

**IBM Cognos BI  
Administration (v10.2.2)**  
Student Guide Volume 2  
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IBM Cognos BI Administration (v10.2.2)

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The image is a promotional graphic for IBM Business Analytics software. It features a white background with a decorative border composed of teal and yellow hexagonal icons. In the top right corner, the blue IBM logo is displayed. The central text, "Manage Run Activities", is rendered in a large, bold, black sans-serif font. Below this, the product name "IBM Cognos BI 10.2.2" is shown in a smaller, standard black font. At the bottom left, a small rectangular box contains the text "Business Analytics software". On the bottom right, there is a small line of fine print: "© 2015 IBM Corporation".

**Manage Run Activities**

IBM Cognos BI 10.2.2

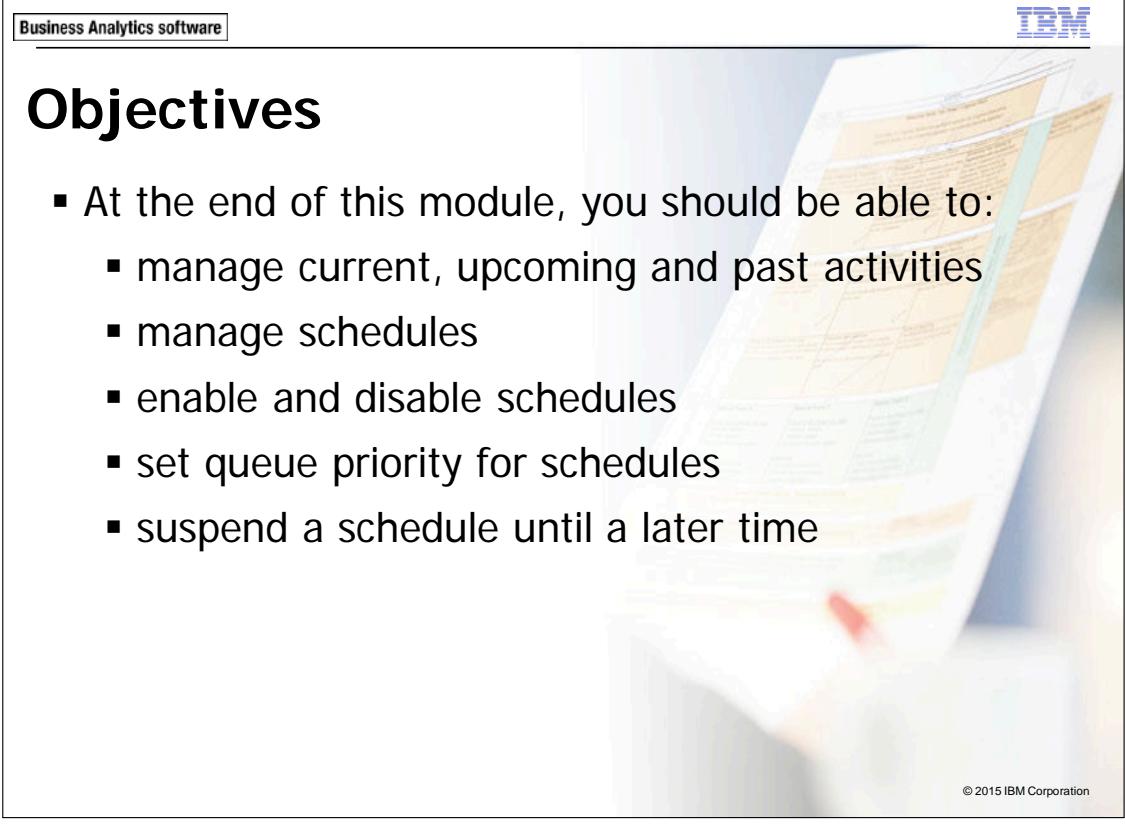
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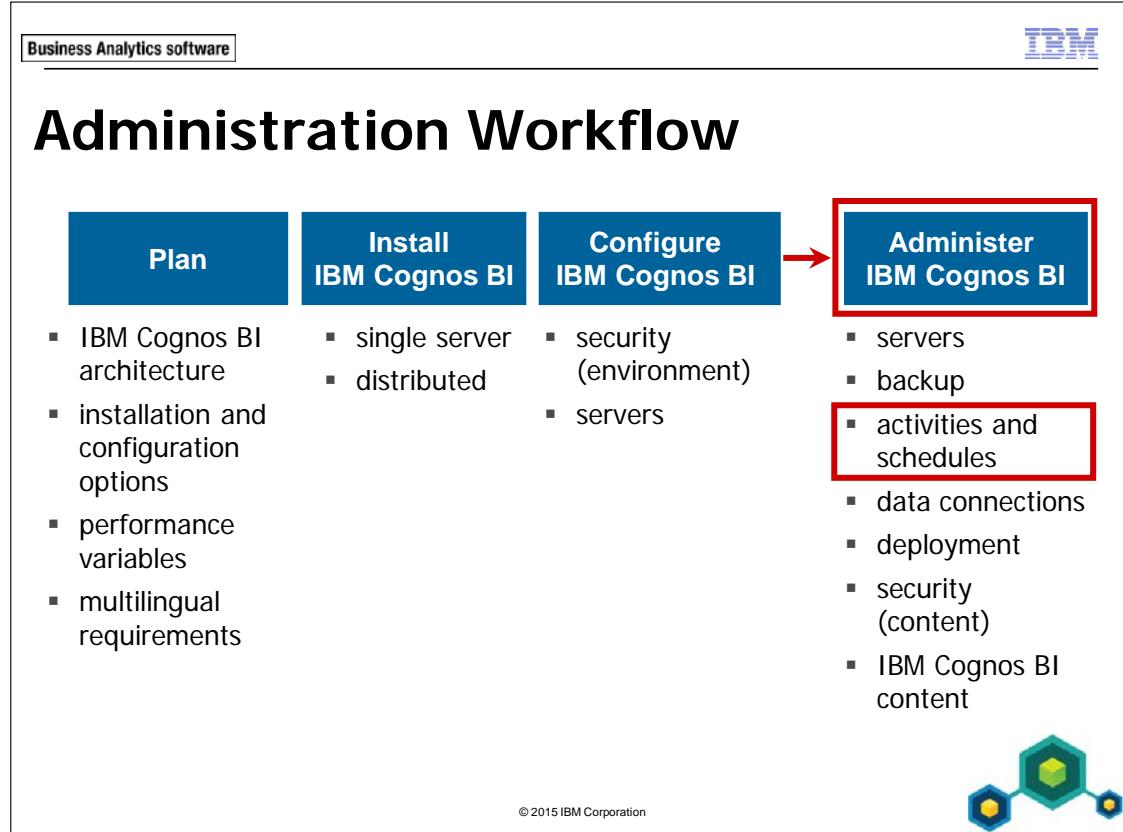


# Objectives

- At the end of this module, you should be able to:
  - manage current, upcoming and past activities
  - manage schedules
  - enable and disable schedules
  - set queue priority for schedules
  - suspend a schedule until a later time



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In this module, you will focus on managing activities and schedules. There is more about this topic in the *IBM Cognos Business Intelligence Version 10.2.2 Administration and Security Guide*, Chapter 21: Activities Management.

# Manage Activities

- Activities run in the background, or they are interactive.
- You can view a list of all the activities that are current, past, upcoming on a specific day, or scheduled.
- You can also:
  - see who ran each activity
  - cancel or suspend an activity
  - change the priority of an activity

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Some activities that can be run include:

- agents and agent views
- analyses, queries, and reports
- content and metric maintenance
- exports, imports, and migration

## Current Activities

- Current activities are those that are currently being processed in IBM Cognos BI.
- You can cancel current activities that are:
  - pending
  - executing
  - suspended (background only)
  - waiting (background only)

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A pending activity is one that is in the queue to be run.

A waiting activity is one that is waiting for a non-IBM Cognos BI process to complete. For example, if the Lotus Domino mail server is down, the activity would be "waiting" for the mail server to be started.

If you set an activity to run at some future time, it is not considered a current activity, but rather a scheduled activity.

## Past Activities

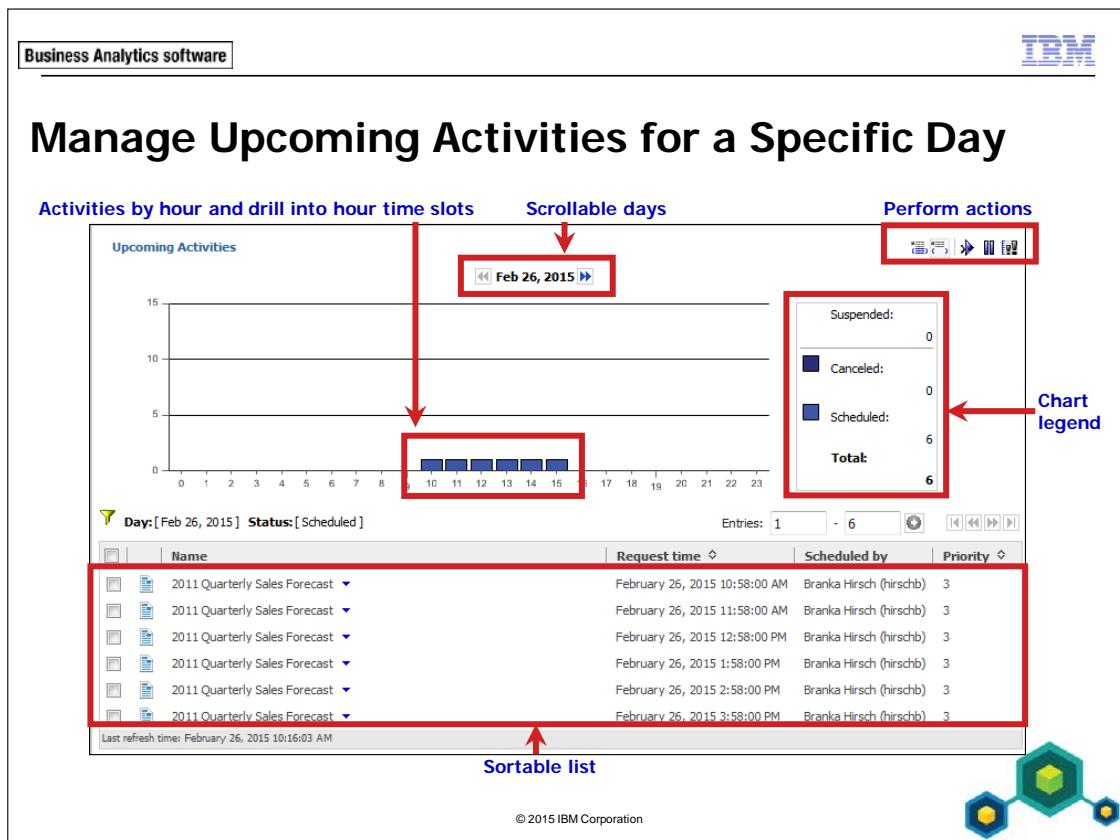
- Past activities are background activities that have finished being processed by IBM Cognos BI.
- If an activity consists of multiple tasks, if at least one task succeeds, the status of the activity is Succeeded.
- When an entry fails, you can resubmit the failed entry with the same options that were specified in the original run.

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When you cancel a current activity, it is listed as a cancelled past activity.

If one task fails, but others have succeeded, a red x appears beside the Succeeded status. View run history details for more information about the error.



You can choose to view a list of all upcoming activities that are scheduled for a specific day.

Each entry is listed by name and shows the request time, the user who scheduled the activity, and the priority. You can sort the list by Request time and Priority columns.

A bar chart shows the total number of scheduled and canceled entries for each hour of the day. The chart legend shows the total number of suspend, scheduled, and canceled entries for the day.

You can filter the list to show activities for a different day, by status (scheduled, canceled, or suspended), by user, or by priority.

You can cancel scheduled runs of entries, reschedule entry runs that have been canceled, set priorities, suspend entries indefinitely or suspend them until a specific date or time.

You can click Show entry details to see more information. For each entry, Last Execution Response Time and Path are displayed, for example, Public Folders\Samples\Models\GO Sales (query).

## Demo 1: Monitor Run Activities

To complete the demos in this module, you should be using the B5A55\_1567ABCD image.

Before doing this demo, in the BI environment, in the **Taskbar**, click **Services** to ensure that the following services are started:

- Apache Directory Server - default
- DB2-DB2COPY1 - DB2
- DB2DAS - DB2DAS00
- World Wide Web Publishing Service
- IBM Cognos

### Purpose:

**Report administrators can monitor run activities. You want to explore run activities while logged on as a consumer and a report administrator.**

#### Task 1. View current activities.

In this demo, you will ensure that the mail server is off to simulate it being unavailable.

1. On the **Taskbar**, click the **Services** icon, right-click **Lotus Domino Server (C:\Program Files\IBM\Lotus\Domino\data)**, and then click **Stop**.  
Wait for the mail server to stop before proceeding.
2. Open **Internet Explorer**, navigate to <http://vclassbase:88/ibmcognos>, and then log on as **chowd/Education1**.

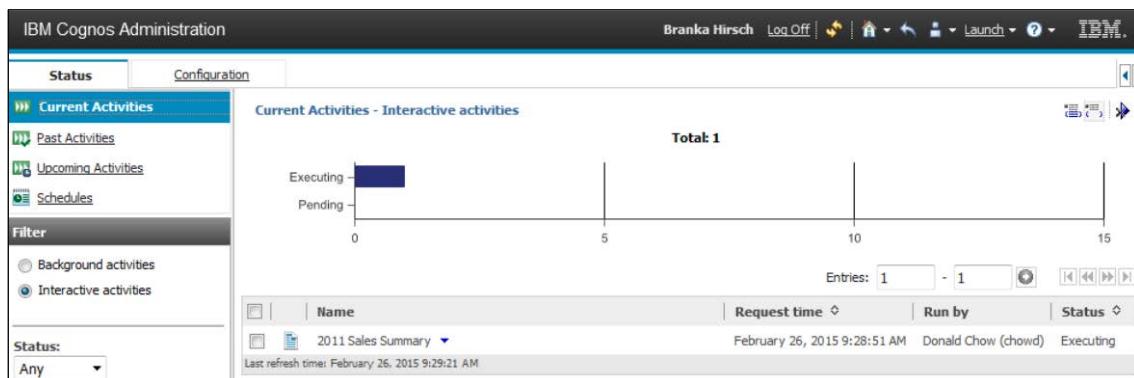
Donald Chow is a member of the Consumers role. Notice that he has limited access that does not include IBM Cognos Administration.

3. Click **IBM Cognos content**.
4. On the taskbar, right-click **Internet Explorer**, and then click **Start InPrivate Browsing**.
5. Navigate to <http://vclassbase:88/ibmcognos>, and then log on as **hirschb/Education1**.

Branka Hirsch is a member of the Report Administrators role, and has access to IBM Cognos Administration.

6. In the **Branka Hirsch** browser session, click **Administer IBM Cognos content**, on the **Status** tab, in the left pane in the **Filter** section, click **Interactive activities**, and then click **Apply**.
7. Switch to the **Donald Chow** browser session, and then in **IBM Cognos Connection**, in **Public Folders**, navigate to **Samples > Models > GO Sales (analysis) > Report Studio Report Samples**, and then click **2011 Sales Summary**.
8. While the report is rendering, immediately return to the **Branka Hirsch** browser session.

Notice that the report you ran appears in the list because it was run as an interactive activity. You may have to click Refresh on the toolbar to see the results.



9. In the left pane in the **Filter** section, click **Background activities**, and then click **Apply**.  
Notice that the report you ran does not appear.
10. Switch to the **Donald Chow** browser session, after the report finishes running, and then on the toolbar, click **Return**
11. In **IBM Cognos Connection**, in the **Actions** column for **2011 Sales Summary**, click **Run with options** , and then near the top right, click **advanced options**.

12. In the **Time and mode** section, click **Run in the background**, under **Delivery**, deselect the **Save the report as a report view** check box, and then select the **Send the report by email** check box.

A section of the result appears as follows:

**Delivery:**  
Select at least one delivery method. For burst reports, the email recipients are determined by the burst specification.

[Save the report as a report view](#) [Edit the save options...](#)  
 [Report View of 2011 Sales Summary](#)

[Save to the file system](#) [Edit the file system options...](#)  
Name: Use the report name. Location: Public Reports. Replace existing files

[Print the report](#)

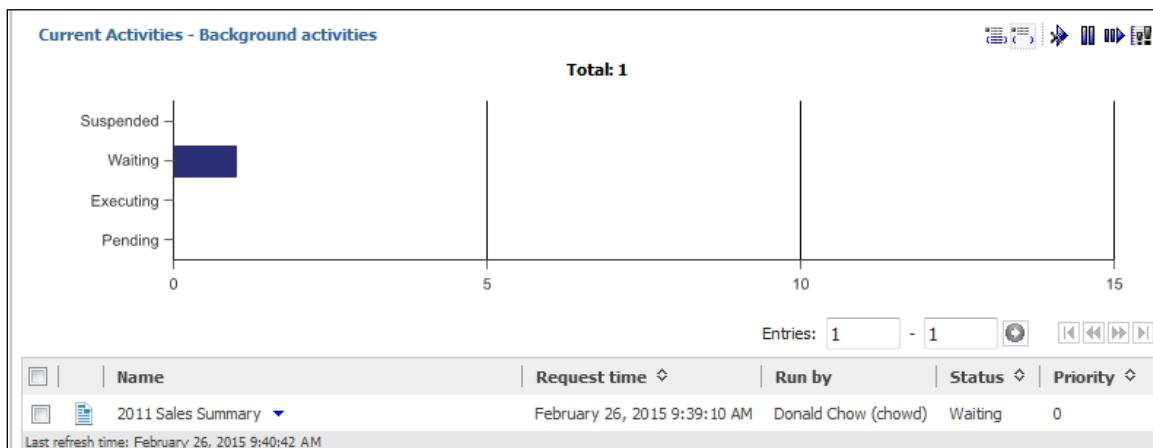
**Printer location:**  [Select a printer...](#)

[Send the report by email](#) [Edit the email options...](#)  
Donald Chow (chowd)

You need to click Run in the background, to allow you to send the report by email.

13. For the **Send the report by email** option, click **Edit the email options**, in the **To** box, replace the contents with **AWalter@grtd123.com**, and then click **OK**. Because Alice Walter has her email already defined as part of her user profile in IBM Cognos BI, you could alternatively select recipients from the LDAP namespace.
14. On the **Run with advanced** options page, click **Run**, and then click **OK** to close the message that appears.

15. In **IBM Cognos Administration**, as **Branka Hirsch**, on the toolbar, click **Refresh**. (You may have to refresh multiple times.)  
A section of the result appears as follows:



The report has a status of executing, and then after multiple refreshes, it has a status of waiting. This is because you have turned off the mail server. In the summary pane below the graph, you can also see the time the report was requested, and that it was requested by Donald Chow.

16. On the **Current Activities** toolbar above the graph, click **Show Details** .
- A section of the result appears as follows:

The table displays the same information as the previous screenshot, but with more detail. It includes a column for the checkbox and the report name. The "Request time" column shows "February 26, 2015 9:39:10 AM". The "Run by" column shows "Donald Chow (chowd)". The "Status" column shows "Waiting". The "Priority" column shows "0". The "Name" column shows "2011 Sales Summary". The "Path" column shows "Path: Public Folders > Samples > Models > GO Sales (analysis) > Report Studio Report Samples. Dispatcher: . Process ID: 3828.". The "Last Execution Response Time" column shows "00:00:29.406". The "Last refresh time" is "February 26, 2015 9:40:42 AM".

Now you can also see the path from where the report was run, the process ID on the dispatcher (your PID will be different than shown) where the report was run, and the last execution time (if available).

17. In the list, click the **2011 Sales Summary** check box to select it, and then on the **Current Activities** toolbar, click **Cancel** .

You can cancel a report that has the status of pending, executing, waiting or suspended.

## Task 2. View past activities.

1. Switch to the **Donald Chow** browser session, and run the **2011 Sales Summary** report again with the following run options:
  - run in the background now
  - send the report by email to **AWalter@grtd123.com**
  - do not save the report as a report view
2. Switch to the **Branka Hirsch** browser session, and then click **Refresh**.

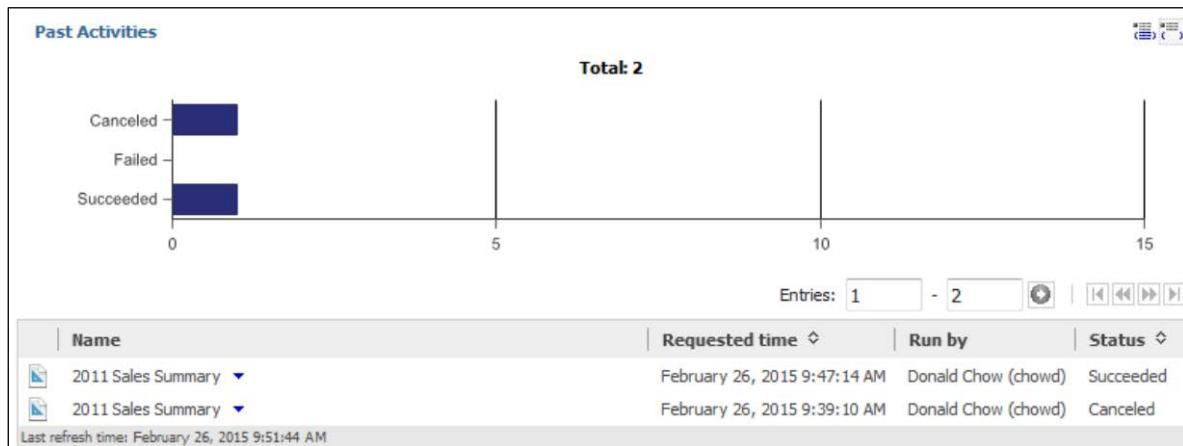
The report has a status of pending, executing, and then changes to a status of waiting. You may have to click Refresh a multiple times to see this.
3. Switch to the **Services** window, and start the **Lotus Domino Server (CProgramFilesx86IBMLotusDominodata)** service, to restart the mail server.
4. In the **Branka Hirsch** browser instance, ensure that **Current activities** is active, and then click **Refresh**.

When the report is sent, it no longer has a status of waiting.  
If there is a problem with an email address, the report will be saved as report view, even if you did not select "Save as report view". The status of the report will be "Succeeded", but there will be a red X beside it. If you view the run history details of the report, you will see the message that the Mail Server returned an "Invalid Addresses" error.

5. In **IBM Cognos Administration**, in the pane on the left click **Past Activities**.

By default, the activities that you ran in the last four hours appear. You can change this to show the activities that ran in the last 4, 8, 12, or 24 hours. You can also show the activities that ran in the last 7, 30, or 365 days.

Depending on what has ran in the last four hours you will see a result similar to the following:



The activity that you canceled earlier appears with the status Canceled, and the report that ran successfully appears with the status Succeeded.

6. For the **2011 Sales Summary** activity that succeeded, click **Actions** , and then click **View run history**.

You see the number of times the report ran, and again, the latest run has a status of Succeeded.

7. On the **View run history** page, click **Close**.

8. For the **2011 Sales Summary** activity that succeeded, click **Actions**, and then click **View run history details**.

Again, you can see that the last run has a status of Succeeded.

9. On the **View run history details** page click **Close**.

## Task 3. View upcoming activities.

You can schedule a task to run in the future with the Schedule button, available within Actions or through the run options. The Schedule button allows you to schedule a report to run more than once, while the run options let you run the report once in the future. Consumers cannot set a schedule to run more than once, but report administrators can do this.

You will schedule the 2011 Sales Summary report to run daily during a specified time period. For the purposes of this demo you will set the end time of the schedule to be the next day. You will then view the activities for this schedule in the Upcoming Activities pane.

1. Switch to the **Donald Chow** browser session, log off, and then close the browser window.
2. In the **Branka Hirsch** browser instance, from the **Launch** menu, click **IBM Cognos Connection**.
3. In **Public Folders**, navigate to **Samples > Models > GO Sales (analysis) > Report Studio Report Samples**, and then in the **Actions** column for **2011 Quarterly Sales Forecast**, click **Schedule** .
4. In the **Frequency** section, click the **By Day** tab, in the **Daily Frequency** section, select the check box, and then set the report to run every **1 Hour(s)**, between **8:00 AM** and **4:00 PM**, with no end date.
5. Leave **Options** and **Prompt values** with the default settings, and then click **OK** to close the **Schedule** dialog box.
6. From the **Launch** menu, click **IBM Cognos Administration**, and then on the **Status** tab, click **Upcoming Activities**.

