the store itself. When the user selects the state, Web Intelligence restricts the values of City to the cities in the state; when the user selects the city, Web Intelligence restricts the stores to the stores in the city.

![Image of cascading prompts]

**Note:** The text of the other objects triggered in the cascading prompt object (“Which city is the store in?”; “Which state is the store in?”) is defined in the universe.
What objects can I filter with a prompt?

You can define prompts on any dimension, measure, or detail object listed on the **Universe** pane:

For example, you can filter the [Year] *dimension* to return values for a specific year, filter the [Sales Revenue] *measure* to return values for a range of revenue figures, or filter the [Year/week] *detail* to return values for a specific week in a year.
### Which operator should I choose?

It is important to understand the effect of each operator available to you when you define a prompt. The table below lists the operators available for prompts and provides an example of each operator in the context of a business question:

<table>
<thead>
<tr>
<th>To obtain data...</th>
<th>for example...</th>
<th>select...</th>
<th>to create the filter...</th>
</tr>
</thead>
<tbody>
<tr>
<td>equal to a value you specify,</td>
<td>retrieve data for the US only,</td>
<td>Equal to</td>
<td>[Country] Equal to US.</td>
</tr>
<tr>
<td>not equal to a value you specify,</td>
<td>retrieve data for all countries other than the US</td>
<td>Not equal to</td>
<td>[Country] Not Equal to US</td>
</tr>
<tr>
<td>greater than a value you specify,</td>
<td>retrieve data for customers aged over 60,</td>
<td>Greater than</td>
<td>[Customer Age] Greater than 60</td>
</tr>
<tr>
<td>greater than or equal to a value you specify,</td>
<td>retrieve data for revenue starting from $1.5M upward,</td>
<td>Greater than or equal to</td>
<td>[Revenue] Greater than or equal to 1000500</td>
</tr>
<tr>
<td>lower than a value you specify,</td>
<td>retrieve data for exam grades below 40,</td>
<td>Less than</td>
<td>[Exam Grade] Less than 40</td>
</tr>
<tr>
<td>lower than or equal to a value you specify,</td>
<td>customers whose age is 30 or less,</td>
<td>Less than or equal to</td>
<td>[Age] Less than or equal to 30</td>
</tr>
<tr>
<td>that falls between two values you specify and includes those two values,</td>
<td>weeks starting at week 25 and finishing at 36 (including week 25 and week 36),</td>
<td>Between</td>
<td>[Weeks] Between 25 and 36</td>
</tr>
<tr>
<td>that falls outside two given values you specify,</td>
<td>all the weeks of the year, except for weeks 25 through 36 (week 25 and week 36 are not included),</td>
<td>Not between</td>
<td>[Weeks] Not Between 25 and 36</td>
</tr>
<tr>
<td>the same as several values you specify,</td>
<td>you only want to retrieve data for the following countries: the US, Japan, and the UK,</td>
<td>In list</td>
<td>[Country] In list 'US; Japan; UK'</td>
</tr>
</tbody>
</table>
Defining prompts on queries

How do prompts work?

<table>
<thead>
<tr>
<th>To obtain data...</th>
<th>for example...</th>
<th>select...</th>
<th>to create the filter...</th>
</tr>
</thead>
<tbody>
<tr>
<td>different from the multiple values you specify,</td>
<td>you don’t want to retrieve data for the following countries: the US, Japan, and the UK,</td>
<td>Not in list</td>
<td>[Country] Not in list ‘US; Japan; UK’</td>
</tr>
<tr>
<td>that includes a specific string,</td>
<td>customers whose date of birth is March 1972,</td>
<td>Matches pattern</td>
<td>[DOB] Matches pattern, ‘72’</td>
</tr>
<tr>
<td>that doesn’t include a specific string,</td>
<td>customers whose names do not begin with S,</td>
<td>Different from pattern</td>
<td>[DOB] Different from pattern, ‘s’</td>
</tr>
<tr>
<td>that corresponds to two values you specify,</td>
<td>telco customers who have both a fixed telephone and a mobile phone,</td>
<td>Both</td>
<td>[Account Type] Both “fixed” and “mobile”</td>
</tr>
<tr>
<td>that corresponds to one value you specify and does not correspond to another value you specify</td>
<td>telco customers who have a fixed telephone, but don’t have a mobile phone,</td>
<td>Except</td>
<td>[Account Type] “fixed” Except “mobile”</td>
</tr>
</tbody>
</table>

**Note:** You can’t use the following operators for prompts: Is null and Is not null. You can define query filters using these operators (see “Which operator should I choose?” on page 94).
Adding prompts to documents

You can apply one or multiple prompts to a document. The prompts appear in the order you create them, but you can also edit the order in which the prompts appear later. For information about prioritizing multiple prompts see “How do prompts on multiple queries in a single document work?” on page 100.