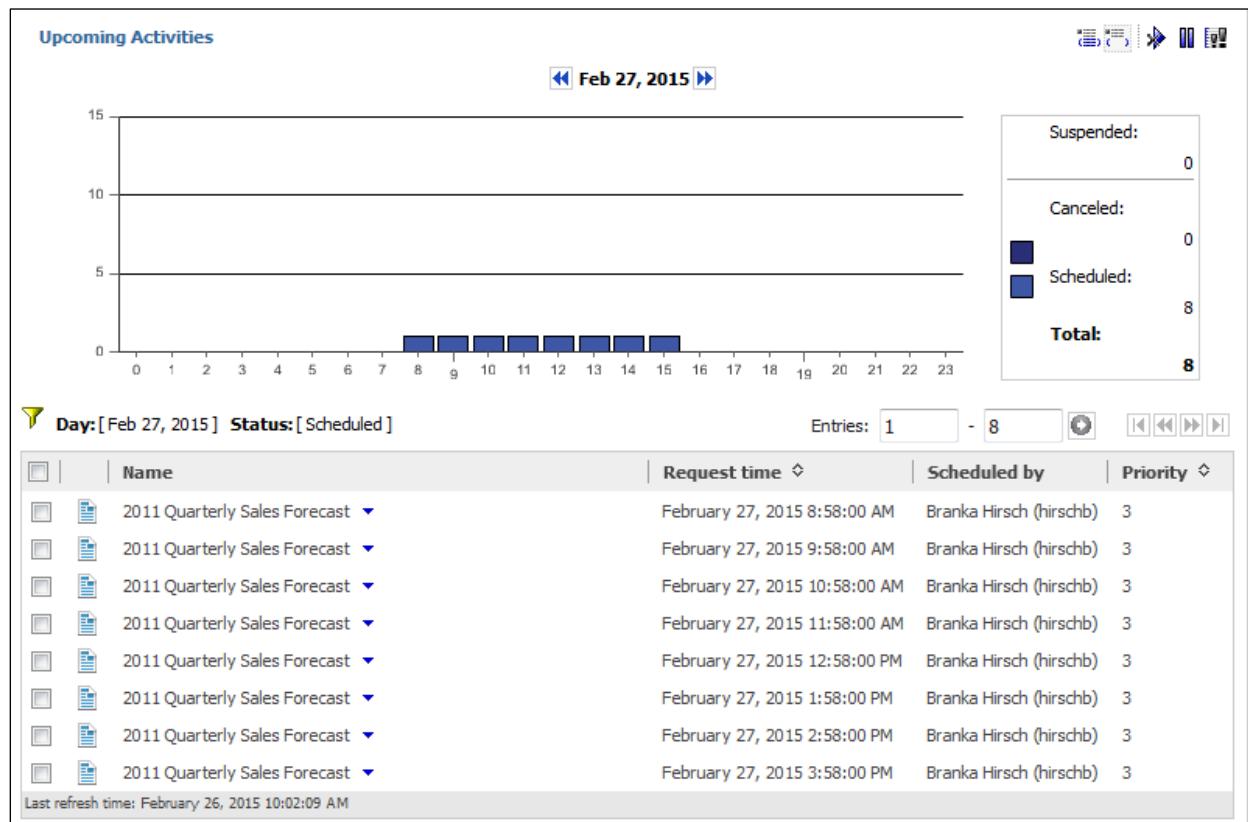
Notice that, for the currently displayed day, upcoming activities are shown in the graph at the top of the page along with a color coded legend based on status to the right. The activities are also listed in chronological order at the bottom of the page.

**Note:** Depending on what time of day you set the schedule, you may not see activities listed for the current day, or you may see a different number of scheduled activities. You may have to Filter the day to the next day (in the left pane) to see activities.

7. In the left pane, in the **Filter** section, for the **Day** box click the calendar , in the calendar display, click the next day, and then click **Apply**.

This lets you view the activities that will run on the following day. You can also scroll to view activities for a given day by using the Previous and Next buttons at the top of the graph. This only changes the graphical display of activities and not the list.

A section of your result will appear similar to the following:



8. In the list, select the check box beside the first activity, and then on the toolbar click **Cancel** .

Notice that the activity is no longer listed at the bottom of the page. This is because you are currently viewing only scheduled activities. The graph still displays all activities, but notice that the status and color coding in the graph for the activity you canceled has changed.

9. In the left pane, in the **Filter** section, in the **Status** list, click **Canceled**, and then click **Apply**.

The list is updated to display the one activity you canceled.

10. In the left pane, in the **Filter** section, in the **Status** list, click **Suspended**, and then click **Apply**.

The list is updated to display only suspended activities. This view displays entries that have been suspended indefinitely. It does not display entries that have been suspended until a later date and/or time. Currently there are no suspended activities.

11. In the left pane, in the **Filter** section, in the **Status** list, click **Canceled**, and then click **Apply**.

12. Select the check box beside the canceled activity, and then on the **Upcoming Activities** toolbar above the graph, click **Schedule**.

The activity is no longer displayed in the list of canceled activities.

13. In the left pane, in the **Filter** section, in the **Status** list, click **Scheduled**, and then click **Apply**.

The activity is again scheduled to run at the original time.

Leave Branka Hirsch logged on in the browser session, to start the next demo.

## Results:

**You explored run activities while logged on as a consumer and as a report administrator.**

## Set Queue Priorities

- You can set the queue priority for activities that are
  - currently in the queue
  - upcoming activities
  - scheduled activities
- A currently running activity will not automatically be suspended because another activity in the queue has a higher priority.

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For scheduled activities, the notion of priority exists at two levels:

- for a specific run
- for the entire schedule

Priority can be set from 1 to 5, with 1 being the highest priority. By default, activities have a priority of 3.

The priority on a scheduled instance indicates its importance in the queue. Suppose there were 4 reports in the queue that were scheduled to execute at 10:52 pm. The order of execution will be dictated by the priority associated with the schedule. This does not mean that if there is a report currently in execution that has a priority of 5, that it will be cancelled because a scheduled report with a higher priority enters the queue. Priority only plays a role in assigning queued requests.

# Manage Schedules

- You can:
  - create a schedule for entries
    - to run once
    - as a recurring run
  - disable and enable scheduled entries
  - modify the schedule
  - remove the schedule
  - suspend the schedule indefinitely or until a later date or time

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You can schedule entries, such as:

- reports
- content maintenance tasks
- deployments
- jobs
- metrics maintenance tasks

Only one schedule can be associated with each entry. If you require multiple schedules for a report or agent entry, you can create report views or agent views and then create a schedule for each view.

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## Set a Schedule to Run Once

- You can schedule an entry to run once at a later date and/or time.

**Run with advanced options - 2011 Sales Summary**

Select how you want to run and receive your report. If you produce a single report output, you can view it. If you produce multiple report outputs, you can save them, print them, or send an email notification.

**Time and mode:**

View the report now  
 Run in the background:  
     Now  
     Later

Feb 26, 2015

10 : 12 AM

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Use the advanced run options for an entry to schedule it to run at a later date and/or time.

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## Set a Recurring Schedule

- You can schedule an entry to run at a recurring date and time.

The screenshot displays the 'Schedule - 2011 Sales Summary' dialog. It includes fields for 'Priority' (set to 3), 'Start date' (Feb 26, 2015, 10:20 AM), 'End' (No end date or End by date Feb 26, 2015, 10:20 AM), and 'Frequency' (set to 'Every 1 day(s)'). Below these, there's a 'Daily Frequency' section with a checked checkbox for 'Every 1 Hour(s)' between 8:00 AM and 4:00 PM. The footer of the dialog contains the text '© 2015 IBM Corporation' and a decorative graphic of three hexagons.

If you specify intraday scheduling in the Frequency section, you can also select a daily frequency for your scheduled entries. You can choose to schedule an entry either by the minute or by the hour.

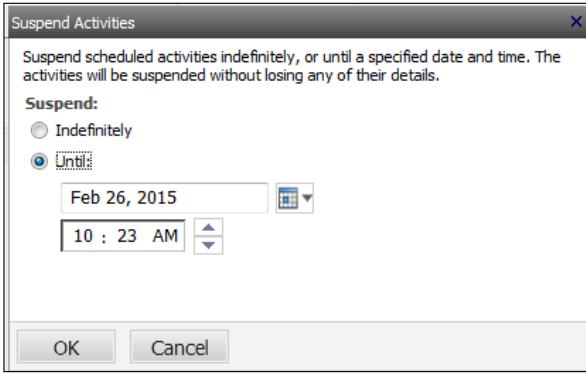
When you specify a daily frequency, you also have the option to select a time period when you want the entry to run during the day, for example, between 9:00 am and 5:00 pm. This way, you can restrict the running of entries to periods during the day when updates are required.

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## Suspend Upcoming Activities (1 of 2)

- Suspend entries to respond to system requirements.
- Suspend to a different date or time.
- Use the bar chart and scroll to identify an appropriate different date or time.



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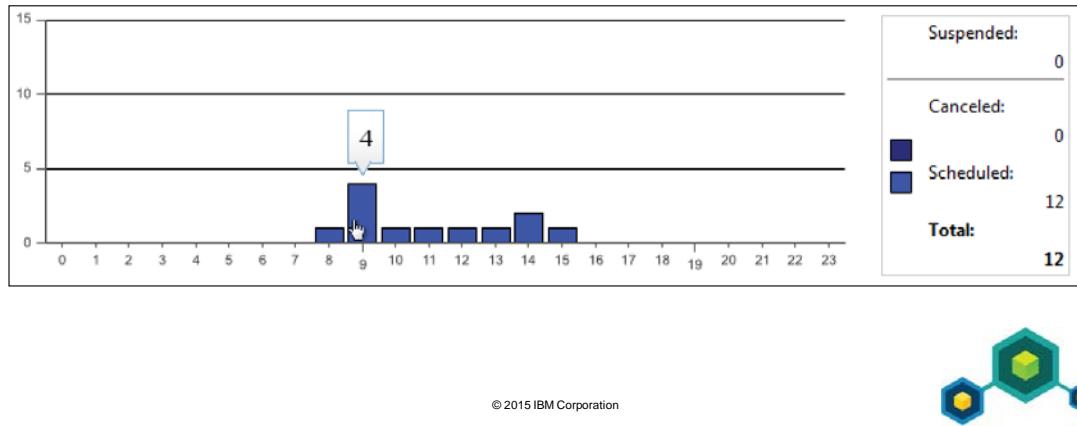
If your system tends to be overloaded at certain times, you can reduce the workload and avoid bottlenecks by suspending entries indefinitely or rescheduling them for a later time.

You can resume indefinitely suspended entries even after the original execution time has lapsed. For example, if you schedule a report for 9:00 am, then suspend it, you can restart the report at 9:30 a.m.

After suspending entries, you can view a list of entries that are suspended indefinitely.

## Suspend Upcoming Activities (2 of 2)

- Use the bar chart and scroll button to identify appropriate dates and/or times to reschedule activities.



By browsing the upcoming dates in the chart, you can see the number of entries for a specific day. When you hover over a specific hour in the day, you can find the number of entries for the hour. In this way, you can find a date and/or time when demand is low and reschedule to that date. The chart columns show the total number of scheduled and canceled entries for each hour of the day. The chart legend shows the total number of scheduled, canceled, and suspended entries for the day.

## Demo 2: Change Priorities, and Disable and Enable a Schedule

### Purpose:

You want to compare the effect of changing the priority of an activity, versus changing the priority of a schedule. After that, you will explore the effect of disabling and enabling the schedule that was already created.

### Task 1. Change the priority of an activity.

1. On the **Status** tab, with **Upcoming Activities** selected in the left pane, in the **Actions** list for the second activity, click **Set Priority** .
2. Set the **Priority** to **1**, and then click **OK**.

When you schedule an entry, as the administrator, you can select a run priority from 1 to 5. For example, an entry with priority 1 runs before an entry with priority 5. If there is more than one entry with a specific priority, the one that arrived in the queue first runs first. The default priority setting is 3.

The priority of entries in the queue does not affect an entry that is already running. The running entry completes and then the queue priority is checked for the next entry to run.

Remember though that you did not change the priority on all the activities. All the other activities still have a priority of 3.

## Task 2. Change the priority of a previously scheduled report.

You will change the priority for all the reports that were on this schedule.

1. In the left pane, click **Schedules**, and then in the **Actions** list for **2011 Quarterly Sales Forecast**, click **Set Priority**.
2. Set the **Priority** to **2**, and then click **OK**.
3. In the left pane, click **Upcoming Activities**.

The priority of the upcoming activities remains unchanged. Note: if the graph at the top of the page does not appear, right-click in the page, and then click Refresh. This will refresh and resend the web page, and will bring you back the Current Activities view. Click Upcoming Activities to return.

4. On the toolbar, click **Refresh** to see the effect of changing the priority on the schedule.

	Name	Request time	Scheduled by	Priority
<input type="checkbox"/>	2011 Quarterly Sales Forecast ▾	February 26, 2015 10:58:00 AM	Branka Hirsch (hirschb)	2
<input type="checkbox"/>	2011 Quarterly Sales Forecast ▾	February 26, 2015 11:58:00 AM	Branka Hirsch (hirschb)	1
<input type="checkbox"/>	2011 Quarterly Sales Forecast ▾	February 26, 2015 12:58:00 PM	Branka Hirsch (hirschb)	2
<input type="checkbox"/>	2011 Quarterly Sales Forecast ▾	February 26, 2015 1:58:00 PM	Branka Hirsch (hirschb)	2
<input type="checkbox"/>	2011 Quarterly Sales Forecast ▾	February 26, 2015 2:58:00 PM	Branka Hirsch (hirschb)	2
<input type="checkbox"/>	2011 Quarterly Sales Forecast ▾	February 26, 2015 3:58:00 PM	Branka Hirsch (hirschb)	2

All scheduled activities, except the one activity that you manually set now have a priority of 2. The priority for an entire schedule can be set on the Schedules link, but if you manually set the priority on an upcoming activity, it will take precedence.

## Task 3. Modify properties of a previously scheduled report.

You want to explore the properties of the previously scheduled report that you can change.

You will disable, and then enable the schedule.

1. In the left pane, click **Schedules**.
2. In the **Actions** list for **2011 Quarterly Sales Forecast**, click **Disable the schedule**.
3. On the toolbar, click **Refresh**, and then click **Upcoming Activities**.  
None of the 2011 Quarterly Sales Forecast tasks that were listed previously are displayed.
4. In the left pane, click **Schedules**, and then in the **Actions** list for **2011 Quarterly Sales Forecast**, click **Enable the schedule**.
5. On the toolbar, click **Refresh**, and then click **Upcoming Activities**.  
All of the activities that were originally scheduled are displayed.

## Task 4. Set up schedules for other reports.

1. From the **Launch** menu, click **IBM Cognos Connection**, navigate to **Samples > Models > GO Data Warehouse (analysis) > Report Studio Report Samples**, and then click **Next Page**.
2. In the **Actions** column for **Returned Items**, click **Schedule**.
3. In the **Frequency** section, click the **By Day** tab.
4. Under **Start date > Start**, set the time to **9:00 AM**.
5. Select the **Disable the schedule** check box.

The results appear similar to the following:

<input checked="" type="checkbox"/> <b>Disable the schedule</b>	<b>Priority:</b> 3	<b>Start:</b> Sep 5, 2012 9 : 00 AM
---	-----------------------	---

You will enable the schedule later in this demo.

6. Click **OK** to close the **Schedule** page.
7. Repeat steps 2 to 6 for the **Returns by Order Method** and **Return Quantity by Order Method** reports.

## Task 5. Suspend a scheduled activity.

- From the **Launch** menu, click **IBM Cognos Administration**, and on the **Status** tab in the left pane, click **Schedules**.

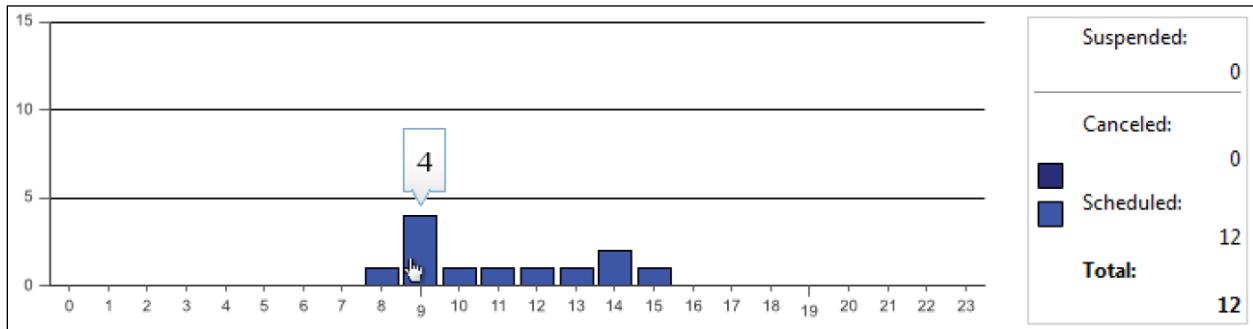
Notice that along with the schedule for the 2011 Quarterly Sales Forecast report, there are additional schedules. These are currently displayed as Disabled in the list and the graph.

- In the **Actions** list for **Returns by Order Method**, click **Enable the schedule**.
- Repeat step 2 to enable the schedules for **Returned Items** and **Return Quantity by Order Method**.

The schedules now display as Enabled.

- In the left pane, click **Upcoming Activities**, use the **Filter** pane to show entries for the next day in the list, and then on the toolbar, click **Refresh**.  
The reports have been scheduled to run every day at 9:00 AM with no end date.
- In the graph, place the cursor over the highest bar.

A section of the result appears similar to the following:



If you do not see a graph, right-click the mouse cursor on the background area of the Upcoming Activities page, and then click Refresh.

There are multiple activities scheduled in the 9:00 AM hour. During this time, you know that the system will be used to handle many interactive run requests and that the reports in question are resource intensive. Therefore to avoid decreased performance for interactive users, you will suspend some of these scheduled activities until a more appropriate time. You have decided that 5:00 PM on the same day will be an appropriate time.

6. In the graph, click the **9** bar.

The list is updated to display activities for the 9:00 AM hour only.

7. In the list, select the **Returned Items**, **Return Quantity by Order Method**, and **Returns by Order Method** check boxes, and then on the **Upcoming Activities** toolbar, click **Suspend** .

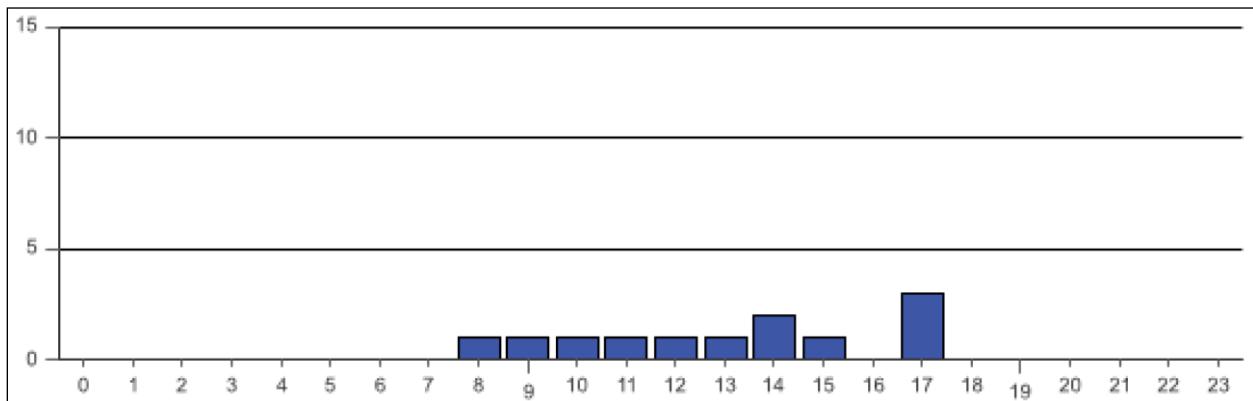
When the Suspend Activities box is opened, the default date and time is taken from the system date and time.

8. In the **Suspend Activities** box, click **Until**.

Selecting Until does not suspend the activity but reschedules it to run at a specified date and/or time. Suspending an activity to a later date and/or time applies only to the selected activity. It does not modify a recurring schedule. To modify the recurring schedule, you must access the Schedule page (under Actions, next to the report, in IBM Cognos Connection).

9. Set the correct day (the next day), set the time to **5:00 PM**, and then click **OK**.

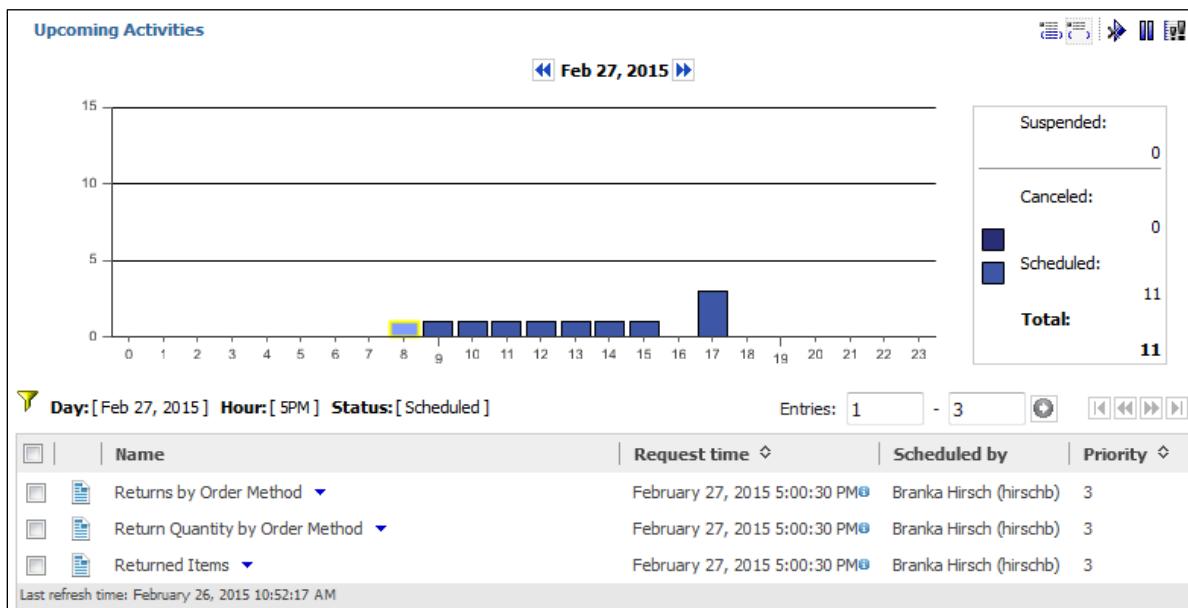
A section of the result appears similar to the following:



The graph is updated to indicate the time to which the activity has been rescheduled.

- In the graph, click the 17 bar (5:00 PM).

A section of the Upcoming Activities (for the next day) pane appears as follows:



The list is updated to display the rescheduled activities. In the Request time

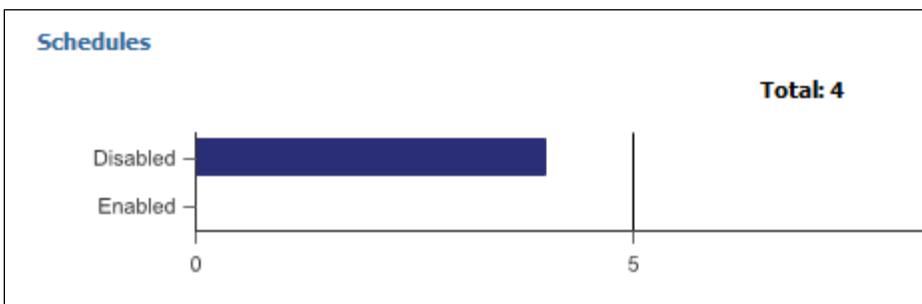
column, notice the icon to the right of the time.

- For the first activity, place the mouse cursor over the icon next to the request time.

A tooltip appears indicating the original request time for the activity.

- In the left pane, click **Schedules**.
- In the Actions list for **Returns by Order Method**, click **Disable the schedule**.

14. Repeat step **13** to disable the schedules for all remaining entries.  
The schedules now display as Disabled.



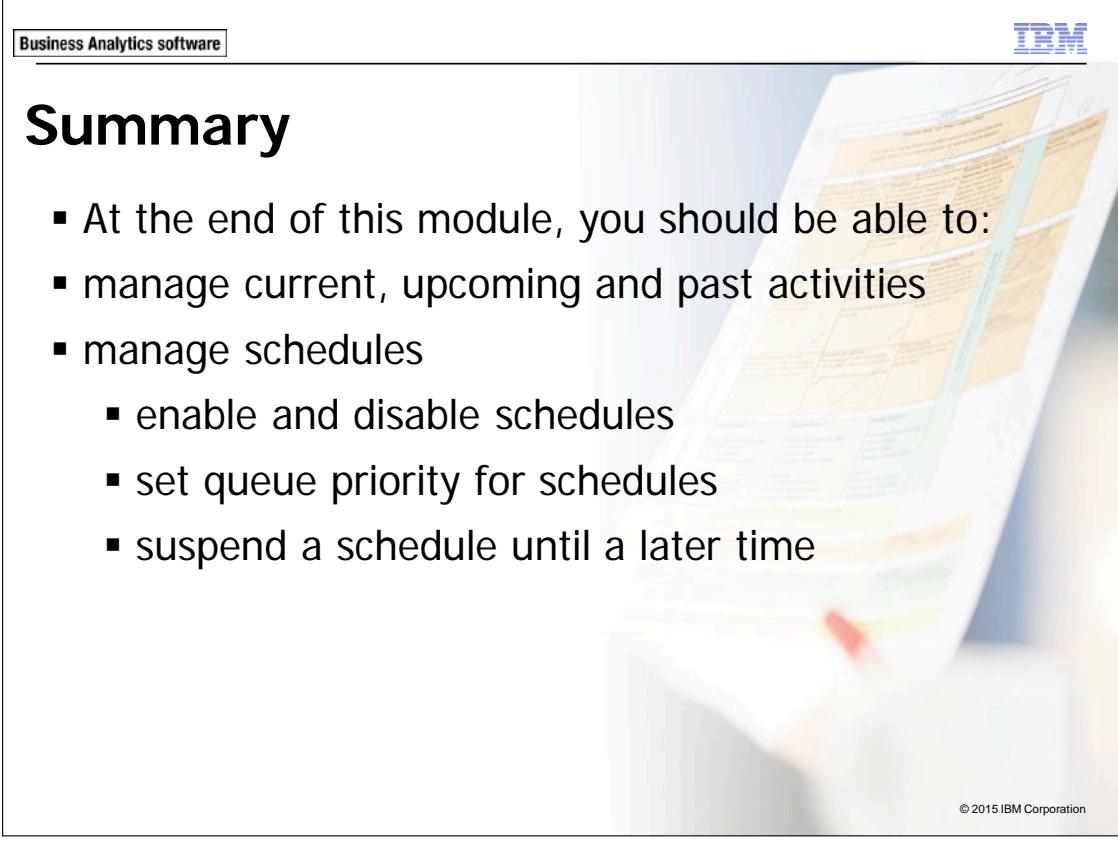
15. Log off **Branka Hirsch**, and then close **Internet Explorer**.

### Results:

You compared the effect of changing the priority of an activity, versus changing the priority of a schedule. After that you explored the effect of disabling and enabling the schedule that was already created.

## Summary

- At the end of this module, you should be able to:
- manage current, upcoming and past activities
- manage schedules
  - enable and disable schedules
  - set queue priority for schedules
  - suspend a schedule until a later time



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# Manage Content in IBM Cognos Administration

IBM Cognos BI 10.2.2

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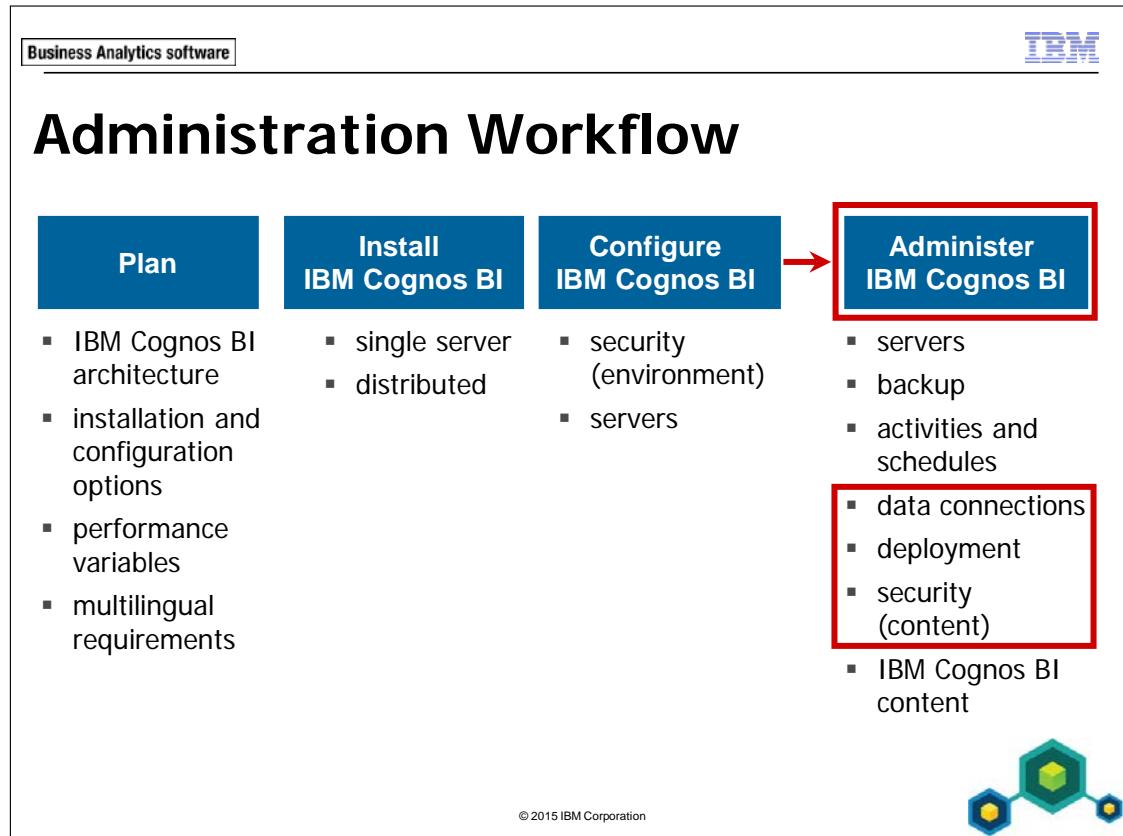
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# Objectives

- At the end of this module, you should be able to:
  - add a data source
  - distribute data and create a distribution list
  - add visualizations to the Library
  - plan and perform a deployment
  - identify how to maintain the IBM Cognos BI content store
  - configure saving content outside of the content store
  - customize the appearance of IBM Cognos BI using styles
  - use portlets to display custom Web content

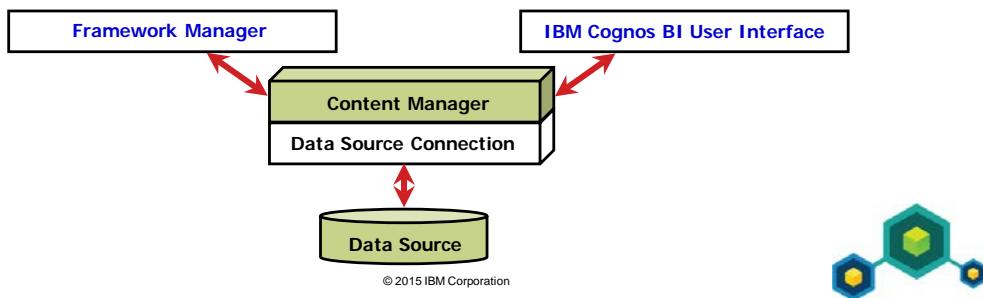
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In this module, you will add data sources, distribute reports, and export and import content. For more information, refer to the *IBM Cognos Business Intelligence Version 10.2.2 Administration and Security Guide*, Chapter 8: Data Sources and Connections, Chapter 23: Deployment, and Chapter 30: Reports and Cubes.

## Add Data Sources

- When you create a data source, you must provide the information required to connect to the database.
- A data source connection supplies the information that IBM Cognos BI needs to connect to an external data source, such as an XML file or a relational database.



When you create a data source, you must also create a data source connection, so that IBM Cognos BI has the connection and authentication information required to connect to the database.

You can create data sources in IBM Cognos Administration or in Framework Manager. Because they are stored on the server, data sources appear in both Framework Manager and the portal, regardless of where they were created.

Dynamic cubes can only be modeled in IBM Cognos Cube Designer after a data source has been created to provide access to the underlying database.

You can add new data source connections, edit string parameters for existing connections, and add multiple connections to an existing data source. For example, you may want a data source to have two or more connections to the same database that have different properties, such as different timeout values or access permissions.

Data sources are stored in the Cognos namespace and must have unique names. For example, you cannot use the same name for a data source and a group.

Administrators can test data source connections for selected servers in a distributed environment to determine whether they are properly configured.

For more information on different types of data sources that can be accessed refer to the *IBM Cognos Business Intelligence Version 10.2.2 Administration and Security Guide*, Chapter 8: Data Sources and Connections.

You can also access data sources using IBM Cognos Virtual View Manager, which provides heterogeneous query access by retrieving data from different data sources using a single connection. The data sources are managed by IBM Cognos Virtual View Manager, and the connections to IBM Cognos Virtual View Manager from IBM Cognos BI are made using an ODBC system DSN.

IBM Cognos BI offers improved query functionality and performance with a dynamic query mode that you can use with supported data sources. Dynamic query mode provides communication to data sources using Java/XMLA connections. IBM Cognos Dynamic Cubes are implemented through dynamic query mode. In addition, dynamic query mode can be used with OLAP over relational and other third party OLAP technologies.

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## Package/Data Source Relationship (1 of 2)

- At runtime:

```
graph LR; HTML[HTML] --> Package[Package]; Package --> DS((Data Source)); DS --> QD((Query Database)); DS -.- Connection[Connection]; DS -.- Signon[Signon];
```

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At runtime, the metadata and data in the report are accessed through a combination of the package from which the report was built, and the data source from which the package was built. The data source includes a connection string to the database and may include a signon that allows access to the database.

There may be multiple connections for a given data source and multiple signons for a given connection.

Each object (report, package, data source, connection, and signon) may have security applied.

The screenshot shows the 'Perform an action - GO Data Warehouse (query)' dialog box. In the 'Available actions:' list, the 'View the package data sources...' option is highlighted with a red box and an arrow points from it to the 'View package data sources - GO Data Warehouse (query)' window. This second window displays a single data source entry: 'Name: great\_outdoors\_warehouse'.

You can view data sources for packages that are in the Public Folders only, not in My Folders.

If you have read access for the data source, the localized name of the data source is shown with its associated icon. If you do not have read access for the data source, Unavailable is displayed instead of the name.

If you have the Data Source Connection capability and the data source referenced in the package does not exist, Unavailable is displayed with the default icon and the data source name in square brackets. If you do not have the Data Source Connection capability, Unavailable is displayed instead of the name.

## Demo 1: View Data Sources Associated with a Package and Add a Data Source

To complete the demos in this module, you should be using the B5A55\_1567ABCD image.

Before doing this demo, in the BI environment, in the **Taskbar**, click **Services** to ensure that the following services are started:

- Apache Directory Server - default
- DB2-DB2COPY1 - DB2
- DB2DAS - DB2DAS00
- World Wide Web Publishing Service
- IBM Cognos

### Purpose:

Your database contains information about the retailers to which the Sample Outdoors Company sells products. To ensure that all reports run correctly, you must be able to access this database through IBM Cognos BI. Previously you deployed the reports, but now you will create a connection to this database and then run a report to ensure that the connection was defined correctly.

Report authors have also indicated that they need to create reports based on data in PowerCubes. You will also add data source connections for these PowerCubes.

Task 1. View the GOSALES and GOSALESDW schemas in IBM DB2.

1. From the **Start** menu, navigate to **All Programs > IBM Data Studio**, and then click **Data Studio 4.1.0.0 Client**.
2. Click **OK**, to accept the default **Workspace**.

3. In the left pane, expand **All Databases** > **localhost** > **DB2**.

The GS\_DB database contains the corporate data for the Sample Outdoors Company. It has been organized into schemas, and tables belonging to the schemas. Later in the demo, you will identify how IBM Cognos BI connects to the appropriate schemas.

4. Right-click **GS\_DB**, and then click **Connect**.
5. In the **Properties for GS\_DB** window, in the **User name** box, type **db2admin**, and then in the **Password** box, type **Education1**.
6. Select the **Save password** check box, and then click **OK**.
7. Expand **GS\_DB**, and then click **Tables**.

In the right pane, you can see the tables belonging to each of the schemas: **GOSALES**, **GOSALESDW**, **GOSALESHR**, **GOSALESMR**, and **GOSALESRT**.

8. In the left pane, expand **Users and Groups**, and then click **Users**. A section of the result appears as follows:

Name
DB2ADMIN
GOSALES
GOSALESDW
STUDENT
USER

In the right pane, you can see the users that have access to the database. You will examine the access rights for the GOSALES user.

9. Click the **GOSALES** user, and then in the **Properties** pane, click **Privileges**.
10. In the bottom pane, click the **Show List**  tab, and then click **Table**. You can see that this user has all access rights to the tables from the GOSALES, GOSALESHR, GOSALESMR, and GOSALESRT schemas. Notice that this user does not have access to the tables within the GOSALESDW schema.
11. In the top pane, click the **GOSALESDW** user. In the bottom pane, notice that this user has access to the tables within the GOSALESDW schema, but no other schemas.
12. Close **IBM Data Studio**.

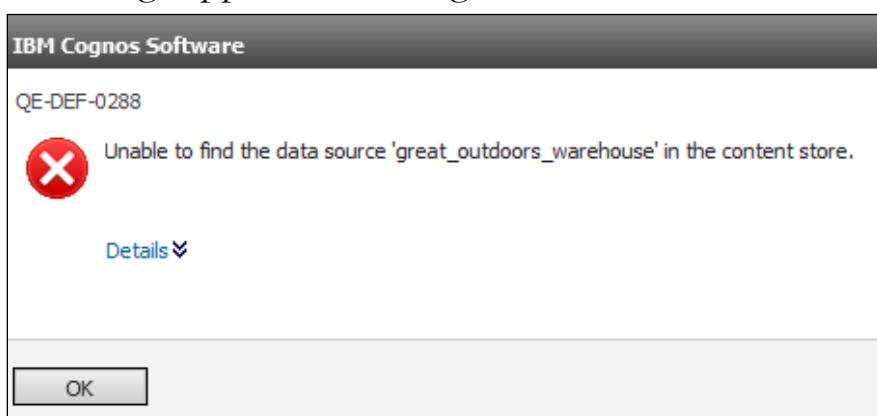
Task 2. Run a report that uses the GO Sales (query) package and report that uses the GO Data Warehouse (query) package.

1. Open **Internet Explorer**, and then navigate to <http://localhost:88/ibmcognos>.
2. Log on as **admin/Education1**.
3. Click **IBM Cognos content**, navigate to **Samples > Models > GO Sales (query) > Report Studio Report Samples**, and then click the **Order Invoices - Donald Chow, Sales Person** report.

The report runs and you are not prompted for database credentials. The metadata and data in the report are accessed through a combination of the package from which the report was built, and the data source from which the package was built. The data source connects to the database through a signon. You will examine these later.

4. On the toolbar, click **Return** , navigate to **Samples > Models > GO Data Warehouse (query) > Report Studio Report Samples**, and then click the **Total Revenue by Country** report.

A message appears indicating that the data source cannot be found.



This indicates that there is currently no data source associated with the package, from which this report was built.

5. Click **OK** to close the message.

## Task 3. View data sources associated with packages.

1. In **IBM Cognos Connection**, in the navigation path at the top of the page, click **Models**.
2. Beside the **GO Sales (query)** package, in the **Actions** column, click **More**, and then click **View the package data sources**.

The great\_outdoors\_sales data source is associated with the GO Sales (query) package.
3. Click **Close**.
4. In the **Actions** column for the **GO Data Warehouse (query)** package, click **More**, and then click **View the package data sources**.



**Unavailable [great\_outdoors\_warehouse]**

There are no data source connections available that are associated with this package. As you saw when you ran the Total Revenue by Country report, you need to add a data source called great\_outdoors\_warehouse that connects to the GOSALESDW schema in the GS\_DB database.

Note: To add or modify a data source connection, you must have Directory Administration capabilities and write access for the data source connection.

This data source uses a connection and signon to retrieve the data at runtime.

5. Click **Close**.

## Task 4. Confirm which data sources, connections, and signons exist.

1. In **IBM Cognos Connection**, log off, and then log on as **watersj/Education1**.

Jeff Waters is a member of the Directory Administrators role.
2. Click **Administer IBM Cognos content**, and then click the **Configuration** tab.

The great\_outdoors\_sales data source is available.

3. Beside **great\_outdoors\_sales**, in the **Actions** column, click **More**, and then on the **Perform an action** page, click **View connections**.



The **great\_outdoors\_sales** data source contains a single connection named **great\_outdoors\_sales**. As you will discover later in the module, a data source can include multiple connections. You will identify the database for this connection.

4. Beside **great\_outdoors\_sales**, in the **Actions** column, click **Set properties**, and then click the **Connection** tab.

This data source connects to a database of type IBM DB2.

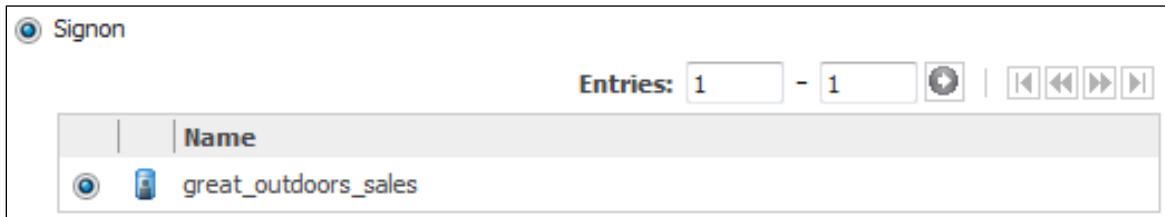


5. Beside the **Connection string** box, click **Edit the connection string**.

The connection is to the GS\_DB database, but as you saw in IBM Data Studio, the database is organized into schemas. So how are you connecting to the GOSALES schema?

6. Under **Testing**, click **Test the connection**.

A signon has been created to facilitate the connection to the database. For data access at runtime (such as running a report), it is through the signon that IBM Cognos BI will know which schema to connect to. You will examine the signon.



7. Click **Close**, and then on the **Edit the connection string** page, click **Cancel**.
8. On the **Set properties** page, click **Cancel** to return to the page displaying the **great\_outdoors\_sales** connection.
9. Click **great\_outdoors\_sales**.

The **great\_outdoors\_sales** connection contains the signon named **great\_outdoors\_sales**.

10. Beside **great\_outdoors\_sales**, in the **Actions** column, click **Set properties**, and then click the **Signon** tab.

Note: For the purposes of this course, although a signon has been created based on the credentials of an individual user, the default of providing access to this signon for the Everyone group has been left unchanged. You can modify who can access the signon. You can also create multiple signons

11. Under **Signon**, click **Edit the signon**.

This signon is configured to connect to the GOSALES schema using the credentials of the GOSALES user. In DB2, you saw that this user has access rights to the appropriate schemas and tables, not including the GOSALESDW schema.

You will create a second data source that will connect IBM Cognos BI to the GOSALESDW schema.

12. Click **Cancel**, and then on the **Set properties** page, click **Cancel**.

## Task 5. Add a data source.

1. In the navigation path at the top of the page, click **Cognos** to navigate to the location of the data sources.



2. On the toolbar, click **New Data Source**.
3. In the **Name** box, type **great\_outdoors\_warehouse**, and then click **Next**.
4. In the **Type** list, click **IBM DB2**.

Notice that the **Configure JDBC** check box is selected. This will let you configure a Dynamic Query Mode connection for this data source.

5. Click **Next**.
6. In the **DB2 database name** box, type **GS\_DB**, and then under **Signon > Signons**, select the **Password** check box.

Alternatively, you can choose:

- a) No authentication, to let IBM Cognos BI access the data source without any signon credentials (if permitted).
- b) External namespace, to let IBM Cognos BI log on to the database using the same credentials that were used to log on to the IBM Cognos BI session. Choose this option if the authentication provider is already used to implement database security.

- In the **User ID** box, type **GOSALESdw**, and then in the **Password** and **Confirm password** boxes, type **Education1**.

You are using these credentials because you know that this user has the appropriate access to the tables in the GOSALESdw schema.

- Under **Testing**, click **Test the connection**, and then click **Test**.

A message appears, indicating that the test was successful.

<b>...&gt; Name</b>	<b>Type / Query Mode</b>	<b>Status</b>
http://vclassbase:9300/p2pd	IBM DB2 / Compatible	Succeeded

- Click **Close**, and then on the **Test the connection** page, click **Close**.

You have configured and tested the Compatible Mode connection. You will now configure the JDBC connection information to establish the Dynamic Query Mode connection.

- On the **Specify the IBM DB2 connection string** page, click **Next**.
- In the **Server name** box, type **localhost**, in the **Port number** box, type **50000** (the port number of the database), and then in the **Database name** box, type **GS\_DB**.
- Click **Test the connection**, and then click **Test**.

<b>...&gt; Name</b>	<b>Type / Query Mode</b>	<b>Status</b>	<b>Message</b>
http://vclassbase:9300/p2pd	IBM DB2 (JDBC) / Dynamic	Succeeded	XQE-DS-0015 getDatabaseProductName: "DB2/NT64".

You have configured and tested the Dynamic Query Mode connection.

- Click **Close**, on the **Test the connection** page click **Close**, and then on the **Specify the IBM DB2 (JDBC) connection string** page, click **Finish**.  
The great\_outdoors\_warehouse data source is added to the list of available data sources.

## Task 6. Run a report to test the data source connection.

- From the **Launch** menu, click **IBM Cognos Connection**, navigate to **Samples > Models > GO Data Warehouse (query) > Report Studio Report Samples**, and then click **Total Revenue by Country**.

The report prompts the user to select from a list of retailer countries.

- Click **Select all**, and then click **Finish**.

The report runs successfully. The data in the report is derived from the GO Data Warehouse (query) package that uses the great\_outdoors\_warehouse data source. The data source uses a connection called great\_outdoors\_warehouse. The connection includes a signon called great\_outdoors\_warehouse that allows for access to the GOSALES DW schema in the GS\_DB database.

- On the toolbar, click **Return**.

## Task 7. Add cubes as data sources.

- Log off, and then log on as **watersj\Education1**.
- Click **Administer IBM Cognos content**, and then click the **Configuration** tab.
- Add a new data source with the following properties:
  - Name: **great\_outdoors\_sales\_en**
  - Type: **IBM Cognos PowerCube**
  - Windows location:  
**C:\Program Files (x86)\IBM\cognos\c10\webcontent\samples\datasources\cubes\PowerCubes\EN\great\_outdoors\_sales\_en.mdc**

Hint: Launch Windows Explorer to copy and paste the file properties rather than typing the path. The path is where IBM Cognos Business Intelligence Samples were installed.

- Test the connection.

<b>...&gt; Name</b>	<b>Type / Query Mode</b>	<b>Status</b>
 <a href="http://vclassbase:9300/p2pd">http://vclassbase:9300/p2pd</a>	IBM Cognos PowerCube / Compatible	Succeeded

5. Click **Close**, on the **Test the connection** page, click **Close**, and then click **Finish**.

You have the option of creating a package based on the `great_outdoors_sales_en` data source. Do not create a package, because one was already imported as part of the course environment set up. However, if you needed to create a package, the New Package wizard lets you enter the package name and a location of your choice.

6. Click **OK**.
7. Repeat steps **3** to **6** to add a new data source (and test it) with the following properties:

- Name: `sales_and_marketing`
- Type: **IBM Cognos PowerCube**
- Windows location:

`C:\Program Files (x86)\IBM\cognos\c10\webcontent\samples\datasources\cubes\PowerCubes\EN\sales_and_marketing.mdc`

The new data sources appear in the list of available data sources.

	Name
<input type="checkbox"/>	<code>great_outdoors_sales</code>
<input type="checkbox"/>	<code>great_outdoors_sales_en</code>
<input type="checkbox"/>	<code>great_outdoors_warehouse</code>
<input type="checkbox"/>	<code>sales_and_marketing</code>

Leave IBM Cognos Administration open.

### Results:

To ensure that all reports run correctly, you created a connection to a database and then ran a report to ensure that the connection was defined correctly. You also added data source connections for PowerCubes.

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## Multiple Data Source Connections

- You can have a single data source in IBM Cognos BI associated with multiple data source connections, signons and databases.

**Data Source in IBM Cognos BI**

**Data Source Connections**

**Database Signons**

**Third Party Databases**

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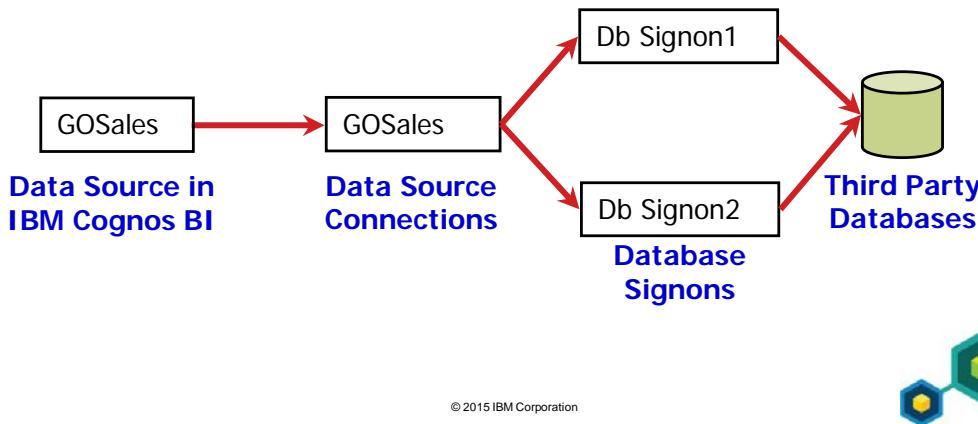
Your data source in IBM Cognos BI is a name used by packages to access metadata and data from the underlying data sources. If you have multiple databases with exactly the same structure (but different data), you can create one data source with multiple connections. The data source connection identifies which database you want to connect to, and the database signon identifies the authentication information.

You can apply security to the connections to determine who can connect to a particular database.