To create a prompt
1. From the Universe pane, drag the object on which you want to apply a prompt onto the Query Filters pane

   For example, if you want to allow users to specify the State for which they want to view data.

2. Select the operator from the list by scrolling using the arrow
3. As the operand type, select Prompt.
4. Edit the message to word a business question.
   Or
   Leave the default message.
5. Click **Properties**.
   Or
   Select the prompt by double-clicking it.
   
   The **Prompt properties** box appears.

   ![Prompt properties dialog box](image)

   See “Choosing how prompts display” on page 98 for the meaning of these check boxes.

6. Leave the default display option **Prompt with List of Values** checked.
   Or
   Check different prompt option(s) to define how the prompt displays.

   **Note:** If the prompt is for a date and you want users to see the popup calendar in order to select the date(s) then do **not** select **Prompt with List of Values**.

   By default, prompts display a list of values and a prompt box. For full information, see “Choosing how prompts display” on page 98.

7. Click **Update Filter** to update the prompt definition.
8. Click **OK** to confirm the prompt.
Choosing how prompts display

By default, prompts display a box and a list of values. You answer the prompt by either typing the value(s) in the box or by selecting value(s) from the list.

You can modify how prompts display by checking one, some, or all of the following options:

<table>
<thead>
<tr>
<th>If you want the prompt to display...</th>
<th>(useful when you...)</th>
<th>then...</th>
</tr>
</thead>
<tbody>
<tr>
<td>the list of values associated with the filtered dimension, measure, or detail,</td>
<td>want to view all the values for the object and then select from those values</td>
<td>leave the option selected by default: <strong>Prompt with List of Values</strong></td>
</tr>
<tr>
<td>the value(s) specified the last time the prompt was answered (users can select a different value(s)),</td>
<td>often reselect the same value(s) when you refresh the document, but want the ability to select a different value when necessary, such as the name of the current month</td>
<td>select the option: <strong>Keep last values selected</strong></td>
</tr>
<tr>
<td>the value(s) you specify as the default (users can select a different value(s)),</td>
<td>almost always reselect the same value(s) when you refresh the document, but want the ability to select a different value when necessary, such as the number for the current year</td>
<td>select the option: <strong>Set default value(s)</strong></td>
</tr>
<tr>
<td>a list of values from which users select a value(s),</td>
<td>prevent users from typing a value that might not exist on the database</td>
<td>select the option: <strong>Select only from List</strong></td>
</tr>
</tbody>
</table>

**Note:** If the prompt is for a date and you want users to see the popup calendar in order to select the date(s) then do not select **Prompt with List of Values**.
Modifying or removing prompts

At any time, you can change/edit the prompt.

► To modify prompt properties
1. Select the prompt and rephrase the question (if you want).
2. Click Properties.
Or
Select the prompt by double-clicking it.
The Prompt properties box appears.

3. Change the parameters.
4. Click OK.
► To remove a prompt from a query
1. Select the prompt and then click the Delete key.
Or
Drag the prompt that you want to remove onto the Universe pane.
The prompt is removed from the query definition and no longer appears on the Query Filters pane.
How do prompts on multiple queries in a single document work?

You can apply multiple prompts to a single query so that users accessing the same Web Intelligence document can limit the data returned to the report to the information that corresponds to their specific business interest.

The following section tells you how to:

• combine multiple prompts
• combine prompts within other query filters
• prioritize the order of prompts

Combining multiple prompts

Combining multiple prompts on a single query enables you to filter the data returned to the document so that each person viewing the report sees only the information relevant to their business need. For example, if you combine the following three prompts on a Customer Accounts document:

• Which customer?
• Which account?
• Which calendar period: from? to?

This enables each accounts manager viewing the document to view report values for a specific customer account during a specific period.

To combine prompts

1. Create each prompt.

For step-by-step information on how to create a prompt, see “To create a prompt” on page 96.

View the prompts on the query in the Query Filters pane. By default Web Intelligence combines the prompts with the And operator.
2. You can leave the *And* operator or change the operator to *Or*.