In the scenario shown above, users who have access to both databases will be prompted to select a data source connection when the report is run. Users who have access to only one connection, will not be prompted and they will view the report only using the data source connection, signon, and database that is available to them.

## Multiple Database Signons

- You can have a single data source connection in IBM Cognos BI associated with multiple database signons in a database.



The database signon identifies the user's rights in the database. You can have database signons that have access to different tables. Within a database, you can create the same tables with different owners (or schemas).

In IBM Cognos BI, when you create a database signon, it is automatically assigned to the Everyone group. Later you can modify who can use the signon.

## Demo 2: Add Multiple Connections for a Single Data Source

### Purpose:

You want to simulate a situation in which you have three databases with exactly the same structure. You will create three data source connections, one for each. Next you will modify the permissions on the connections, to grant users access to the data source connection that they require. You will then test the connection. Finally you will delete the extra connections you created and reset the original connection.

### Task 1. Rename the existing data source connection.

1. Click the **great\_outdoors\_warehouse** data source connection.

There is a single connection for the great\_outdoors\_warehouse data source. You will rename this connection.

2. In the **Actions** column, click **Set properties**, in the **Name** box, type **great\_outdoors\_warehouse\_Australia**, and then click **OK**.

### Task 2. Create two additional connections.

1. On the toolbar, click **New Connection** .
2. In the **Name** box, type **gow\_Italy**, and then click **Next**.
3. In the **Type** list, click **IBM DB2**, deselect the **Configure JDBC connection** check box, and then click **Next**.  
You will not configure a dynamic query mode connection at this time.
4. In the **DB2 database name** box, type **GS\_DB**.
5. Under **Signon > Signons**, select the **Password** check box, in the **User ID** box, type **GOSALESdw**, and then in the **Password** and **Confirm password** boxes, type **Education1**.

Note: Because you do not have several schemas with identical structures to choose from in this environment, you added a connection to the same schema.

6. Test the connection.
7. Click **Close**, on the **Test the connection** page, click **Close**, and then click **Finish**.

8. Repeat steps **1** to **7** to add a connection to the **GOSALESDW** schema called **gow\_US**.

You now have three connections for the `great_outdoors_warehouse` data source.

### Task 3. Change permissions for each connection.

1. Beside **gow\_Italy**, in the **Actions** column, click **Set properties**.
2. Click the **Permissions** tab, select the **Override the access permissions acquired from the parent entry** check box, and then add the **Italy** group from the **Cognos** namespace.
3. Select the **Italy** check box, and then in the **Grant** column, select the **Read**, **Execute**, and **Traverse** check boxes.
4. Deselect the **Italy** check box, select the **Everyone** check box, and then click **Remove**.

Notice that the **Directory Administrators** role has access to this connection by default.

5. On the **Set properties** page, click **OK**.
6. Repeat steps **1** to **5**, to grant access to the **gow\_US** data source connection for the **US** group.
7. Repeat steps **1** to **5**, to grant access to the **great\_outdoors\_warehouse\_Australia** data source connection for the **Australia** group.

For the permissions for each connection, notice that the **Directory Administrators** role has access to these by default.

## Task 4. Test the connections by running a report based on the great\_outdoors\_warehouse package.

1. While logged on as Jeff Waters, from the **Launch** menu, click **IBM Cognos Connection**.
2. Navigate to **Samples > Models > GO Data Warehouse (analysis) >Report Studio Report Samples**, and then click **Budget vs. Actual**.

All three connections are available to Jeff Waters as a member of the Directory Administrators role.

3. Click **gow\_Italy**, and then click **OK**.

The report runs as expected.

4. Log off **Jeff Waters**, and then log on as **scottb/Education1**.

Bart Scott is a member of the US group and should only have access to the US data source connection.

5. Click **IBM Cognos content**, and then navigate to and run the **Budget vs. Actual** report.

Bart is not prompted to choose a connection. The report runs using the connection defined for the group to which he belongs.

## Task 5. Remove the extra data source connections and rename the original data source connection.

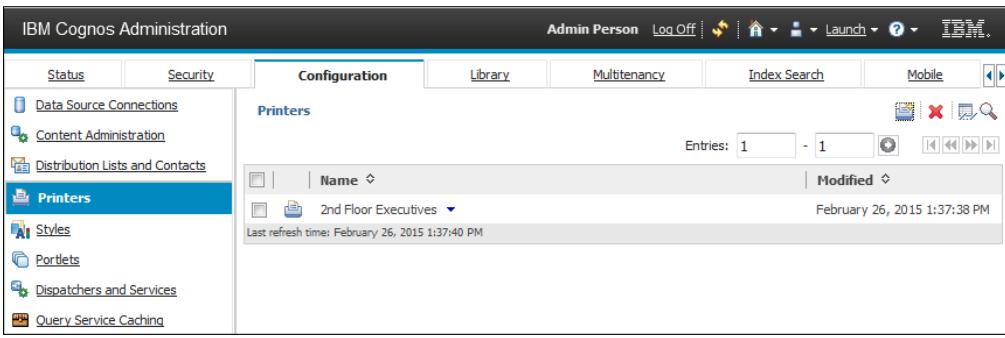
1. Log off **Bart Scott**, and then log on as **watersj/Education1**.
2. Click **Administer IBM Cognos content**, click the **Configuration** tab, and then on the **Data Source Connections** pane, click **great\_outdoors\_warehouse**.
3. Delete **gow\_Italy** and **gow\_US**.
4. Beside **great\_outdoors\_warehouse\_Australia**, in the **Actions** column, click **Set properties**, change the name to **great\_outdoors\_warehouse**, and then click the **Permissions** tab.

5. Remove the **Australia** group, and then add the **Everyone** group from the **Cognos** namespace.
6. Grant the **Everyone** group **Read**, **Execute**, and **Traverse** permissions, and then click **OK**.

Keep IBM Cognos Administration open in this location, logged on as Jeff Waters, to begin the next demo.

### Results:

**You simulated a situation in which you have three databases with exactly the same structure. You created three data source connections, one for each. Next you modified the permissions on the connections, to grant users access to the data source connection that they require. You tested the connection. Finally you deleted the extra connections you created and reset the original connection.**



The screenshot shows the 'IBM Cognos Administration' interface. The top navigation bar includes 'Admin Person', 'Log Off', 'IBM', and various icons. The left sidebar has links for 'Status', 'Security', 'Configuration' (which is selected), 'Library', 'Multitenancy', 'Index Search', and 'Mobile'. Under 'Configuration', there are links for 'Data Source Connections', 'Content Administration', 'Distribution Lists and Contacts', 'Printers' (which is selected and highlighted in blue), 'Styles', 'Portlets', 'Dispatchers and Services', and 'Query Service Caching'. The main content area is titled 'Printers' and shows a list with one entry: '2nd Floor Executives'. The list includes columns for 'Name' (sorted by modified date) and 'Modified'. A status message at the bottom says 'Last refresh time: February 26, 2015 1:37:40 PM'. The footer contains the text '© 2015 IBM Corporation' and a decorative graphic of three hexagons.

When users want to print a report, they can select a printer that you set up without needing to know its network address details. Setting up printers is the responsibility of a directory administrator. Steps outlining how to set up printers are available in the *IBM Cognos Software Version 10.2.2 Administration and Security Guide*, Chapter 2: IBM Cognos Software Administration.

When you create a printer entry, ensure that the printer you define is set up on the computer where IBM Cognos BI is installed. If the printer is not set up, the users cannot use it. To set up printers, you must have Execute permissions for the Administration\Printers capability and you must have write permissions for the Cognos namespace (available to a directory administrator). Use a name that provides details about the printer, such as Color Printer - 4th Floor.

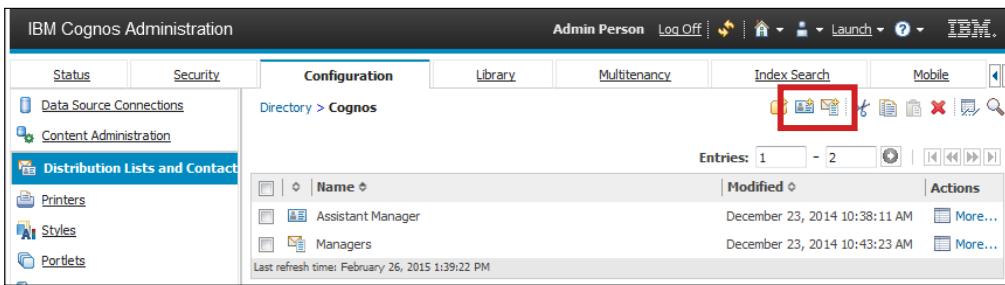
On a Windows installation, the IBM Cognos service is configured to run as a Local System Account by default. To use a shared network resource, such as a printer, the service must be logged on as a valid network account.

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## Create Distribution Lists and Contacts

- Use distribution lists if you want to send a report to more than one recipient at a time.



The screenshot shows the 'IBM Cognos Administration' interface. The left sidebar has links for 'Status', 'Security', 'Configuration' (which is selected), 'Library', 'Multitenancy', 'Index Search', 'Mobile', 'Data Source Connections', 'Content Administration', 'Distribution Lists and Contacts' (which is selected), 'Printers', 'Styles', and 'Portlets'. The main area shows 'Directory > Cognos'. Below is a table with two entries:

Name	Modified	Actions
Assistant Manager	December 23, 2014 10:38:11 AM	<a href="#">More...</a>
Managers	December 23, 2014 10:43:23 AM	<a href="#">More...</a>

At the bottom, it says 'Last refresh time: February 26, 2015 1:39:22 PM'.

Distribution lists contain a collection of users, groups, roles, contacts, or other distribution lists.

If a recipient is not part of the IBM Cognos BI security system, you can create a contact for this person. The contacts you create can also be assigned as contacts for reports.

For more information, see the *IBM Cognos Software Version 10.2.2 Administration and Security Guide*, Chapter 30: Reports and Cubes, in the Distribute Reports section.

## Demo 3: Create a Distribution List

### Purpose:

**The Directory Administrator wants to make sure that Branch Managers receive the Sales by Region report at the same time every month. To accomplish this, you will create a distribution list. Because one of the field managers is not part of your security infrastructure, you will create a contact for this person, and then send the report by email.**

Before beginning this demo, ensure that the Lotus Domino Server (CProgramFilesx86IBMLotusDominodata) service has been started.

### Task 1. Create a distribution list.

1. In the left pane, click **Distribution Lists and Contacts**.
  2. Click **Cognos**, and then on the toolbar, click **New Distribution List** .
  3. In the **Name** box, type **Managers**, click **Next**, and then click **Add**.
  4. Select the **Show users in the list** check box, click **LDAP**, and then click **People**.
- The managers Alice Walter, Corey Wright, and an assistant manager who is not a part of your security infrastructure should be added to the list.
5. Click **Search**, in the text box beside **Search**, type **walter**, and then click **Search**.
  6. Select the **Alice Walter (waltera)** check box, and then click **Add** (yellow arrow).
  7. Repeat steps **5** and **6** to add **Corey Wright** to the **Selected entries** pane, and then on the **Select the recipients** page, click **OK**.  
On the Select the members page the two selected entries are displayed.
  8. Click **Finish**.  
The Managers distribution list is displayed.

## Task 2. Create a contact.

1. On the toolbar, click **New Contact** .
2. In the **Name** box, type **Assistant Manager**, and then in the **Email address** box type **AManager@grtd123.com**.  
The user Assistant Manager is part of Lotus Domino Server (the mail server), but is not in the LDAP namespace.
3. Click **Finish**.

## Task 3. Add a contact to a distribution list.

1. Beside the **Managers** distribution list, in the **Actions** column, click **Set properties**.
2. Click the **Members** tab.  
A list of contacts associated with this distribution list appears.
3. Click **Add**, click **Cognos**, and then select the **Assistant Manager** check box.
4. Click **Add** (yellow arrow), and then click **OK**.  
On the Set properties page, three entries are listed as members of the Managers distribution list.
5. Click **OK**.  
The new contact and distribution list are displayed.

## Task 4. Send a report through email using a distribution list.

1. From the **Launch** menu, click **IBM Cognos Connection**.
2. Navigate to **Samples > Models > GO Data Warehouse (analysis) > Report Studio Report Samples**, and then beside **Returns by Order Method** (Hint: click Next Page), click **Run with options**.
3. Near the top right, click **advanced options**, and then under **Time and mode**, click **Run in the background**.  
You must run the report in the background to have Delivery options enabled.
4. Deselect the **Save the report as a report view** check box, select the **Send the report by email** check box, and then click **Edit the email options**.
5. Delete the contents of the **To** box, click **Select the recipients**, and then click **Cognos**.
6. Select the **Managers** check box (Hint: click Next Page), and then click **To**.
7. Click **OK**, and then on the **Set the email options** page, click **OK**.

8. Click **Run**, select the **View the details of this report after closing this dialog** check box, and then click **OK**.
9. Wait for two minutes, and then at the top right of the **View run history details** page, click **Refresh**.  
You may have to refresh more than once. When the report has run, the **Messages** section indicates that the email messages were sent to 3 recipients.
10. Click **Close**.
11. On the taskbar, right-click **Internet Explorer**, and then click **Start InPrivate Browsing**.
12. Navigate to <http://vclassbase/mail/amanager.nsf>, and then press **Enter**.
13. In the **User name** box, type **Assistant Manager**, in the **Password** box, type **Education1**, and then click **OK**.  
Lotus iNotes opens in the browser window.

14. In the left pane, click **Mail** 
15. Double-click the email from **jwaters** with the subject **Report: Return by Order Method**.  
Click Cancel if a message appears regarding Lotus iNotes 8.5.1 Control, or click X if a message appears regarding running an add-on.  
The report is displayed in the email. You can see that the report was sent to the recipients that are part of the Managers distribution list.
16. In **IBM Lotus iNotes**, on the menu bar on the right, click **Logout**, and then click **Yes** to the message that displays about closing the window.
17. Click **Log Off**.

## Results:

**You created a distribution list containing your field managers. Because one of the field managers is not part of your security infrastructure, you created contact information for this person, and then added the contact to the Managers distribution list. You then sent a report, through email, to the Managers distribution list.**

## Add Visualizations to the Library

- Report consumers use visualizations help to spot patterns and outliers and to understand data.
- Report authors add diverse types of visualizations into reports to provide greater visual understanding and interactivity.
- You make visualizations available to report authors by importing, storing, and managing them in IBM Cognos Administration.

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You must import visualizations from local systems and file shares into IBM Cognos Business Intelligence.

A variety of ready-to-use, customizable visualizations is available from the IBM Analytics Zone

(<https://www.analyticszone.com/homepage/web/visualizationsDownload.action>).

You can choose the visualizations that match your data and answer your business question, and download them to your file system or network shares. Then, use the Library tab to import the visualizations into the library and make them available to the report authors.

Visualizations are included in a full content store deployment. When performing a partial content store deployment, administrators have the option of including visualizations.

## Demo 4: Populate the Visualization Library

### Purpose:

You need to make visualizations available to report authors so they can author reports with greater interactivity and visual appeal. To do this you will import visualizations into the Library and confirm that they are available to authors in Report Studio.

### Task 1. Import visualizations.

1. Log on as **admin/Education1**, click **Administer IBM Cognos content**, and then click the **Library** tab.

There is currently one visualization in the Library. You will import four additional visualizations.

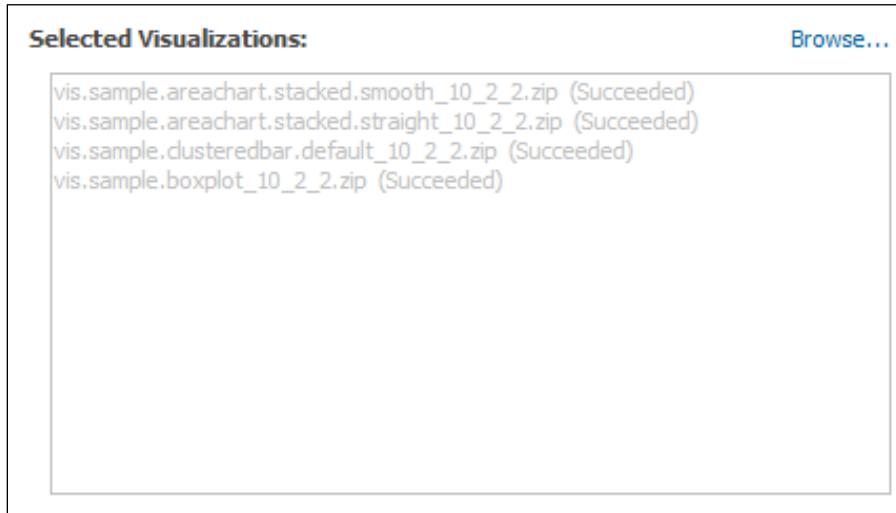
2. On the toolbar, click **Import Visualizations** .
3. Click **Browse**, and then navigate to **C:\Edcognos\B5A55\06-Manage\_Content\_in\_IBM\_Cognos\_Administration**.

The .zip files found at this location have been downloaded from Analytics Zone (<https://www.analyticszone.com/homepage/web/visualizationsDownload.action>) as part of the course set up.

4. Click **vis.sample.areachart.stacked.smooth\_10\_2\_2.zip**, and then click **Open**.
- The file is added to the Selected Visualizations window.
5. Repeat steps **4** and **5** to add any three additional files to the **Selected Visualizations** window.

6. Click **Import**.

After import, the Selected Visualizations window appears as follows (Note: your screen may differ depending on which visualizations you select for import):



7. Click **Close**.

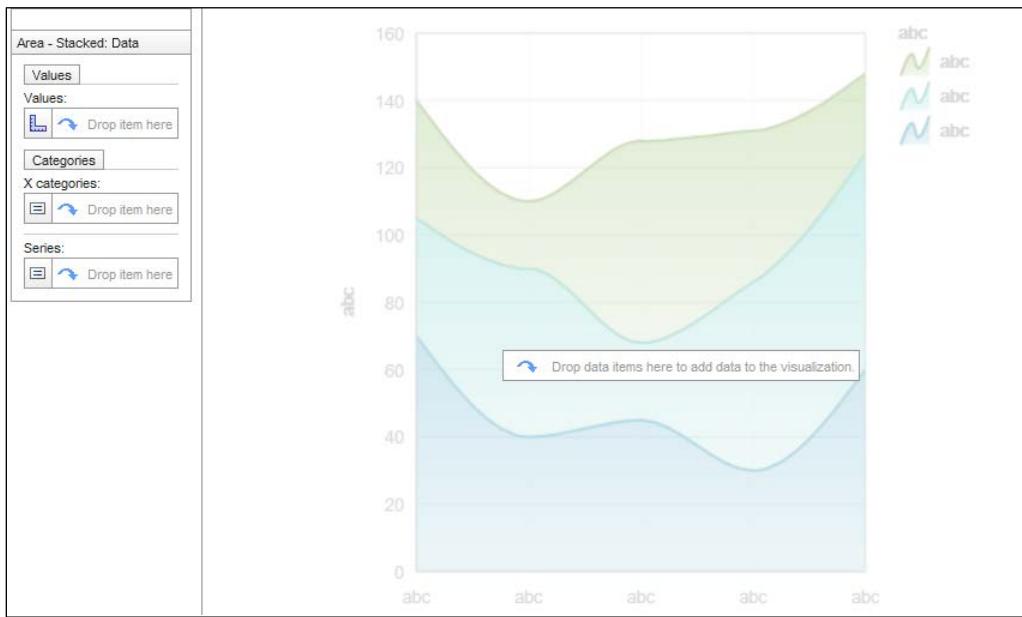
You have successfully imported four additional visualizations into the library.  
You will now confirm that they are available to report authors.

## Task 2. Use visualizations in Report Studio.

1. From the **Launch** menu, click **Report Studio**.
2. Navigate to **Samples > Models**, and then click **GO Data Warehouse (query)**.
3. Click **Create New**, click **Blank**, and then click **OK**.
4. In the left pane, click the **Toolbox** tab.
5. Drag a **Visualization** object to the work area on the right.  
The Visualization Gallery box appears, and includes the five visualizations from the Library.
6. Click **Area - Chart** (or any visualization), and then click **OK**.

- Click **OK** to accept the default names.

The results appear as follows:



The visualization is ready for you to populate with metadata to create the report.

- Close **Report Studio** without saving.

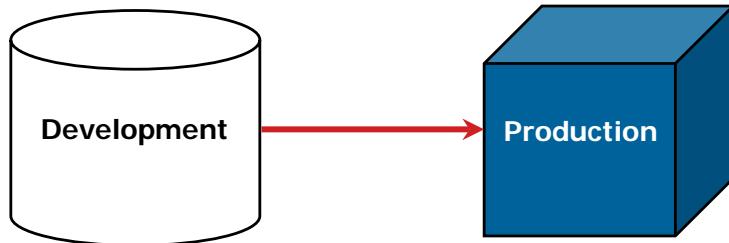
Leave IBM Cognos Administration open.

### **Results:**

**You made visualizations available to report authors so they can author reports with greater interactivity and visual appeal. You imported visualizations into the Library and confirmed that they are available to authors in Report Studio.**

# What is Deployment?

- Move applications from one environment to another.



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In IBM Cognos BI, you deploy packages, top-level folders, or the entire IBM Cognos BI content store from a source environment to a target environment. Typically, deployment is done to transfer the entries created in IBM Cognos BI.

You may be deploying IBM Cognos BI to simply backup your applications or content store. You can also deploy between operating systems.

The deployment can include data sources and access permissions.

# Plan the Deployment

- Consider:
  - security
  - what you want to deploy
    - entire content store or
    - selected packages, folders, and content

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Typically, deployment is done to transfer the entries created in IBM Cognos BI, such as folders, reports, and report views, from a development environment to a test environment and then to a production environment.

You can also deploy between operating systems, such as moving from Windows to UNIX.

After you complete deployment, you can view the deployment history.

For more information refer to the *IBM Cognos Business Intelligence Version 10.2.2 Administration and Security Guide*, Chapter 23: Deployment.

## Deploy the Entire Content Store

- You can deploy the entire content store, which includes all entries in the portal, such as:
  - public folders
  - **users' My Folder content**
  - packages and reports
  - data sources
  - distribution lists and contacts
  - printers
  - schedules

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You can move the entire content store from the old environment to the new environment and keep all the reports and other entries created by administrators and users.

You might want to deploy the entire content store if you are:

- moving a whole application into a new empty environment, such as a new computer, from a development environment
- refreshing a whole application into an existing environment, such as an existing computer, from a development environment
- moving an application from an existing environment that uses a different underlying technology, such as a different database type for the content store, or a different operating system
- upgrading the contents of the content store

## Deploy Specific Content

- You can choose the public folders and directory content that you want to deploy.
- You can include:
  - options (report output versions, run history, schedule)
  - directory content (Cognos roles, distribution lists, data sources and connections)
  - access permissions
  - external namespaces
  - entry ownership
  - users' My Folder content
  - library content (visualizations)

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## Deployment Archives

- A deployment archive is a compressed file that contains the actual IBM Cognos BI content that is deployed.

A deployment archive is created when you export from the source environment.

You move the deployment archive from the source to the target environment. You then import from the deployment archive into the target environment.

A deployment specification defines what goes into the deployment archive and is stored in the content store. A deployment archive is the actual content and is stored on the report server.

A deployment archive can contain sensitive information, such as signons and confidential account or credit card numbers in report outputs. When you export, you can encrypt the deployment archive by setting a password. Later, when you import, you must type the encryption password. The password must contain eight or more characters.

You must encrypt the deployment archive when it contains data source signons or when you deploy the entire content store. The encryption settings are configured in the configuration tool. For more information, refer to the *IBM Cognos Business Intelligence Version 10.2.2 Installation and Configuration Guide*, Chapter 23: Deployment.

## Organize Deployments with Folders

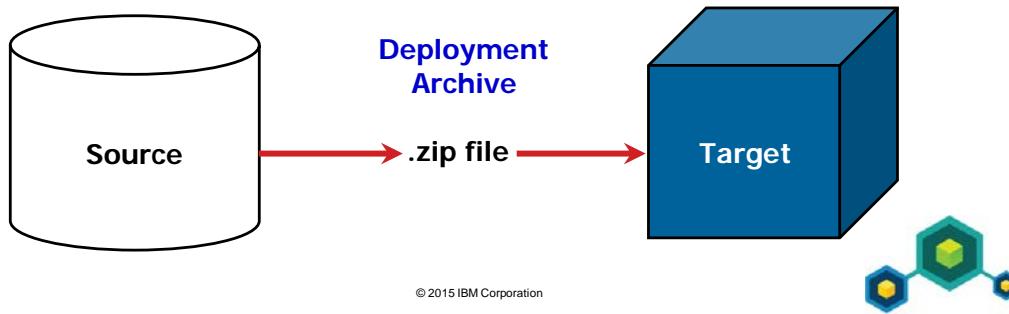
- Create folders to organize your deployments, for example by project, or by date.
- Nest folders.

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## Export and Import Entries

- Export entries to a deployment archive so that you can later import these entries into the target environment.
- You import entries from the deployment archive into the target environment.



You can either export your entire content store, or specific public folders and directory content.

You can import your deployment to any folder, including locations in My Folders.

It is best practice to export and import content as system administrator.

You need to be logged on to all the namespaces to import or export content that is secured.

## Demo 5: Create an Export

### Purpose:

You created and tested your application in the development environment, and want to deploy it to the production environment. You want to deploy the content store, including the access permissions. You will create a folder to hold the deployment specification, and then export the IBM Cognos BI entries into a deployment specification and deployment archive.

### Task 1. Create a deployment folder.

1. Click the **Configuration** tab, and then in the left pane, click **Content Administration**.
2. On the toolbar, click **New Folder**.
3. In the **Name** box, type **Development Environment**, and then click **Finish**.

### Task 2. Create an export.



1. On the toolbar, click **New Export**.
2. Under **Location**, click **Select another location**, click **Development Environment**, and then click **OK**.
3. In the **Name** box, type **GO Data Warehouse**, and then click **Next**.  
You can export the entire content store, or specific public folders, directory, or library content. You want to select the content in a specific package.
4. Ensure that **Select public folders, directory and library content** is selected, and then click **Next**.  
The Select the public folders content page appears.
5. Click **Add**, navigate to **Public Folders > Samples > Models**, and then select the **GO Data Warehouse (analysis)** and **GO Data Warehouse (query)** check boxes.  
You could also add users' My Folder content by selecting the Directory link, and navigating to the user account folder inside the available namespace folders.

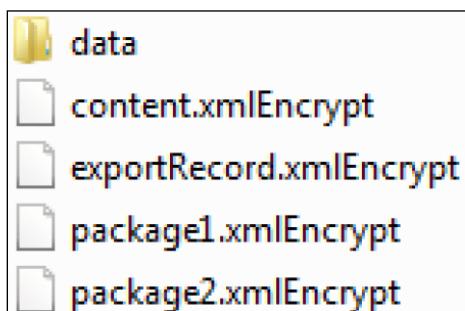
6. Click **Add** (yellow arrow), and then click **OK**.
7. Under **Options**, select the **Include report output versions** and **Include run history** check boxes, accept their default settings, and then click **Next**.  
The Select the directory content page appears.
8. Under **Directory content**, ensure that all check boxes are deselected, and then click **Next**.  
You do not want to overwrite any of the security settings. These are not being changed.  
The Specify the general options page appears.
9. Under **Entry ownership**, ensure that the owner is set as **The owner from the source**, and then click **Next**.  
The Specify a deployment archive page appears.
10. Under **Encryption**, click **Set the encryption password**.
11. In the **Password** and **Confirm Password** boxes, type **password**, and then click **OK**.
12. Under **Deployment archive**, ensure that **New archive** is selected, and that **GO Data Warehouse** appears in the box, and then click **Next**.  
The Review the summary page appears.  
The deployment specification is an entry in the content store that defines the entries to be deployed, deployment preferences, and the name of the deployment archive.  
The deployment archive is a zip file that contains the entries that are deployed. It is created when you export from the source environment.
13. Click **Next**, ensure that **Save and run once** is selected, and then click **Finish**.
14. On the **Run with options** page, ensure that **Now** is selected, click **Run**, and then click **OK**.

## Task 3. View the deployment specification and archive.

You want to ensure that the deployment specification and the deployment archive were created.

1. Click the **Development Environment** folder.  
The GO Data Warehouse export specification appears in the folder.
2. In **Windows Explorer**, navigate to **C:\Program Files\ibm\cognos\c10\_64\deployment**.  
The GO Data Warehouse.zip deployment archive appears in the folder.
3. Double-click **GO Data Warehouse.zip** to open the zip file.

Notice the list of xml files. These include specifications for all items you exported, such as report specifications. Notice the word Encrypt beside each file. This is a result of the encryption password that you specified during deployment. This password is untraceable and must be remembered to access the archived specifications.



4. Close **Windows Explorer**.

Leave IBM Cognos Administration open for the next demo.

### Results:

**For the purpose of deploying your application to the production environment, you created a folder to hold the deployment specification, and then exported the IBM Cognos BI entries into a deployment specification and deployment archive.**

## Demo 6: Create an Import

### Purpose:

You successfully created a deployment archive of the content that was exported, and you are ready to move from the development environment into production. You will create a deployment import and transfer the entries into the production environment.

### Task 1. Delete existing packages and reports.

The course environment consists of a single IBM Cognos BI server instance. Therefore, to simulate moving to a production environment, you will delete the existing package, and any existing reports.

1. On the toolbar, click **Home** .
  2. Navigate to **Samples > Models**, and then select the **GO Data Warehouse (analysis)** and **GO Data Warehouse (query)** check boxes.
  3. Click **Delete** .
- A message appears, warning about possible broken links.
4. Click **OK**.

The Models folder contents appear as follows:

	Name
	Accessible Report Studio Reports
	Cognos Workspace Samples
	GO Sales (analysis)
	GO Sales (query)
	Interactive Samples

## Task 2. Create an import.

1. From the **Launch** menu, click **IBM Cognos Administration**, click the **Configuration** tab, and then in the left pane, click **Content Administration**.
  2. On the toolbar, click **New Folder**.
  3. In the **Name** box, type **Production Environment**, and then click **Finish**.
  4. On the toolbar click **New Import** .
- The Select a deployment archive page appears. You can see the GO Data Warehouse deployment archive that you created previously is included in the list.
5. Select the **GO Data Warehouse** deployment archive, and then click **Next**.
  6. On the **Enter the encryption password** page, in the **Password** box, type **password**, and then click **OK**.
  7. On the **Specify a name and description** page, under **Location**, click **Select another location**, click **Production Environment**, and then click **OK**.
  8. In the **Name** box, ensure **GO Data Warehouse** appears, and then click **Next**.
  9. On the **Select the public folders content** page, select the **GO Data Warehouse (analysis)** and **GO Data Warehouse (query)** check boxes, accept the remaining default settings, and then click **Next**.
  10. On the **Specify the general options** page, click **Next**, and then on the **Review the summary page** click **Next**.
  11. On the **Select an action** page, ensure that **Save and run once** is selected, and then click **Finish**.
  12. On the **Run with options** page, ensure that **Now** is selected, click **Run**, and then on the **IBM Cognos software** page click **OK**.
- The import runs.

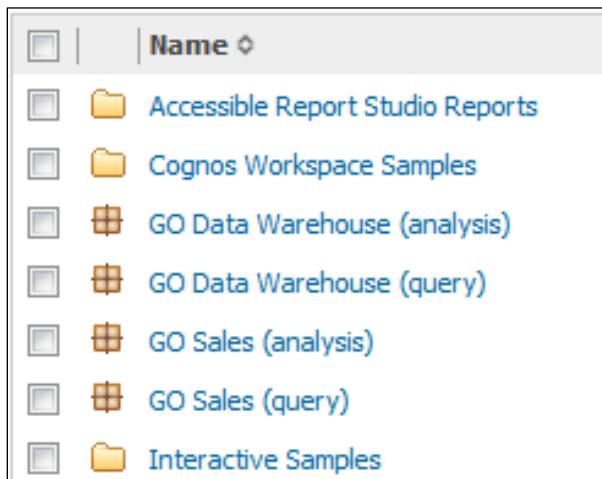
## Task 3. View the deployment history.

1. Click the **Production Environment** folder.
2. Beside the **GO Data Warehouse** import, under **Actions**, click **More**, and then click **View run history**.

Notice the timestamps for the import and that the value in the Status column is Succeeded.

3. Click **Close**, and then on the toolbar click **Return**.

In Public Folders > Samples > Models, notice that the GO Data Warehouse (analysis) and GO Data Warehouse (query) packages have been imported.



Leave IBM Cognos Connection open for the next demo.

### Results:

You created an import based on the GO Data Warehouse export archive. The GO Data Warehouse deployment ran successfully. The entries have now been imported into the production environment and are ready for use.

## Maintain the Content Store

- Create and schedule a content maintenance task to ensure that the information in your content store is current.
- A content maintenance task performs:
  - internal content store maintenance
  - content store maintenance on external namespaces

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Missing data within the content store may cause updates to fail. Obsolete data may prevent you from creating new objects. When a content store maintenance task fixes the content store, it adds default values for the missing data, which you can update later. It also permanently deletes any obsolete data.

When you delete users in your external namespaces using your third-party authentication provider, user account information remains in the content store. By running a consistency check, you can find and remove potentially obsolete information that still exists in the content store.

To ensure that you do not lose any data that you wanted to keep, it is recommended that you choose the find mode first and check the results before fixing the content store. When you find and fix the data, the content store is not fixed while the content maintenance task is running. Instead, Content Manager fixes the inconsistencies in the content store the next time it starts up. Important: After you run a content maintenance task to find and fix the content store, back up your content store before you restart Content Manager. It is recommended that you perform internal maintenance checks regularly, but it is particularly important to do so before you upgrade, to ensure the consistency of the content stores.

You can schedule a content maintenance task as part of a job, or as part of an agent. You can also view the run history of a content maintenance task. To run content maintenance tasks you must be the system administrator.

For the consistency check on external namespaces, you must be logged into all namespaces that you want to check.

## Use an External Object Store to Store Content

- Configure Content Manager to store report outputs to a local drive or network share instead of the content store database.
- Report output is available through IBM Cognos Connection and IBM Cognos SDK, but not stored in the content store database.
  - reduces size of the content store
  - provides performance improvements for Content Manager

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You can enable external object store in IBM Cognos Configuration. Changes take effect once the IBM Cognos service is started or restarted.

Once external object is enabled, all new report outputs will be stored and retrieved from the external object store.

In some cases, you may have a combination of report output versions that are stored in both the content store and in the external object store. As you continue to generate report output versions, the number of those stored in the content store will eventually dwindle over time. The actual time will be dependent on the number of occurrences for report output versions that you have set in the report properties.

## IBM Cognos Content Archival

- To adhere to regulatory compliance requirements, and enhance scalability and performance by reducing the size of the content store, archive report output to your:
  - file system
  - IBM FileNet Content Manager with IBM FileNet CMIS external repository
- Configure a connection to the repository.
- Specify a repository connection at the folder or package level.
- Use content archival content maintenance tasks to archive existing report output.

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To configure a connection to the repository, you must:

1. Edit the Global Configuration settings in IBM Cognos Configuration to point to the repository.
2. Create an External Repository data source connection in IBM Cognos Administration.

Once a repository connection is specified on a package or folder, from that point forward, all new report output is copied to the external repository. To archive existing report output, a content archival content maintenance task must be run.

You can also set content archiving for your users' My Folders by adding repository connections to namespace folders. To archive existing My Folders content, you add a repository connection to a namespace or namespace folder and then select My Folders in the content archival task.

Cognos Content Archival can also be configured as follows:

- Specify an available time to run the archival process.
  - Configure a blackout period to specify when the archive or delete tasks run. A blackout period is a temporary period in which the movement of data is denied. By default, a blackout period is not defined when the software is installed.
  - Use tasksManager.xml file from c10\_location/webapps/p2pd/WEB-INF/cm/tasks/manager.
- Specify thread execution time.
  - Use threads to schedule operating system processing time. The archive and delete background tasks use threads to move content. Threads are units of processing time that are scheduled by the operating system.
  - Use archiveTask.xml file from c10\_location/webapps/p2pd/WEB-INF/cm/tasks/config.
- Archive selected formats of report outputs.
  - Limit archiving to specific output formats. By default outputs of any given format, including PDF, XML, HTML and Excel, are archived.
  - Use archiveTask.xml file from c10\_location/webapps/p2pd/WEB-INF/cm/tasks/config directory.
- Specify that report specifications are not archived.
  - By default, report specification output is archived. Report specifications describe how data was generated within a report. To turn off the archiving of report specifications, you must modify two files: CM.xml and either CM\_FILENOET.xml or CM\_CM8.xml, depending on whether you archive your content to an IBM FileNet Content Manager repository or an IBM Content Manager 8 repository.
  - Use CM.xml file, CM\_FILENOET.xml file, or CM\_CM8.xml file from c10\_location/webapps/p2pd/WEB-INF/repositories/config.

## Demo 7: Save Content to the File System Using Cognos Content Archival

### Purpose:

You want to configure the system so that report output within a package is automatically saved to a file system external repository. You also want to archive existing report output from the package.

### Task 1. Generate report output without Cognos Content Archival enabled.

1. Navigate to **GO Sales (analysis)** > **Report Studio Report Samples**, and then beside the **2011 Quarterly Sales Forecast**, under **Actions**, click **Run with options** .
2. Under **Delivery**, click **Save the report**, click **Run**, and then click **OK**.
3. On the toolbar, click **Refresh** until the **View the output versions for this report** icon is available under the **Actions** column.
4. Click **View the output versions** for this report.  
The Current tab indicates that there is one output version for the report.
5. Click the **Archived versions** tab.  
There are no archived versions for this report.
6. Click **Close**, and then log off.

### Task 2. Create a file location for a file system repository and configure Cognos Content Archival.

1. In **Windows Explorer**, create the following directory:  
**C:\Edcognos\B5A55\06-Manage\_Content\_in\_IBM\_Cognos\_Administration\Cognos\_Content\_Archival**
2. From **Start > All Programs > IBM Cognos 10 - 64**, click **IBM Cognos Configuration**.
3. From the **Actions** menu, click **Edit Global Configuration**, and then beside **Alias Roots**, click in the **Value** column.

4. Click **Edit**, click **Add**, and then set the following:  
**Alias root name:** Cognos\_Content\_Archival  
**URI values:** file:///C:/Edcognos/B5A55/06-  
**Manage\_Content\_in\_IBM\_Cognos\_Administration/**  
**Cognos\_Content\_Archival** (Note: click in the URI values column and then use the Edit button to add the Window URI)
5. Click **OK** to close all dialog boxes, save the configuration, and then restart the **IBM Cognos** service.
6. Click **Close**, and then close **IBM Cognos Configuration**.

### Task 3. Create a repository data source connection.

1. Log on to IBM Cognos BI as **admin/Education1**.
2. Navigate to **IBM Cognos Administration > Configuration > Data Source Connections**, and then click **New Data Source**.
3. In the **Name** box, type **Cognos\_Content\_Archival**, and then click **Next**.
4. In the **Type** list, click **External Repository**, and then click **Next**.
5. In the **Repository Type** list, click **File System**.
6. In the **Repository File System Root** list, leave the default selection of **Cognos\_Content\_Archival**, and then click **Test the connection**.
7. Click **Test**, and then after the **Status is Succeeded**, click **Close**.
8. Click **Close**, and then click **Finish**.

The Cognos\_Content\_Archival data source appears in the list.

### Task 4. Add an external repository connection to a package.

1. From the **Launch** menu, click **IBM Cognos Connection**, navigate to **Samples > Models**, and then beside the **GO Sales (analysis)** package, under **Actions**, click **Set Properties**.
2. Under **External repository**, select the **Override the external repository acquired from the parent entry** check box, and then click **Select a connection**.
3. Click **Cognos\_Content\_Archival**, click **OK**, and then click **OK**.

## Task 5. Generate report output with Cognos Content Archival enabled.

1. Navigate to **GO Sales (analysis)** > **Report Studio Report Samples**, and then beside the **2011 Sales Summary** report, click **Run with options - 2011 Sales Summary** report.
2. Under **Delivery**, click **Save the report**, click **Run**, and then click **OK**.
3. On the toolbar, click **Refresh** until the **View the output versions for this report** icon is available under the **Actions** column for the **2011 Sales Summary** report.
4. Click **View the output versions** for this report.  
The Current tab indicates that there is one output version for the report.
5. Click the **Archived** versions tab.  
There is an archived version for this report.
6. In **Windows Explorer**, navigate to **C:\Edcognos\B5A55\06-Manage\_Content\_in\_IBM\_Cognos\_Administration\Cognos\_Content\_Archival**.  
A single content folder has been archived despite the fact that currently there is saved report output for more than one report in the GO Sales (analysis) package.
7. Navigate the folders to locate the **<object\_id>-en-us.htm.gz** file.  
This compressed file contains the .html report that was archived. Note: the course environment does not have the appropriate software installed to decompress and view the report.
8. In **IBM Cognos Connection**, click **Close**, and then beside the **2011 Quarterly Sales Forecast** report, under **Actions**, click **View the output versions for this report**.
9. Click the **Archived** versions tab.  
There is still no archived version of this report. You will run a Content Archival content maintenance task to ensure that existing report output is archived.

## Task 6. Create and run a Content Archival content maintenance task.

1. Click **Close**, and then from the **Launch** menu, click **IBM Cognos Administration**.
2. Navigate to **Configuration > Content Administration**.
3. On the toolbar, click **New Content Maintenance** , and then click **Content Archival**.
4. In the **Name** box, type **Cognos\_Content\_Archival**, and then click **Next**.
5. Click **Add**, and then under **Available entries**, navigate to **Public Folders > Samples > Models**.
6. Select the **GO Sales (analysis)** check box, click **Add** (yellow arrow), and then click **OK**.
7. In the **Recording level** list, leave the default selection of **Minimal**, click **Next**, and then click **Finish**.
8. Ensure **Now** is selected, and then click **Run**.  
You can also set up a schedule for this task.
9. Select the **View the details of this content maintenance task after closing this dialog** check box, and then click **OK**.
10. Click **Refresh** until a status of **Succeeded** appears.
11. Examine the **Messages**, and then click **Close**.
12. On the toolbar, click **Return**.
13. Beside the **2011 Quarterly Sales Forecast** report, under **Actions**, click **View the output versions for this report**.
14. Click the **Archived** versions tab.  
There is now an archived version of this report.
15. Click **Close**.

16. Return to **Windows Explorer**, and navigate to **C:\Edcognos\B5A55\06-Manage\_Content\_in\_IBM\_Cognos\_Administration\Cognos\_Content\_Archival**.

The results appear as follows:

Name	Date modified	Type	Size
i37A113ACD62A4BF1B0F5D6FD3E9F0FEB	2/18/2015 1:24 PM	File folder	
i7D2AA0BA8E1B49D2972C620278C58492	2/18/2015 1:40 PM	File folder	

Multiple content folders now appear, indicating that existing report output has also been archived.

17. Close **Windows Explorer**.

Leave IBM Cognos Connection open.

### Results:

**You configured the system so that report output within a package is automatically saved to a file system external repository. You also archived existing report output from the package.**

## Save Content to the File System

- You can save report outputs to a file system location outside IBM Cognos BI in different formats including:
  - HTML
  - PDF
  - Excel
  - Delimited text (CSV)
  - XML

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As the administrator, you can allow users to save their report outputs outside IBM Cognos BI.

To let users save reports to a file system, you need to make changes in IBM Cognos Configuration and IBM Cognos Administration. In IBM Cognos Configuration:

- 1) Allow report outputs to be saved to a local file system.
- 2) Set the name of the archive location file system root.

In IBM Cognos Administration:

- 1) Define the file system location.

You can also modify the different output versions that are available for download.

## Demo 8: Save Content to the File System

### Purpose:

You want to configure the system to allow users to save files to the file system. First you will create subdirectories that your users can access. Finally, you will confirm that you can save reports in multiple formats to the file location you have specified.

#### Task 1. Create subdirectories.

1. From the **Launch** menu, click **IBM Cognos Administration**, click the **Configuration** tab, and then in the left pane, click **Dispatchers and Services**.



2. On the toolbar, click **Define File System Locations**.
3. Click **New**, and then in the **Name** box, type **Public Reports**.

This is the name that users will see in IBM Cognos BI when they save a file.

4. In the **File system location** box, type **Reports**.

Reports that you save to the file system will be saved in the Reports folder on the file system root. C:\Edcognos has been specified as the file system root. The Reports folder is created when the files are saved, if it does not already exist.

You can create and secure many save locations within the root specified in IBM Cognos Configuration.

5. Click **Finish**, and then on the **Define file system locations** page, click **Close**.

#### Task 2. Confirm that reports can be saved to the server and the file system in multiple formats.

1. From the **Launch** menu, click **IBM Cognos Connection**.
2. Navigate to **Samples > Models > GO Sales (query) > Report Studio Report Samples**, and then in the **Actions** column for the **Order Invoices - Donald Chow, Sales Person** report, click **Run with options**.
3. Under **Delivery**, click **Save the report**, and then click **advanced options**.
4. Under **Formats**, select the **HTML, PDF, Excel 2007, and XML** check boxes.

5. Under **Delivery**, select the **Save to the file system** check box, and then click **Edit the file system options**.

By default, the file name used is the report name. You can set this to another file name if you want to.

The Location box indicates Public Reports, which is the name of the file system location you set in Task 1. If there are multiple save locations available you can select the one that you want to use.

There are several options for conflict resolution:

- Keep existing files
- Replace existing files (default)
- Make the file names unique and append a timestamp
- Make the file names unique and append a sequence number

6. Click **OK**, click **Run**, and then on the **IBM Cognos** software page click **OK**.
7. After 2 minutes have passed, in **IBM Cognos Connection**, on the toolbar

 click **Refresh**  until you see the **View the output versions for this report**  icon in the **Actions** column.

8. In the **Actions** column, click **View the output versions for this report**.

The output versions that you selected appear as follows:

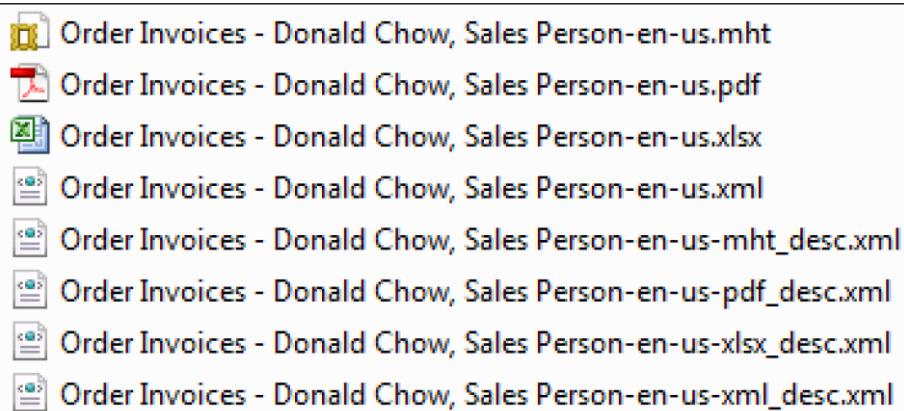
Formats	Languages	Actions
 XML	English (United States)	
 HTML	English (United States)	
 PDF	English (United States)	
 Excel 2007	English (United States)	

You can download the reports that have the Download  icon, to your computer. You can also view the reports that were saved to the server.

Note: If all of the report output versions do not appear, click Close, and then view the output versions again.

9. In the **Versions** entries on the left, click the check box of the version entry that you just created, to select it, and then click **Delete**.
10. Click **OK** to the message regarding confirmation of deleting entries, on the **View report output versions** page click **Close**, and then log off.

11. Close Internet Explorer.
12. Open Windows Explorer, and then navigate to C:\Edcognos\Reports to view the outputs that were created.  
A section of the result appears as follows:



13. Close Windows Explorer.

**Results:**

**You created subdirectories that your users can access, and you confirmed that reports can be saved in multiple formats to the file system location that you specified.**

## Customize the Appearance of IBM Cognos BI

- A style is a defined set of resources, such as images, cascading style sheets, branding images and fonts that control the appearance of the IBM Cognos BI Web interface.
- Users can switch between predefined styles that come with IBM Cognos BI.
- Create styles and make them available to users.
  - Manually - creating a custom style and changing the associated style sheets (.css files)
  - Style Management Utility - automates creation of custom styles.

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Before you can add a custom style, the style resources must exist in the c10\_location/webcontent/skins directory.

To make a style available to end users, you grant execute permissions for the required users, groups, or roles. No other permissions are needed. As a result, the style appears in the users' preferences in IBM Cognos Connection.

Managing styles involves adding new styles, controlling access to styles, and modifying styles. For more information about managing styles refer to the *IBM Cognos Business Intelligence Version 10.2.2 Administration and Security Guide*, Chapter 36: Managing Portlets and Styles.

You can create custom styles based on the predefined styles that can be used to change the appearance of IBM Cognos components. Custom styles that you create and publish using the Style Management Utility can be used as the basis for creating other custom styles. For more information about creating custom styles refer to the *IBM Cognos Business Intelligence Version 10.2.2 Administration and Security Guide*, Chapter 38: Customizing the Appearance of IBM Cognos BI.

## Display Custom Web Content

- You can use portlets to display Web content as part of a portal page.
- IBM Cognos Connection supports IBM Cognos BI portlets and third-party portlets.
- IBM Cognos BI portlets are available to users by default. If you want to make other portlets available, you must import them.

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Managing portlets involves the following tasks:

- importing portlets
- controlling access to portlets
- configuring the portlet cache
- modifying portlets

As an additional task, you may want to change the dispatcher settings to allow the HTML code to be executed in RSS Viewer and Cognos Navigator.

For information on portlets refer to the *IBM Cognos Business Intelligence Version 10.2.2 Administration and Security Guide*, Chapter 36: Managing Portlets and Styles.