This table explains the difference between the *And* and the *Or* operators:

<table>
<thead>
<tr>
<th>You want to retrieve...</th>
<th>For example...</th>
<th>Select...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data true for both filters.</td>
<td>Customers who ordered supplies in Q1 and in Q2 (the data you retrieve will include: customers who placed orders in both Q1 and Q2),</td>
<td><em>And</em></td>
</tr>
<tr>
<td>Data true for any one of the filters.</td>
<td>Customers who ordered supplies in Q1 or Q2 (the data you retrieve will include: customers who placed orders in Q1 only; customers who placed orders in Q2 only, and; customers who placed orders in both Q1 and Q2),</td>
<td><em>Or</em></td>
</tr>
</tbody>
</table>

If necessary, change the operator to *Or*, by clicking the *And* operator once.

*Or* now displays as the operator. For information on changing the order of prompts, see “Adding prompts to documents” on page 96.

## Combining prompts with other query filters

Combining prompts and filters on a single query enables you to decide the values for some of the selected objects on the query using filters and allow users to decide the values of other selected objects using prompts. For example, if you combine the following filters and prompts on a HR document:

- [Year] Equal to This Year
- [Job title] Not equal to Senior Executive
- Which employee?

Users viewing the document can choose which employee they view information for, but they can only view data for the current year and they can’t view data for senior executives.

> **To combine prompts with other filters**

1. Create each prompt and filter.

For step-by-step information on how to create a prompt, see “To create a prompt” on page 96.

The prompts and query filters appear on the Query Filters pane. By default Web Intelligence combines the prompts and filters with the *And* operator.
Defining prompts on queries

**How do prompts on multiple queries in a single document work?**

1. Click the Properties tab.
   
   The prompts are listed in order in the **Prompt Order** list box.

2. Select the prompt that you want to move and drag it up or down. A red line appears where it is about to be placed.
   
   The next time you run the queries the report will display in the new order you specified.

---

2. You can leave the *And* operator or change the operator to *Or*.
   
   For a definition and example of *And* and *Or*, see the table of operators on page 101.
   
   The prompts appear when you run the query or refresh the document data. You can change the order the prompts appear by prioritizing the prompts.

---

**Prioritizing the order of prompts**

1. To prioritize the order of prompts
   
   1. Click the Properties tab.
   
      The prompts are listed in order in the Prompt Order list box.

   2. Select the prompt that you want to move and drag it up or down. A red line appears where it is about to be placed.
      
      The next time you run the queries the report will display in the new order you specified.

---
Business Objects
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Business Objects offers a full documentation set covering its products and their deployment. Additional support and services are also available to help maximize the return on your business intelligence investment. The following sections detail where to get Business Objects documentation and how to use the resources at Business Objects to meet your needs for technical support, education, and consulting.

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Where is the documentation?

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Documentation from the products

Online help and guides in Adobe PDF format are available from the product Help menus. Where only online help is provided, the online help file contains the entire contents of the PDF version of the guide.

Documentation on the web

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- United Kingdom
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http://www.businessobjects.com/services/training
Useful addresses at a glance

<table>
<thead>
<tr>
<th>Address</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business Objects product information</strong>&lt;br&gt;<a href="http://www.businessobjects.com">http://www.businessobjects.com</a></td>
<td>Information about the full range of Business Objects products.</td>
</tr>
<tr>
<td><strong>Product documentation</strong>&lt;br&gt;<a href="http://www.businessobjects.com/support">http://www.businessobjects.com/support</a></td>
<td>Business Objects product documentation, including the Business Objects Documentation Roadmap.</td>
</tr>
<tr>
<td><strong>Business Objects Documentation mailbox</strong>&lt;br&gt;<a href="mailto:documentation@businessobjects.com">documentation@businessobjects.com</a></td>
<td>Send us feedback or questions about documentation.</td>
</tr>
<tr>
<td><strong>Online Customer Support</strong>&lt;br&gt;<a href="http://www.businessobjects.com/support/">http://www.businessobjects.com/support/</a></td>
<td>Information on Customer Support programs, as well as links to technical articles, downloads, and online forums.</td>
</tr>
<tr>
<td><strong>Business Objects Consulting Services</strong>&lt;br&gt;<a href="http://www.businessobjects.com/services/consulting/">http://www.businessobjects.com/services/consulting/</a></td>
<td>Information on how Business Objects can help maximize your business intelligence investment.</td>
</tr>
<tr>
<td><strong>Business Objects Education Services</strong>&lt;br&gt;<a href="http://www.businessobjects.com/services/training">http://www.businessobjects.com/services/training</a></td>
<td>Information on Business Objects training options and modules.</td>
</tr>
</tbody>
</table>
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