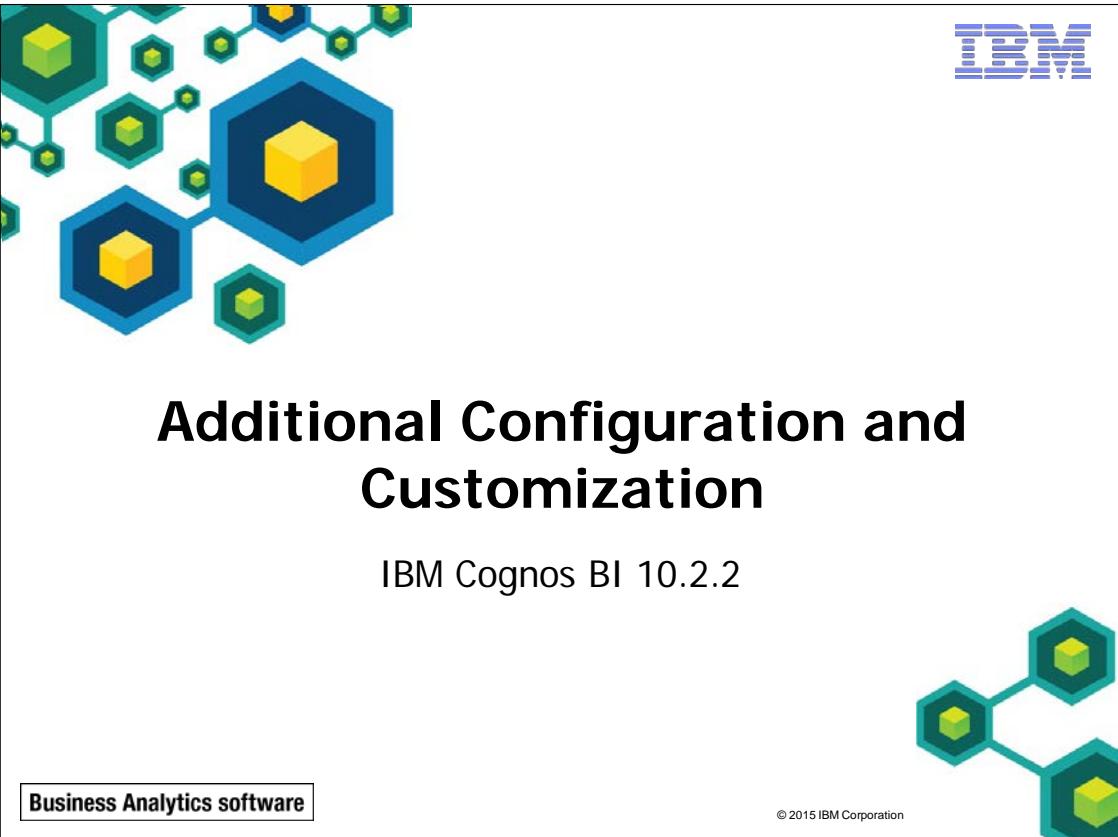
Business Analytics software

IBM

# Summary

- At the end of this module, you should be able to:
  - add a data source
  - distribute data and create a distribution list
  - add visualizations to the Library
  - plan and perform a deployment
  - identify how to maintain the IBM Cognos BI content store
  - configure saving content outside of the content store
  - customize the appearance of IBM Cognos BI using styles
  - use portlets to display custom Web content

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# Objectives

- At the end of this module, you should be able to:
  - manage user profiles
  - identify the Style Management Utility
  - add objects to the Toolbox tab
  - create a custom template option
  - identify how to manage packages through IBM Cognos Connection
  - administer Microsoft Office documents
  - configure a multitenant environment

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## Manage User Profiles

- User profiles contain:
  - portal tab
  - personal folder content
  - user preferences such as product language, the preferred output format of reports, and the style used in the user interface
- The default user profile applies to all new users, and is created when logging on.
- As the directory administrator, you can edit the default user profile for your users.

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You can perform the following tasks on user profiles in IBM Cognos BI:

- deleting user profiles
- copying user profiles
- viewing or changing user profiles

You can copy a user profile in the following situations:

- A user changes names and you are setting up an account in the new name.
- A user moves to another namespace or your organization changes namespaces and you must set up new accounts.
- You are creating many new similar user accounts.

When you copy a user profile, trusted credentials are not copied.

## Demo 1: Manage User Profiles

To complete the demos in this module, you should be using the B5A55\_1567ABCD image.

Before doing this demo, in the BI environment, in the **Taskbar**, click **Services** to ensure that the following services are started:

- Apache Directory Server - default
- DB2-DB2COPY1 - DB2
- DB2DAS - DB2DAS00
- World Wide Web Publishing Service
- IBM Cognos

### Purpose:

**You want to manage user profiles for your users. First you will create a user profile by logging in as a user for the first time. Then you will change the default user profile and see the profile created. Lastly you will copy the profile of one user to another user.**

#### Task 1. Create a user profile.

1. Open **Internet Explorer**, and then navigate to <http://localhost:88/ibmcognos>.
2. Log on as **watersj/Education1**.  
Jeff Waters is a member of the Directory Administrators.
3. Click **Administer IBM Cognos content**, and then on the **Security** tab, with **Users, Groups, and Roles** selected, click **LDAP**, and then click **People**.
4. Locate the **Laura Bauer (bauerl)** entry.



In the Actions column, notice the Create this user's profile icon.

The icon indicates that Laura Bauer does not yet have a user profile. The user profile is created when a user logs in for the first time, or if you, the administrator, make any changes to the user profile.

5. Click **Log Off**, and then log on as **bauerl/Education1**.



6. Click **IBM Cognos content**, on the toolbar click **My Area Options** , and then click **My Preferences**.

On the General tab, the style is the Corporate style, the default view is the List view. Users can modify their own preferences. Administrators can also modify the user profile for a specific user.

7. Click **Cancel**, click **Log Off**, and then log on as **watersj/Education1**.
8. Click **Administer IBM Cognos content**, click **LDAP**, and then click **People**.
9. Locate the **Laura Bauer** entry.

The Create this user's profile icon no longer appears in the Actions column, because you logged in as Laura Bauer earlier and a profile was created at that time.

10. Beside **Laura Bauer (bauerl)**, in the **Actions** column, click **Set properties**, and then click the **Preferences** tab.
11. In the **Style** list, click **Business**, and then in the **Portal** section, for the **Default view**, click **Details**.
12. Click **OK**.

You want to test the changes that you made to Laura Bauer's profile.

13. Click **Log Off**, and then log on as **bauerl/Education1**.

Notice the color scheme has changed to reflect the Business style that was selected in Laura Bauer's profile preferences.

14. Click **IBM Cognos content**.

A section of the results appear as follows:

Name	Modified	Actions
Calgary	March 18, 2015 12:32:11 PM	
Ottawa	March 18, 2015 12:32:21 PM	
Samples 10.2.1 version	April 17, 2013 9:54:00 AM	
Samples_Drillthrough	April 9, 2013 3:21:19 PM	
Samples_Dynamic_Cubes	March 26, 2013 10:31:05 AM	
Samples_PowerCube 10.2.1 version	May 8, 2013 11:08:32 AM	

You changed the user profile for Laura Bauer, but not the default profile. Other users who log in for the first time will still have the same profile as previous users, with the default profile, including the Corporate style.

## Task 2. Change default user profile.

1. Click **Log Off**, and then log on as **watersj/Education1**.
2. Click **Administer IBM Cognos content**, and then click **Cognos**.

3. On the toolbar, click **Edit Default User Profile** .

Any settings that are modified on this page will affect users who do not have user profiles. Users with profiles will not see any changes.

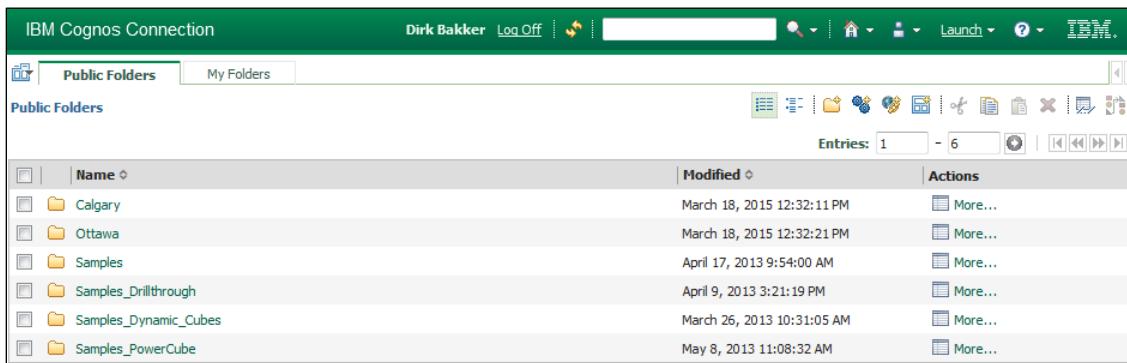
4. Click the **Preferences** tab, in the **Separators in list view** list, click **Alternating backgrounds**, and then in the **Style** list, click **Contemporary**.

5. Click **OK**.

You want to see how your changes affect the next user, Dirk Bakker, who logs in for the first time.

6. Click **Log Off**, and then log on as **bakkerd/Education1**.
7. Click **IBM Cognos content**.

A section of the result appears as follows:



	Name	Modified	Actions
<input type="checkbox"/>	Calgary	March 18, 2015 12:32:11 PM	
<input type="checkbox"/>	Ottawa	March 18, 2015 12:32:21 PM	
<input type="checkbox"/>	Samples	April 17, 2013 9:54:00 AM	
<input type="checkbox"/>	Samples_Drillthrough	April 9, 2013 3:21:19 PM	
<input type="checkbox"/>	Samples_Dynamic_Cubes	March 26, 2013 10:31:05 AM	
<input type="checkbox"/>	Samples_PowerCube	May 8, 2013 11:08:32 AM	

Notice the changes as a result of using the Contemporary style

## Task 3. Copy Dirk Bakker's profile to Laura Bauer.

1. Click **Log Off**, and then log on as **bauer1/Education1**.
2. Click **IBM Cognos content**.

Even though the default profile was changed, Laura Bauer's profile remains the same. You can copy Dirk Bakker's profile to Laura Bauer to update her profile.

3. Click **Log Off**, and then log on as **admin/Education1**.
4. Click **Administer IBM Cognos content**, and then click the **Security** tab.
5. Click **LDAP**, click **People**, and then locate the **Dirk Bakker** entry.
6. In the **Actions** column for **Dirk Bakker**, click **More**, and then click **Copy this user's profile**.

If you were copying the user's profile from one namespace to another, you can delete the source user's profile after the copy completes.

7. Under **Copy to this user's profile**, click **Select the target user**.
8. Click **LDAP**, click **People**, and then locate the **Laura Bauer** entry.
9. Click **Laura Bauer**, and then click **OK**.

You want to copy Dirk Bakker's preferences.

10. Under **Profile settings**, select the **Preferences** check box, click **Copy**, and then click **OK** to continue.
11. Click **Log Off**, and then log on as **bauer1/Education1**.
12. Click **IBM Cognos content**.

Laura Bauer has the same preferences as Dirk Bakker, such as alternating background rows and the Contemporary style.

Name	Modified	Actions
Calgary	March 18, 2015 12:32:11 PM	<a href="#">More...</a>
Ottawa	March 18, 2015 12:32:21 PM	<a href="#">More...</a>
Samples	April 17, 2013 9:54:00 AM	<a href="#">More...</a>
Samples_Drillthrough	April 9, 2013 3:21:19 PM	<a href="#">More...</a>
Samples_Dynamic_Cubes	March 26, 2013 10:31:05 AM	<a href="#">More...</a>
Samples_PowerCube	May 8, 2013 11:08:32 AM	<a href="#">More...</a>

## Task 4. Change default user profile back to its original settings.

1. Click **Log Off**, and then log on as **watersj/Education1**.
2. Click **Administer IBM Cognos content**, and then click **Cognos**.
3. On the toolbar, click **Edit Default User Profile** .
4. Click the **Preferences** tab, in the **Separators in list view** list, click **No separator**, and then in the **Style** list, click **Corporate**.
5. Click **OK**.
6. Click **Log Off**.

### Results:

**First you created a new user profile by logging in as a user for the first time. Then you changed the default user profile and saw the profile created. Lastly you copied the profile of one user to another user.**

## Style Management Utility

- Create custom styles based on the predefined styles that can be used to change the appearance of IBM Cognos components.
- Custom styles that you create and publish using the Style Management Utility can be used as the basis for creating other custom styles.

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The style management utility lets you create, delete, deploy, and publish custom styles to change the appearance of IBM Cognos Connection, IBM Cognos Administration, and other Cognos components.

To run the style management utility, you must have a gateway installed and a dispatcher with a Presentation Service. Also, you must have permissions for the Style and portlets capability.

After creating a custom style using the style management utility, XML style files are then used to make global changes to the appearance of IBM Cognos Connection and IBM Cognos Administration. The utility also validates XML style files, saves the XML files to Content Manager, and publishes new styles making them visible to users. The utility can also delete custom styles.

Since the XML style files created using the style management utility are stored in Content Manager, they can be upgraded.

## Create Custom Toolbox and Template Objects

- Customize the objects that appear in the Report Studio user interface.
- Make it easier to create reports that meet your organization's business requirements.

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Examples of how you can benefit by customization:

- If the Report Studio Toolbox tab does not contain the objects that you require, add or customize the objects available on this tab.
- If existing Report Studio templates do not meet your requirements, you can add or customize the template options available when creating new reports.

## Examine Toolbox Objects

- Toolbox entries are XML report specification snippets.
- Every item on a toolbox tab has a corresponding entry in ToolboxControls.xml and Toolbox.xml.

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In Report Studio, different objects appear on the Toolbox tab depending on which Explorer (Page Explorer, Query Explorer, Condition Explorer) you have open.

## Specify How a Custom Toolbox Object Appears in a Report

### Code in ToolboxControls.xml

```
<!-- List -->
<list id="list" horizontalPagination="true">
    <listColumnBodyStyle/>
    <listColumnTitleStyle/>
    <listColumnStyle/>
    <style>
        <CSS value="border-collapse:collapse"/>
        <defaultStyles>
            <defaultStyle refStyle="Is"/>
        </defaultStyles>
    </style>
</list>
```

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To add a Toolbox object, you must first add XML code to the ToolboxControls.xml file.

This code specifies how the object will appear and how it will behave once it is added to a report from the Toolbox tab.

## Specify Settings for Custom Objects on the Toolbox Tab (1 of 2)

**Reference in Toolbox.xml  
to the textItem and list objects already defined.**

```
<listView id="Toolbox_PageView" classPrefix="clsListItem_tb">
  <listItems>
    <listItem controlRef="textItem" category="A B" idsLabel="IDS_EL_textItem"
      idsTooltip="IDS_EL_textItem" smallIcon="textItem.gif"/>
    <listItem controlRef="list" category="A" idsLabel="IDS_EL_list"
      idsTooltip="IDS_EL_list" smallIcon="list.gif"/>
```

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The Toolbox.xml file has different sections. Each section specifies the Toolbox objects that appear for a specific toolbox view in Report Studio.

To tell Report Studio where to find the definition for the new toolbox object, you must add XML code to the Toolbox.xml file.

This code references the object definition you added to the ToolboxControls.xml file.

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## Specify Settings for Custom Objects on the Toolbox Tab (2 of 2)

**XML code in the Toolbox.xml file**

```
<listView id="Toolbox_PageView" classPrefix="clsListItem_tb">
  <listItems>
    <listItem controlRef="list" category="A" idLabel="IDS_EL_list"
      idToolTip="IDS_EL_list" smallIcon="list.gif"/>
```

**Toolbox tab**

Use the Toolbox.xml file to specify how the object will appear on the Toolbox tab.

You can specify:

- the label used to describe the object
- the tooltip that appears when users point to the object
- the icon that appears on the Toolbox tab for this object

## Demo 2: Add an Object to the Toolbox Tab

### Purpose:

**Report authors want to enhance their reports with a corporate graphic. You will add an object containing this graphic to the Toolbox tab so that report authors can use this object when creating report pages.**

Note: Before adding toolbox entries some knowledge of the XML specification is recommended.

### Task 1. Examine the existing toolbox objects in Report Studio.

1. Log on as **hirschb/Education1**.
2. Click **Author advanced reports**, navigate to **Samples > Models**, and then click the **GO Data Warehouse (query)** package.
3. Click **Create New**, and then double-click **Blank**.
4. In the **Content** pane, click the **Toolbox** tab .
5. On the **Explorer** bar between the **Content** pane and the work area, point to  **Query Explorer**, and then click **Queries**.  
Examine the items on the Toolbox tab.  
This toolbox view contains objects that can be used when working with the queries in a report.
6. On the **Explorer** bar, point to **Page Explorer**, click **Page1**, and then examine the objects that appear on the **Toolbox** tab.  
This toolbox view contains objects that you can add to report pages. You want to add a new object to this Toolbox.

## Task 2. Examine and back up the Toolbox.xml and ToolboxControls.xml files.

You will examine and back up the .xml files that specify which items appear in the Report Studio toolboxes. You will use eclipse to work with the .xml files in this demo, but you could also use a text editor or an xml editor.

1. On the taskbar, click **eclipse** , when prompted, leave the default entry for **Workspace**, and then click **OK**.
2. Close the **Welcome** page tab.  
If a message Usage Data Upload window appears, click Cancel.
3. From the **File** menu, click **Open File**.
4. Navigate to **C:\Program Files\IBM\cognos\c10\_64\webcontent\pat\res**, click **Toolbox.xml**, and then click **Open**.
5. In the **Toolbox.xml** pane, click the **Source** tab, and then **Maximize** to see the contents of the source.
6. Review the source, and notice that there is one set of <listView> tags for each toolbox instance in Report Studio.

For example, near the top of the file, the tag for the toolbox view that is visible when working on a report page is `<listView id="Toolbox_PageView" classPrefix="clsListItem_tb">`.

Each <listItem> tag defines a toolbox entry. Each <listItem> tag contains attributes that define how the entry appears on the Toolbox tab, such as the icon that appears on the Toolbox tab.

Before you modify this file, you need to back up the Toolbox.xml file so that you can restore it later if necessary.

7. From the **File** menu, click **Save As**, and then in the **Name** box, type **Backup\_Toolbox.xml**.
8. Navigate to **C:\Edcognos\B5A55** and then click **Save**.
9. Close the **Backup\_Toolbox.xml** tab.

10. In **eclipse**, open the **ToolboxControls.xml** file located at **C:\Program Files\IBM\cognos\c10\_64\webcontent\pat\res**.

This file contains the definitions of the individual toolbox objects. Each object's definition specifies how the object will appear and behave when added to the report from the Toolbox tab. The id attribute is the name referenced in the **Toolbox.xml** file.

Before you modify this file, you need to back up the **ToolboxControls.xml** file so that you can restore it later if necessary.

11. From the **File** menu, click **Save As**, and then in the **Name** box, type **Backup\_ToolboxControls.xml**.
12. Navigate to **C:\Edcognos\B5A55**, and then click **Save**.
13. Close the **Backup\_ToolboxControls.xml** file tab in **eclipse**.

### Task 3. Add the required object to a blank report and copy the object's xml specification.

The easiest way to get a new toolbox item is to create the item in Report Studio and then copy the report specification for the item. You will add a spinning cube graphic to the report layout. You will then view the XML code used to create this object.

1. In **Report Studio**, from the **Toolbox** tab, drag an **Image** object to the report layout area.
2. Click the **Image** object you just added, and then in the **Properties** pane, under **URL Source**, double-click the **URL** property.
3. Click **Browse**, and then navigate to <http://localhost:88/ibmcognos/samples/images>, click **cube.gif**, and then click **OK** in each open dialog box.

The image, a spinning cube, appears in the report.

4. With the **Image** object still selected in the report layout, from the **Tools** menu, click **Show Specification (Selection)**.

The specification for the image appears in the Report Specification XML box. You will add this code to the ToolboxControls.xml file.



```

Report Specification XML

- <image>
  - <dataSource>
    <staticValue>http://localhost:88/ibmcognos/samples/images/cube.gif</staticValue>
  </dataSource>
</image>

```

5. Close the **Report Specification XML** window, and then with the **Image** object still selected in the report layout, from the **Edit** menu, click **Copy**. This copies the XML snippet to the clipboard with the RSClipboardFragment opening and closing tags, which is context information. You will delete these tags later.
6. Close **Report Studio** without saving the report, log off, and then close all instances of **Internet Explorer**.

#### Task 4. Edit the ToolboxControls.xml file to add the cube graphic to the list of Toolbox objects.

1. In **Eclipse**, open **ToolboxControls.xml**, and maximize the pane. You will see this in the File menu, near the bottom, as a recently opened file.
2. Near the top of the file, place the cursor at the end of the **<xmlFragment id="ToolboxControls">** tag, and then press **Enter** twice.
3. From the **Edit** menu, click **Paste**. The specification for the cube image is added to the file.
4. At the beginning of the image specification code that you just added, type **<!-- Spinning Cube -->**.
5. Delete the following text from the code: **<RSClipboardFragment version="2.0">**.
6. Change the opening **<image>** tag so it appears as follows: **<image id="SpinningCube">**. You will use this id to reference the object from the Toolbox.xml file.

7. At the end of the image specification code, delete the following text:  
**</RSClipboardFragment>**.

The final code for this object appears as follows (spacing may vary):

```
<xmlFragment id="ToolboxControls">

    <!-- Spinning Cube --><image id="SpinningCube">
        <dataSource>
            <staticValue>http://localhost:88/ibmcognos/samples/images/cube.gif</staticValue>
        </dataSource>
    </image>
```

This text adds the image object to the list of toolbox objects, specifies the id for the image, and specifies the name and location of the graphic used for this image.

8. Save the file, and then close the file tab in **eclipse**.

## Task 5. Edit the Toolbox.xml file to make the spinning cube object available when creating report layouts in Report Studio.

1. In **eclipse**, open **Toolbox.xml**, and maximize the pane.

You want to add the object to the toolbox items that are available when working on the report layout.

You will begin by adding a reference for this object in the Toolbox.xml file using the id attribute of the object.

2. In the **<listView id="Toolbox\_PageView" classPrefix= "clsListItem\_tb">** section, place the cursor to the right of the opening **<listItems>** tag.

You will add a label that will appear beside the icon for this object on the Toolbox tab. You will add a tooltip that will appear if users point to the object on the tab. You will add an icon that will appear beside the label for this object on the Toolbox tab. Icons are stored in the **<Cognos 10 Installation Location>/IBM/cognos/c10/webcontent/samples/images** folder.

3. Press **Enter** twice, and then type the following:

```
<listItem id="SpinningCube" value="SpinningCube" category="A G"
label="Spinning Cube" tooltip="Spinning Cube"
smallIcon="cube.gif"/>
```

4. Save the file, and then close the file tab in **eclipse**.

## Task 6. Open Report Studio and view the toolbox object.

1. Open **Internet Explorer**, clear the browsing history, and then log on to IBM Cognos BI as **hirschb/Education1**.

2. Click **Author advanced reports**, navigate to **Samples > Models**, and then click the **GO Data Warehouse (query)** package.

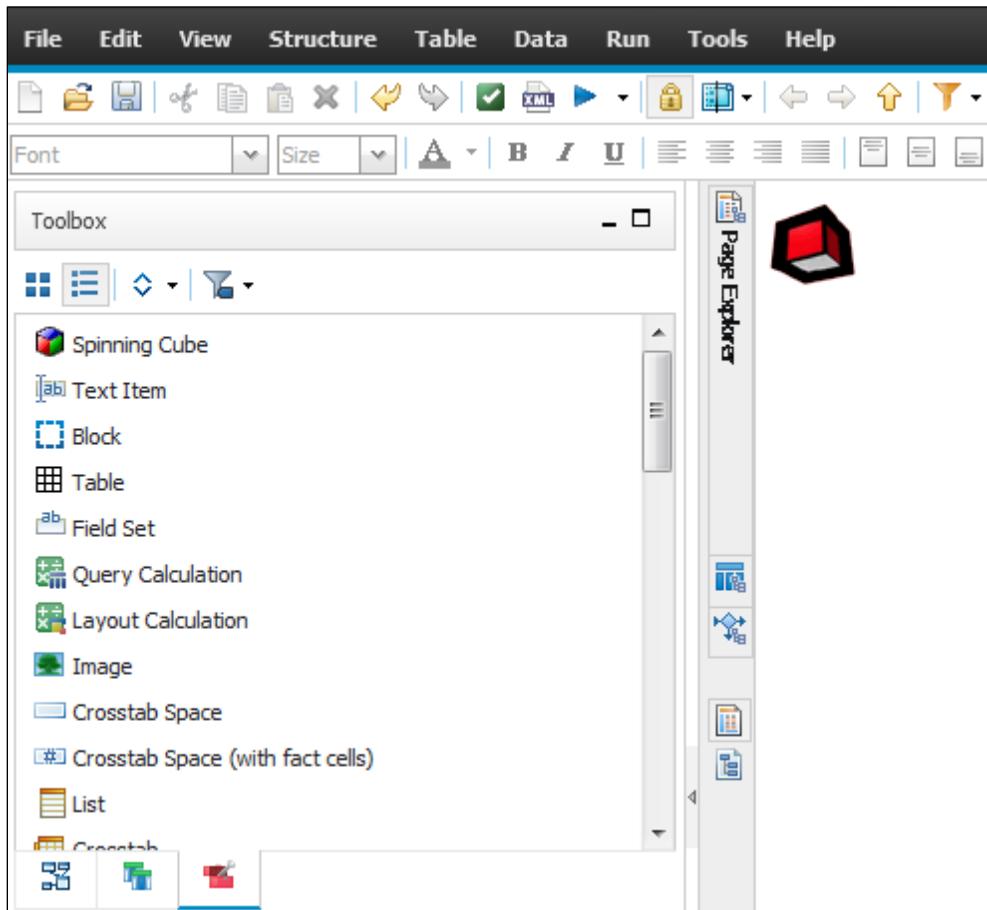
You could open a different package, as the toolbox change is not package-specific, but you will use the one that you opened earlier in this demo.

3. Click **Create New**, and then double-click **Blank**.
4. Click the **Toolbox** tab.

The new object appears at the top of the Toolbox tab pane.

5. From the **Toolbox** tab, drag a **Spinning Cube** object to the work area.

A section of the result appears as follows:



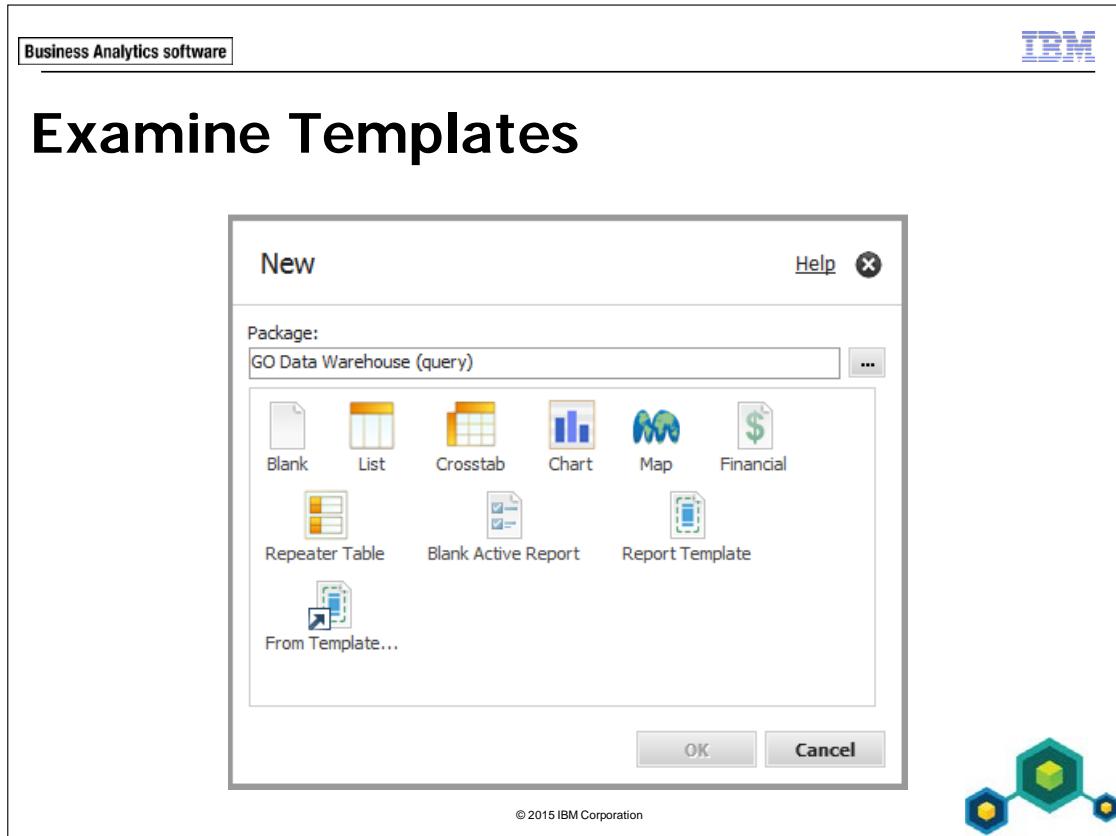
6. In the work area, click the **Image** object you just added.

In the Properties pane, notice that the URL property is set to use the graphic that you specified in the ToolboxControls.xml file.

Leave Report Studio and eclipse open for the next demo.

**Results:**

**You added a Spinning Cube object to the Toolbox tab in the report layout view. Report authors can now quickly add this object to report pages.**



When you create a report in Report Studio, you can choose from a variety of existing templates.

If the default options do not meet your requirements, you can add additional template options to this dialog box.

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## Specify the Custom Template Contents

```
<template name="Blank">
<report useStyleVersion="10" expressionLocale="en-us">
<modelPath/>
<drillBehavior modelBasedDrillThru="true"/>
<layouts>
<layout>
<reportPages>
<page>
<style>
<defaultStyles>
<defaultStyle refStyle="pg"/>
</defaultStyles>
</style>
<pageBody>
<style>
<defaultStyles>
<defaultStyle refStyle="pb"/>
</defaultStyles>
</style>
<contents/>
</pageBody>
</page>
</reportPages>
</layout>
</layouts>
</report>
</template>
```

**Code used to define the Blank template in the templates.xml file**

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To add a new template option, you must add XML code defining this template to the templates.xml file.

You must add code to the Resources.xml file so Report Studio can find the template specification.

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## Add the Template Option to the New Dialog Box

**XML code in the Resources.xml file**

```
<listItem idLabel="IDS_LBL_NEW_BLANK_REPORT" icon="icon_blank.gif"  
templateName="Blank"/>
```

A red arrow points from the XML code block to the "Report Template" icon in the "New" dialog box.

The screenshot shows the "New" dialog box with the package "GO Data Warehouse (query)" selected. The "Report Template" icon is highlighted with a red box and an arrow. Other icons include Blank, List, Crosstab, Chart, Map, Financial, Repeater Table, Blank Active Report, and From Template... buttons at the bottom. The dialog has "OK" and "Cancel" buttons at the bottom right. A copyright notice "© 2015 IBM Corporation" is at the bottom center. A decorative graphic of interconnected hexagons is in the bottom right corner.

Use the Resources.xml file to determine how the template option will appear in the New dialog box.

In this file, specify a label and an icon for the template option.

## Demo 3: Add a Custom Template Option

### Purpose:

**Management wants future reports to use a standard corporate template. However, report authors do not want to have to search for it each time they create a report. You will create a custom template that fulfills these requirements and add it to the list of available templates that appear in the New dialog box. After you have done this, report authors can select this template from the Report Studio New dialog box when creating reports.**

Task 1. Examine and back up the Resources.xml and templates.xml files.

1. In **eclipse**, from the **File** menu, click **Open File**, and then in **C:\Program Files\IBM\cognos\c10\_64\webcontent\pat\res**, double-click **Resources.xml**, and maximize the pane.
2. From the **Edit** menu, click **Find/Replace**.
3. In the **Find** box, type the string (or a portion of the string, such as "New") to locate the following tag, and then click **Find**:  
**<listView id="New" view="icon" clipLabels="false">**
4. Click **Close**.

Each **<listItem>** tag specifies a label, an icon, and a template name for a template option that appears in the New dialog box.

- The Label attribute refers to the named entry in the templates.xml file.
- The icon attribute refers to an image stored in the **C:\Program Files\IBM\cognos\c10\_64full\webcontent\pat\images** directory.
- The value attribute refers to the label the user sees in the New dialog box (for example, List).

Before you modify this file, you should to back up the Resources.xml file so that you can restore it later if necessary.

5. Save the file as **Backup\_Resources.xml**, in **C:\Edcognos\B5A55**.
6. Close the **Backup\_Resources.xml** file tab in **eclipse**, and then open the **C:\Program Files\IBM\cognos\c10\_64\webcontent\pat\res\templates.xml** file.

Each template is defined between the `<report></report>` tags and is a valid report specification.

Notice that the name attribute for each template option contains the same name as the value attribute in the Resources.xml file.

Before you modify this file, you should back up the templates.xml file so that you can restore it later if necessary.

7. Save the file as **Backup\_templates.xml** in **C:\Edcognos\B5A55**.
8. Close the **Backup\_templates.xml** file tab in **eclipse**.

## Task 2. Create a report with a background image in Report Studio.

You will create the template containing the corporate formatting that management requires, and you will use this specification to add the template to the New dialog box.

1. While still logged in as **Branka Hirsch**, in **Report Studio**, from the **File** menu, click **New**.
2. Click **No** to saving the previous report, and then in the **New** dialog box double-click **List**.

You are using the GO Data Warehouse (query) package. You will create a list report because it contains more header and footer formatting than a blank report, but the list object is not required for the template.

3. In the report layout, click the list **Container Selector**  and then on the toolbar, click **Delete** .

You want to add the corporate logo as a background image in your template.

4. From the **View** menu, click **Page Structure**, in the work area, click **Page-Page1** to select it, and then in the **Properties** pane, under **Color & Background**, double-click the **Background Image** property.
5. Click **Specified**, and then beside the **Image URL** box, click **Browse**.

6. In the `http://localhost:88/ibmcognos/samples/images` directory, click `cover2.jpg`, and then click **OK**.
7. Under **Tiling**, click **Do not tile**, and then click **OK**.
8. From the **View** menu, click **Page Design**.

The image appears in the background on the report page layout.

### Task 3. Add a report header and copy the report specification to the clipboard.

You want to add a cube icon and a corporate title to the top of the template report.

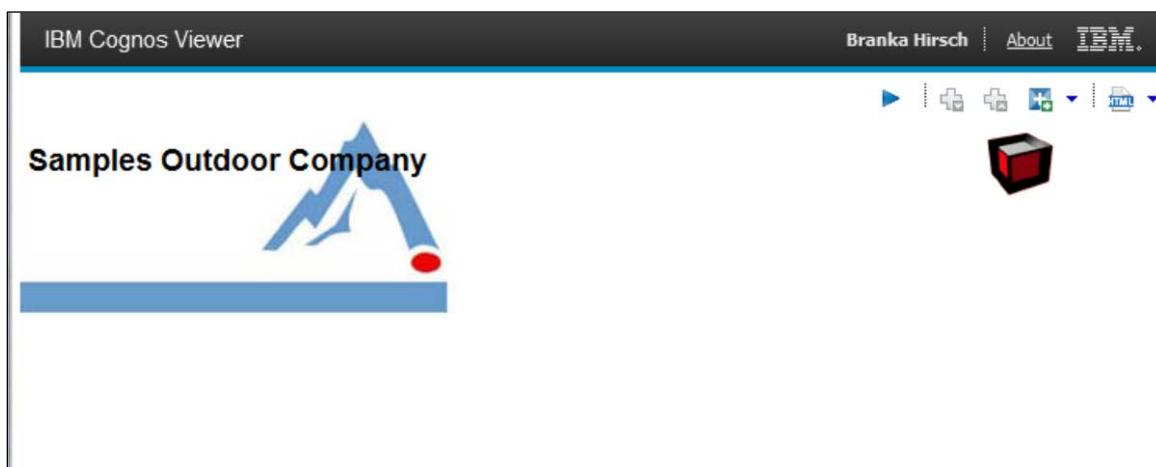
1. Click the **Toolbox** tab, and then drag a **Table** object to the left of the block containing the report title text, using the single line drop zone so that the **Table** object is added above the **Block** object.
2. Click **OK** to accept the default row and column numbers, and then from the **Toolbox** tab, drag a **Spinning Cube** object to the right cell of the table.
3. From the **Toolbox** tab, drag a **Text Item** object to the left cell of the table, type **Sample Outdoors Company**, and then click **OK**.
4. Click the text that you just added, and then in the **Properties** pane, under **Font & Text**, double-click the **Font** property.
5. Change the **Size** to **14pt**, change the **Weight** to **Bold**, and then click **OK**.

A section of the result appears as follows:



6. On the toolbar, click **Run Report** .

A section of the result appears as follows:



7. Close **IBM Cognos Viewer**.

You have completed the template and will copy the report specification to the clipboard.

8. In **Report Studio**, from the **Tools** menu, click **Copy Report to Clipboard**, and then close **Report Studio** without saving.

#### Task 4. Add the XML report specification to the templates.xml file.

1. In **eclipse**, open the **templates.xml** file, and maximize the pane.
2. Click to the right of the opening `<xmlFragment id="ReportTemplates">` tag, press **Enter** twice, and then from the **Edit** menu, click **Paste**.
3. At the beginning of the specification that you just pasted, type `<template name="CorporateTemplate">`.  
You will use this template name to reference the template from the Resources.xml file.
4. Select the `<report xmlns="http://developer.cognos.com/schemas/report/12.0/" useStyleVersion="10" expressionLocale="en-us">` tag, and then type `<report>` to replace the selected text.  
You want authors to be able to use this template when working with any data source, so you will modify the data source references.

5. Highlight the <modelPath>/content/folder[@name='Samples']/folder[@name='Models']/package[@name='GO DATA Warehouse (query)']/ model[@name='model']</modelPath><drillBehavior modelBasedDrillThru="true"/> text, and then type <modelPath/> to replace the highlighted text.

The beginning section of the Corporate Template entry appears as follows (spacing may be different):

```
<xmlFragment id="ReportTemplates">
<template name="CorporateTemplate">
<report>
    <modelPath/>
    <layouts>
        <layout>
```

6. At the end of this report specification (just before where the specification for the Blank template begins) after the </report> tag, type </template>.

Note: If required do a search on <template name="Blank"> to locate the appropriate position.

The end of the Corporate Template entry appears as follows:

```
</report></template>
```

7. Save and close the **templates.xml** file tab in **eclipse**.

## Task 5. Edit the Resources.xml file to reference the template, and then include an icon and template name to display in the New dialog box.

1. In **eclipse**, open the **Resources.xml** file, and maximize the pane.
2. Locate the following tag:  
`<listView id="New" view="icon" clipLabels="false">`
3. Below this, place the cursor to the right of the opening `<listItems>` tag.
4. Review the items in the code, which use **idsLabel**.

In this customization, you will use label to specify a text string for the template that appears in the New dialog box. Use this attribute instead of the idsLabel attribute for the custom template when you do not want to translate the label into other languages, which eliminates the need to use the string resource files, such as reportstudio\_en.xml or reportstudio\_fr.xml, in the c10\_location\webcontent\pat\res directory. Use idsLabel, if you want to translate the label into other languages. For more information on this technique refer to the *IBM Cognos Business Intelligence Version 10.2.2 Administration and Security Guide*, Chapter 38: Customizing the Appearance of IBM Cognos BI.

5. Press **Enter** once, and then type the following to add a label and an icon that will appear in the **New** dialog box and a reference to the template name in the templates.xml file:

```
<listItem label="Corporate Template" icon="cover2.jpg"
value="CorporateTemplate"/>
```

Syntax is important. Do not capitalize Label, and ensure that the value matches what you used in the templates.xml file.

The result appears as follows:

```
<listView id="New" view="Icon" clipLabels="false">
<listItems>
<listItem label="Corporate Template" icon="cover2.jpg"
value="CorporateTemplate"/>
```

6. Save the **Resources.xml** file and close the file tab in **eclipse**.

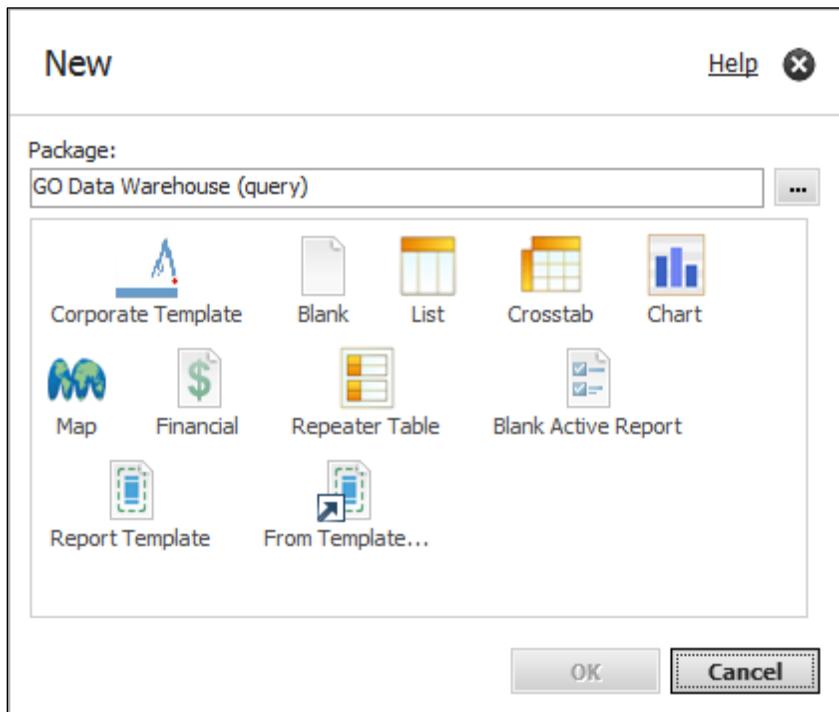
Before Report Studio can display the cover2.jpg icon in the New dialog box, you must copy this icon into the C:\Program Files\IBM\cognos\c10\_64full\webcontent\pat\images directory.

7. In **Windows Explorer**, navigate to **C:\Program Files (x86)\IBM\cognos\c10\webcontent\samples\images**, right-click **cover2.jpg**, and then click **Copy**.
8. Navigate to **C:\Program Files\IBM\cognos\c10\_64\webcontent\pat\images**, right-click in the right pane, and then click **Paste**.
9. Close **Windows Explorer**.  
You need to reopen Report Studio to apply the new template. You should also clear your browser cache before launching Report Studio.
10. In the browser instance for **IBM Cognos software**, on the toolbar, click **Tools**, and then click **Internet options**.
11. Under **Browsing history**, click **Delete**, ensure all check boxes are selected except the **Preserve Favorites and website data** check box, and then click **Delete**.
12. Click **OK**, and then click **X** to close the **Internet Explorer** message.

## Task 6. Open Report Studio and use the new template option.

1. On the **IBM Cognos software** page, click **Author advanced reports**, and then under **Recently used packages**, click **GO Data Warehouse (query)**.
2. On the **IBM Cognos Report Studio** dialog box, click **Create new**.

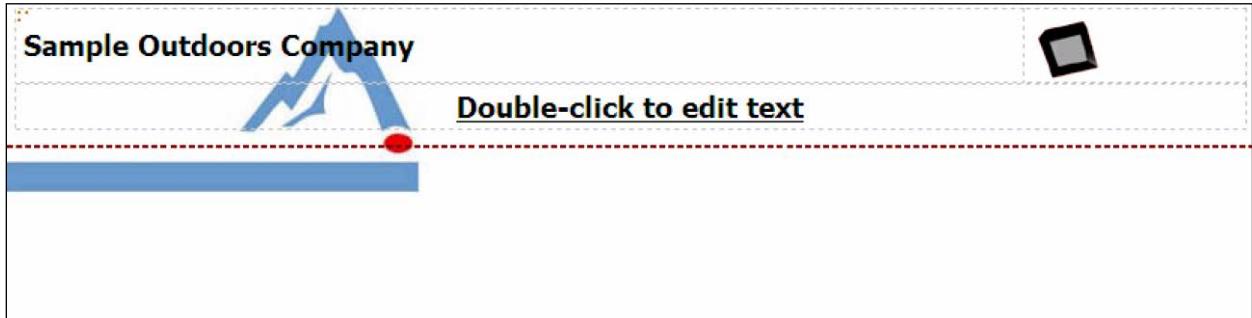
The New dialog box opens displaying the Corporate Template option that you added, as follows:



3. Click **Corporate Template**, and then click **OK**.

The new template opens containing the formatting required for your company reports.

A section of the results appear as follows:



4. Close **Report Studio** without saving, close **eclipse**, log off **Branka Hirsch**, and then close **Internet Explorer**.

**Results:**

You created a template with standard formatting required by management. You then modified the Resources.xml and templates.xml files to add this template as an option in the New dialog box that appears when report authors create new reports in Report Studio.

## Manage Packages

- If you have write privileges on a package, you can modify the default settings that are used for the package.
- You can modify:
  - the number of members in a level that are displayed in the studios
  - the maximum number of members in a level that are visible in the studios when you expand the level
  - the default analysis that is opened when you start Analysis Studio

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In IBM Cognos Connection, you can manage packages the way you manage other entries. For example, you can organize packages in folders, create shortcuts to packages, and move or copy packages.

You can also set permissions on the package, to allow users, groups, or roles to manage the package.

When you open a default analysis in Analysis Studio, a crosstab report is opened. The first dimension in the source tree is assigned to Rows, the second is assigned to Columns, with the first measure is assigned to Measure. If you want a specific analysis to be opened whenever you work with a package in Analysis Studio, you can modify the package configuration and select the analysis to be opened with the package.

For more information about the administering packages, see the *IBM Cognos Business Intelligence Version 10.2.2 Administration and Security Guide*, Chapter 24: Packages.

## Administer Microsoft Office Documents

- Import data from IBM Cognos BI reports into Excel workbooks, PowerPoint presentations, and Word documents using IBM Cognos for Microsoft Office.
- View and edit in Microsoft Office, then publish back to IBM Cognos Connection.
- IBM Cognos for Microsoft Office must be deployed to users' workstations.

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For more information on IBM Cognos for Microsoft Office see the *IBM Cognos Business Intelligence Version 10.2.2 Administration and Security Guide*, Chapter 29. Administering Microsoft Office Documents.

## Demo 4: Configure IBM Cognos for Microsoft Office

### Purpose:

**Users want to use IBM Cognos BI data with their Microsoft Office components. You will configure IBM Cognos for Microsoft Office for use in your Microsoft Office Professional 2010 environment, work with a report in Microsoft Excel, and then publish the report as an Excel workbook to IBM Cognos Connection.**

### Task 1. Add the IBM Cognos 10 BI gateway property to Excel.

1. From the **Start** menu, navigate to **All Programs > Microsoft Office**, and then click **Microsoft Excel 2010**.

Notice that the IBM Cognos tab appears with other tabs. IBM Cognos for Microsoft Office has been installed as part of the course set up.

2. Click the **IBM Cognos** tab, and notice that the **IBM Cognos** button is enabled.



You need to configure the gateway for your IBM Cognos BI products. The gateway needs to be set up on one of the three Microsoft Office components (PowerPoint, Excel, or Word) and is available for use on all three.

3. On the toolbar, click **IBM Cognos**.

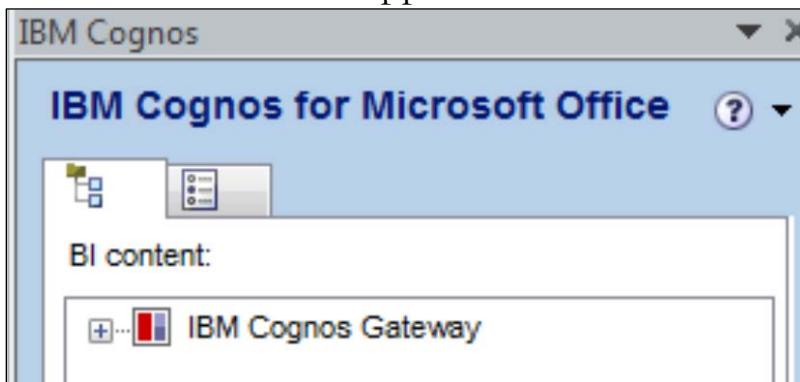
The IBM Cognos Action pane is enabled, and the IBM Cognos pane opens on the right.

4. On the **IBM Cognos** tab toolbar, click **Options** .

5. In the **Options** box, with **IBM Cognos** selected, click **Add**.
6. Ensure that the **Datasource Type** is **IBM Cognos BI**, and then in the **System URL** box, type the following:  
**http://localhost:88/ibmcognos/cgi-bin/cognos.cgi**
7. In the **Friendly name** box, type **IBM Cognos Gateway**, and then click **Test Connection**.
8. Click **OK** to close the connection succeeded message, and then click **Save**.  
The gateway has been added to the IBM Cognos Systems list.
9. Click **OK** to close the **Options** dialog box.

## Task 2. Test IBM Cognos for Microsoft Office.

1. In the right pane, click **IBM Cognos for Microsoft Office**.  
A section of the result appears as follows:



2. Expand **IBM Cognos Gateway**.
3. Log as **admin/Education1**, and then click **OK**.

A section of the result appears as follows:



The contents of IBM Cognos Connection appear in the right pane, and can be used in Excel.

## Task 3. Publish an Excel spreadsheet to IBM Cognos Connection.

1. In the right pane, navigate to **Public Folders > Samples > Models > GO Data Warehouse (analysis) > Query Studio Report Samples**.
2. Right-click **Returns by Product Type**, and then click **Import content**.  
You want to include the contents of the report as a crosstab, but not include any other details about the report.
3. Under **Report pages**, click **Create new worksheets for report pages**, ensure that the **Location** is **\$A\$1**, and then click **Next**.  
The location you choose identifies the top left corner of the report.
4. Click **Finish**.
5. Select cells **F5** to **F148**.
6. On the ribbon, click the **Home** tab, on the toolbar, click **Sort & Filter**, and then click **Sort Smallest to Largest**.
7. In the **Sort Warning** dialog box accept the default **Expand the selection**, and then click **Sort**.  
You can add additional calculations or formatting that you may be interested in, and then publish your Excel report to IBM Cognos Connection.
8. Click the **IBM Cognos** tab, click **Publish** , and then in the **Name** box, type **Returns by Product Type Sorted.xls**.
9. Click **Public Folders**, click **New Folder**, and name the folder **B5A55**.
10. Double-click the **B5A55** folder, and then click **Publish**.
11. Close **Excel** without saving, and then log on to IBM Cognos BI as **admin/Education1**.

12. Click **IBM Cognos content**, and then navigate to **Public Folders > B5A55**.

The screenshot shows the 'IBM Cognos Connection' interface. At the top, there's a navigation bar with tabs for 'Public Folders' (which is selected and highlighted in blue) and 'My Folders'. Below the navigation bar, the path 'Public Folders > B5A55' is displayed. The main area shows a list of reports. The first report in the list is 'Returns by Product Type Sorted.xls', which has a small icon next to it.

The Returns by Product Type Sorted.xls report appears in the list of available reports. You can publish Microsoft Office files to IBM Cognos Connection to share the files with other IBM Cognos BI users.

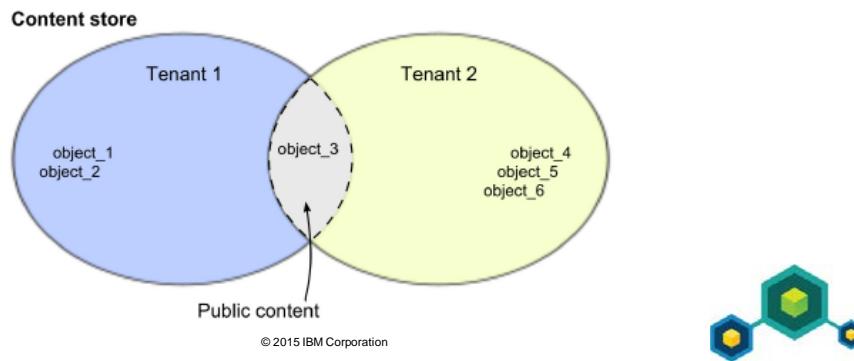
Leave IBM Cognos Connection open.

### Results:

**You configured IBM Cognos for Office for use in your Microsoft Office Professional 2010 environment, worked with a report in Microsoft Excel, and then published the report as an Excel workbook to IBM Cognos Connection.**

## Multitenant Environments

- Multitenancy allows for multiple tenants in a single application.
- Users from each tenant can access only the data they are authorized to use.
- IBM Cognos BI provides built-in multitenancy capabilities.



All Content Manager objects can have a single, optional tenant ID. All Cognos users, including administrators, can have an optional tenant ID. Users cannot access a Content Manager object if they do not have a tenant ID that matches the Content Manager object tenant ID. Content Manager objects that do not have a tenant ID are considered public and can be accessed by any user. Users who do not have a tenant ID can access only public objects.

In the diagram above, tenant users have access to the following objects:

- Tenant 1 users can access object\_1, and object\_2.
- Tenant 2 users can access object\_4, object\_5, and object\_6.
- Tenant 1 and Tenant 2 users can access object\_3.

Members of the System Administrators role can access all objects in the content store.

When accessing objects, object tenancy is evaluated before object access permissions. Therefore, users in a multitenant application see only the objects that are associated with their tenant and objects that are categorized as public.

For more information on Multitenancy see the *IBM Cognos Business Intelligence Version 10.2.2 Administration and Security Guide*, Chapter 27 Multitenant Environments.

# Configure Multitenancy

- To configure multitenancy:
  1. Set multitenancy properties in IBM Cognos Configuration.
  2. Create tenants in IBM Cognos Administration.
  3. Set tenant IDs on objects in IBM Cognos Connection.

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Before you configure multitenancy in IBM Cognos Configuration, you must decide how to map the user account in your authentication provider to the tenant. Map based on a:

- hierarchy node
- user account attribute
- custom tenant provider

Note: you can configure multitenancy globally, at the Authentication level, or for specific namespaces.

The system administrator creates the tenant object in IBM Cognos Administration and assigns a unique tenant ID to the object. The tenant IDs are defined in the authentication provider, such as LDAP, Active Directory, or a custom authentication provider.

After multitenancy is enabled, the system administrator assigns tenant IDs to the existing content store objects. This is done on the General tab in the properties page of the object, in IBM Cognos Connection. Note: The tenant ID assigned to a parent object is inherited by all child objects. The tenant IDs of the child objects cannot be changed. You can set the tenant ID of a child object to any value if the parent tenant ID is public.

## Demo 5: Configure a Multitenant Environment

### Purpose:

You need to familiarize yourself with how to configure a multitenant environment for IBM Cognos BI. To do this, you will perform the following tasks:

- Identify the user account attribute to be used to map the tenant
- Map the user account attribute to the tenant
- Create tenants
- Assign tenant IDs to existing objects
- Verify tenant access

In this demo you will configure multitenancy using a user account attribute from the LDAP authentication provider configured in this environment. You will begin by identifying the attribute in the LDAP provider.

### Task 1. Identify the user account attribute.

Attribute Description	Value
objectClass	inetOrgPerson (structural)
objectClass	organizationalPerson (structural)
objectClass	person (structural)
objectClass	top (abstract)
cn	Admin Person
sn	Person
displayName	Admin Person
givenName	Admin
<b>l</b>	Ottawa
mail	admin@grtd123.com
ou	People
telephoneNumber	1-800-555-5555
uid	admin
userPassword	Plain text password

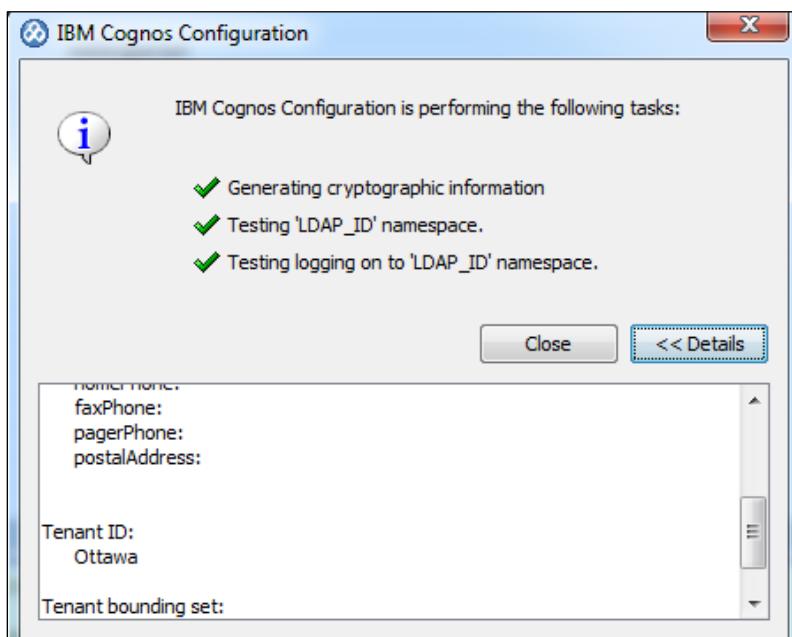
The screen capture above shows the user account properties for the Admin Person user, as they appear in the LDAP authentication provider configured in this environment. The "l" attribute represents a location for the user. You will map this user account attribute to the tenant.

## Task 2. Map the user account attribute to the tenant.

1. Navigate to **Start > All Programs > IBM Cognos 10- 64**, and then click **IBM Cognos Configuration**.
2. In the **Explorer** pane, under **Security > Authentication**, click **LDAP**.
3. In the **LDAP - Namespace - Resource Properties** pane, click in the **Value** column of the **Multitenancy > Tenant ID Mapping** property, and then click **Edit** .
4. In the **Type** list, click **Pattern**, and then in the **Value** box, type **~/parameters/LDAPlocation**.
5. Click **OK**.  
This creates a reference to a LDAP custom property that you will now define.
6. Click in the **Value** column of the **Account Mappings (Advanced) > Custom properties** property, click **Edit**, and then click **Add**.
7. In the **Name** box, type **LDAPlocation**.  
This is the parameter name you used in step 4.
8. In the **Value** column, type **l** (lowercase "L").  
This is the user account attribute you identified in the LDAP authentication provider in Task 1.
9. Click **OK**.
10. In the **Explorer** pane, right-click **LDAP**, and then click **Test**.
11. Enter **admin/Education1** as credentials, and then click **OK**.

12. After the test is successful, click **Details**.

The results appear as follows:



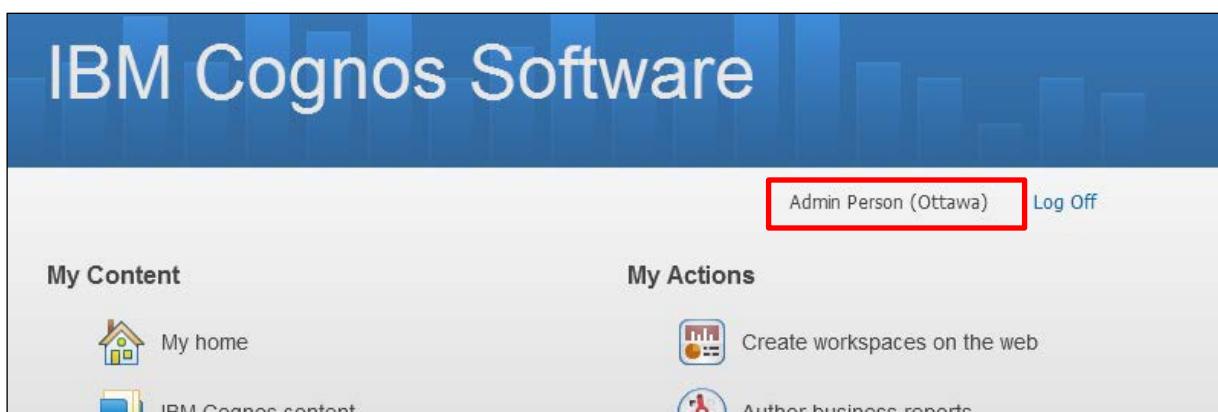
The Admin Person user has been assigned a Tenant ID of Ottawa, based on the value of the location property from their LDAP user account.

13. Click **Close**, save the configuration, and then from the **Actions** menu, click **Restart**.
14. Close **IBM Cognos Configuration**.

## Task 3. Create tenants.

1. In **IBM Cognos Connection**, click log off, and then log on as **admin/Education1**.
2. Click **Administer IBM Cognos content**, click the **Multitenancy** tab, and then on the toolbar, click **New Tenant** .
3. In the **Name** and **Tenant ID** boxes, type **Ottawa**, and then click **Finish**.
4. Repeat step 3 and 4 to create a **Tenant** named **Calgary** with a **Tenant ID** of **Calgary**.
5. Log off, and then log on as **admin/Education1**.

The results appear as follows:



Notice that the Admin Person has logged on to the Ottawa tenant. This user has a tenant id of Ottawa.

## Task 4. Assign tenant IDs to existing objects.

In a multitenant environment, all objects in the content store are either public or belong to a single tenant. As a system administrator, you must ensure that the existing objects have a proper tenant ID or are meant to remain public.

If the tenant content is not organized into separate folders, you can create a root folder in Cognos Connection for each tenant. This helps to preserve the uniqueness of names in the Cognos BI environment. In this environment, two root folders have been created, Calgary and Ottawa, to store the content for each of the tenants.

1. Click **IBM Cognos content**.

The result appears as follows:

Name	Modified	Tenant	Actions
BSASS	March 19, 2015 12:23:36 PM		More...
Calgary	March 18, 2015 12:32:11 PM		More...
Ottawa	March 18, 2015 12:32:21 PM		More...
Samples	April 17, 2013 9:54:00 AM		More...
Samples_Drillthrough	April 9, 2013 3:21:19 PM		More...
Samples_Dynamic_Cubes	March 26, 2013 10:31:05 AM		More...
Samples_PowerCube	May 8, 2013 11:08:32 AM		More...

A new Tenant column appears that will display Tenant information once Tenant IDs are assigned to the content.

2. Click **Calgary**.

This folder contains GO Sales (analysis) and GO Sales (query) packages, and their contents.

3. Click **Public Folders**, and then click **Ottawa**.

This folder contains the GO Data Warehouse (analysis) and GO Data Warehouse (query) packages.

4. Click **Public Folders**, and then beside the **Calgary** folder, under **Actions**, click **Set properties**.

5. On the **General** tab, beside **Tenant**, click **Set**.

6. In the **Tenant** list, click **Calgary**, click **OK**, and then click **OK** to close the **Set properties** window.

7. Repeat steps **4** to **6** to set the **Tenant ID** for the **Ottawa** folder.
- The results appear as follows:

This screenshot shows the IBM Cognos Connection interface with the 'Public Folders' tab selected. The 'My Folders' tab is also visible. The main area displays a list of folders under 'Public Folders'. The 'Actions' column contains 'More...' links for each folder. The 'Tenant' column shows the tenant ID for each folder. The 'Ottawa' folder is clearly visible with a tenant ID of 'Ottawa'.

Name	Modified	Tenant	Actions
B5A55	March 19, 2015 12:23:36 PM		<a href="#">More...</a>
Calgary	March 19, 2015 12:59:08 PM	Calgary	<a href="#">More...</a>
Ottawa	March 19, 2015 12:59:51 PM	Ottawa	<a href="#">More...</a>
Samples	April 17, 2013 9:54:00 AM		<a href="#">More...</a>
Samples_Drillthrough	April 9, 2013 3:21:19 PM		<a href="#">More...</a>
Samples_Dynamic_Cubes	March 26, 2013 10:31:05 AM		<a href="#">More...</a>
Samples_PowerCube	May 8, 2013 11:08:32 AM		<a href="#">More...</a>

Notice that the Tenant ID is listed in the Tenant column.

## Task 5. Verify tenant access.

1. Log off, and then log on as **brettonf/Education1**.
2. Click **IBM Cognos content**.

The results appear as follows:

This screenshot shows the IBM Cognos Connection interface with the 'Public Folders' tab selected. The 'My Folders' tab is also visible. The main area displays a list of folders under 'Public Folders'. The 'Actions' column contains 'More...' links for each folder. The 'Tenant' column is present but appears to be empty or not fully populated, likely due to the user's role. The 'Ottawa' folder is not visible in this view.

Name	Modified	Actions
B5A55	March 19, 2015 12:23:36 PM	<a href="#">More...</a>
Calgary	March 19, 2015 12:59:08 PM	<a href="#">More...</a>
Samples	April 17, 2013 9:54:00 AM	<a href="#">More...</a>
Samples_Drillthrough	April 9, 2013 3:21:19 PM	<a href="#">More...</a>
Samples_Dynamic_Cubes	March 26, 2013 10:31:05 AM	<a href="#">More...</a>
Samples_PowerCube	May 8, 2013 11:08:32 AM	<a href="#">More...</a>

Frank Bretton cannot see the Ottawa folder because it is part of a tenant to which he does not have access. He has access to the Calgary folder because he has a matching tenant ID, and also has access to other folders because they are still public. Notice that tenant information beside the currently logged on user (at the top of the page) and the Tenant column are also not available. To view this information, the currently logged on user must be a member of the System Administrators or Tenant Administrators roles.

3. Log off, and then log on as **hirschb/Education1**.

#### 4. Click IBM Cognos content.

The results appear as follows:

Name	Modified	Actions
B5A55	March 19, 2015 12:23:36 PM	<a href="#">More...</a>
Ottawa	March 19, 2015 12:59:51 PM	<a href="#">More...</a>
Samples	April 17, 2013 9:54:00 AM	<a href="#">More...</a>
Samples_Drillthrough	April 9, 2013 3:21:19 PM	<a href="#">More...</a>
Samples_Dynamic_Cubes	March 26, 2013 10:31:05 AM	<a href="#">More...</a>
Samples_PowerCube	May 8, 2013 11:08:32 AM	<a href="#">More...</a>

As expected, due to the multitenant configuration, Branka Hirsch has access to the Ottawa folder and not the Calgary folder, and has access to the public content.

#### 5. Log off, and then close Internet Explorer.

### Results:

You needed to familiarize yourself with how to configure a multitenant environment for IBM Cognos BI. To do this, you performed the following tasks:

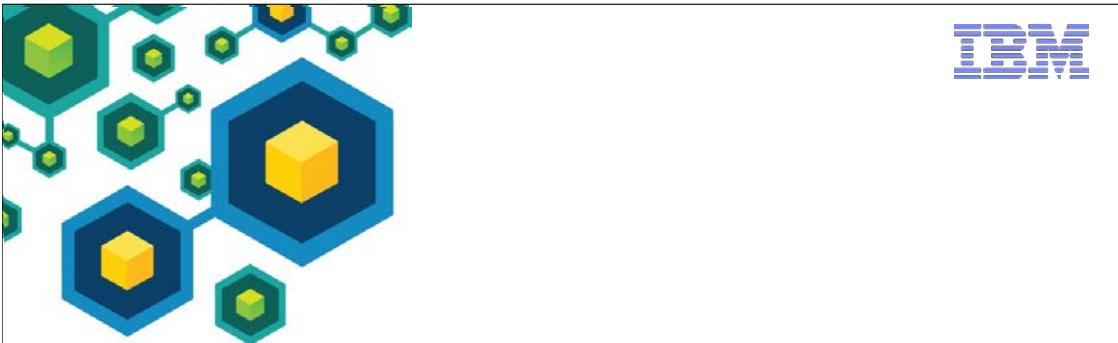
- Identified the user account attribute to be used to map the tenant
- Mapped the user account attribute to the tenant
- Created tenants
- Assigned tenant IDs to existing objects
- Verified tenant access

## Summary

- At the end of this module, you should be able to:
  - manage user profiles
  - identify the Style Management Utility
  - add objects to the Toolbox tab
  - create a custom template option
  - identify how to manage packages through IBM Cognos Connection
  - administer Microsoft Office documents
  - configure a multitenant environment

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# Overview of IBM Cognos BI

IBM Cognos BI 10.2.2

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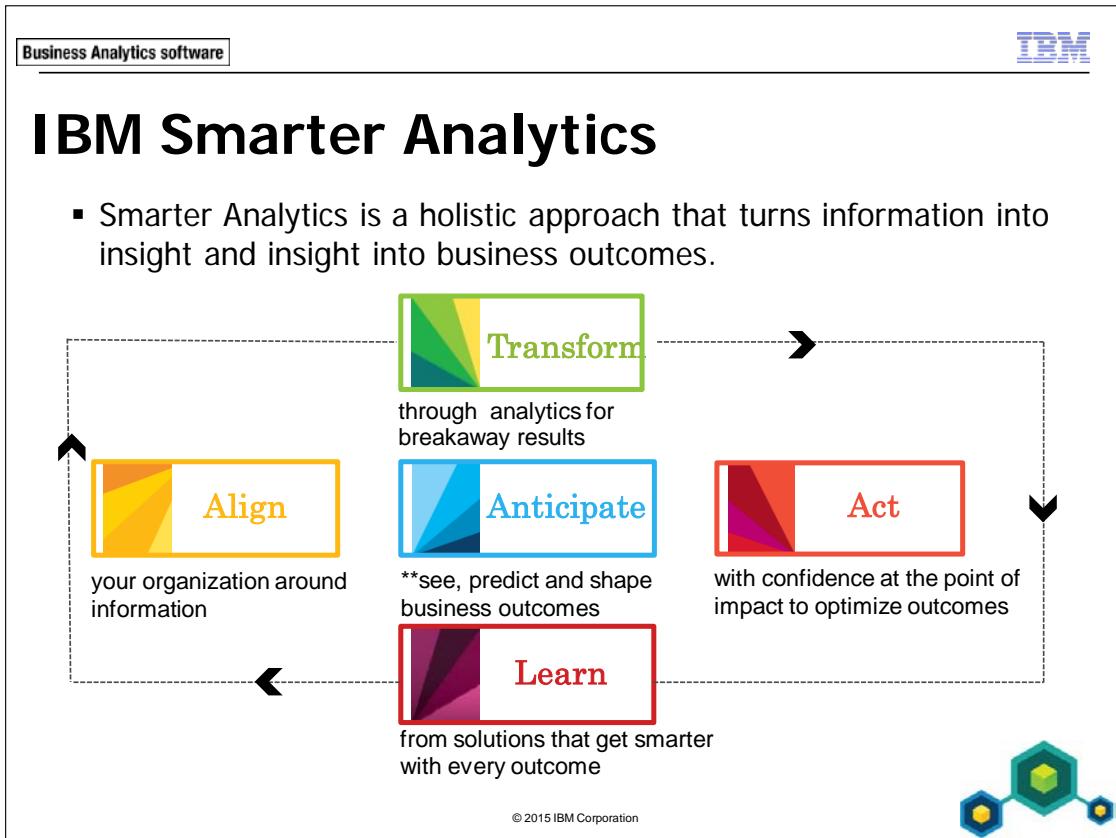




# Objectives

- At the end of this module, you should be able to:
  - describe IBM Cognos Business Intelligence (BI) and its position within the IBM Smarter Analytics approach and offerings
  - describe the IBM Cognos 10 Family of offerings
  - describe IBM Cognos BI enterprise components
  - describe IBM Cognos architecture at a high level
  - describe IBM Cognos BI security at a high level
  - explain how to extend IBM Cognos BI

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Organizations across industries face tough new challenges created by the information age. A hyper-connected, global community of empowered individuals and consumers is generating an unprecedented amount of big data from billions of diverse sources. Amidst these new complexities, successful organizations are using analytics to acquire, grow and retain customers, transform their financial processes, improve operational efficiency and manage and reduce risk and fraud. Analytics has evolved from a business initiative to a business imperative. Organizations are adopting analytics at a fast rate and those leaders are already transforming entire industries.

From a study conducted by IBM Institute of Business Value and MIT Sloan Management Review, the number of enterprises using analytics to create a competitive advantage jumped almost 60 percent in just one year. Nearly 6 out of 10 organizations now differentiate through analytics. The overall increase in advantage went almost exclusively to organizations who were already experienced users of analytics, so the early adopters are extending their leadership, and those organizations are more than twice as likely to substantially outperform their peers.

The implications of this pattern are clear, and a major transformation is underway. This transformation is fundamentally changing how organizations are structured, how daily operations are managed and where new investments are made to create value. It is being powered by the onset of big data, which in turn is being instrumented and analyzed by new computing systems with deep analytic capabilities. Analytics has grown beyond enterprise data to big, largely unstructured data from billions and billions of diverse sources. There are 200 million tweets sent each day, or roughly 12 TB data every second. High-definition video creates 2,000 times as many bytes as a single page of printed text. All told, there are 1.8 trillion gigabytes of information available in today's digital world, a truly remarkable figure that continues to grow at an alarming rate. Yet, it is through the complexities caused by big data that we can start to recognize new patterns that we simply couldn't before: 1) insurance companies are identifying fraud patterns by combing different data sources in real time to analyze massive transactional databases 2) financial institutions that are trading based on trending social content 3) energy companies that are analyzing 350 billion meter readings each year to predict power consumption. With every new challenge created by big data comes an equal opportunity; for those who are truly prepared to leverage it; to significantly improve organizational decision making.



Leverage business analytics to deliver actionable insights.

- Spot and analyze trends and anomalies
- Predict potential threats and opportunities
- Plan, budget, and forecast resources
- Assess and manage risk
- Compare "what-if" scenarios
- Measure and monitor business performance
- Automate decisions
- Align strategic and operational decisions

**Business Intelligence** - capabilities offered by IBM Cognos BI suite of products

**Predictive Analytics** - capabilities offered by IBM SPSS suite of products

**Risk Analytics** - capabilities offered by Open Pages and Algorithmics suite of products

**Financial Performance Management** - capabilities offered by IBM Clarity, IBM Cognos Controller, IBM Cognos Planning, and IBM Cognos TM1

**Content Analytics** - capabilities offered by IBM Cognos Content Analytics

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## IBM Cognos Business Intelligence (BI) Capabilities

- IBM Cognos BI provides a range of analytics capabilities so that everyone has the relevant information needed to drive your business forward.

The diagram illustrates the ten capabilities of IBM Cognos BI, each represented by a distinct icon:

- Reporting:** A bar chart icon.
- Workspaces:** A gauge icon.
- Collaboration:** An icon showing a comment box with "Add Comment" text.
- Analysis:** A 3D scatter plot icon.
- Mobile:** Icons for a smartphone and a tablet.
- Planning and Budgets:** A grid-based budgeting or planning interface icon.
- Scorecards:** A table icon with columns labeled "Actual Data", "Actual QC", and "Actual Util".
- Statistics:** A scatter plot icon.
- Real-time monitoring:** Three interconnected hexagonal nodes in yellow, green, and blue.

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With IBM Cognos BI, users can:

- explore information freely, analyze key facts, collaborate to gain alignment with key stakeholders and make decisions for better business outcomes.
- access reports, analysis, dashboards, scorecards, planning and budgets, real-time information, statistics and manage information for more informed decisions.
- integrate the results of "what-if" analysis modeling and predictive analytics into a unified workspace to view possible future outcomes alongside current and historical data.
- work with business intelligence capabilities for the office and desktop, on mobile devices, online and offline.
- work within a highly scalable and extensible solution that can adapt to the changing needs of IT and the business with flexible deployment options that include the cloud, mainframes and data warehousing appliances.

## IBM Cognos 10 Family

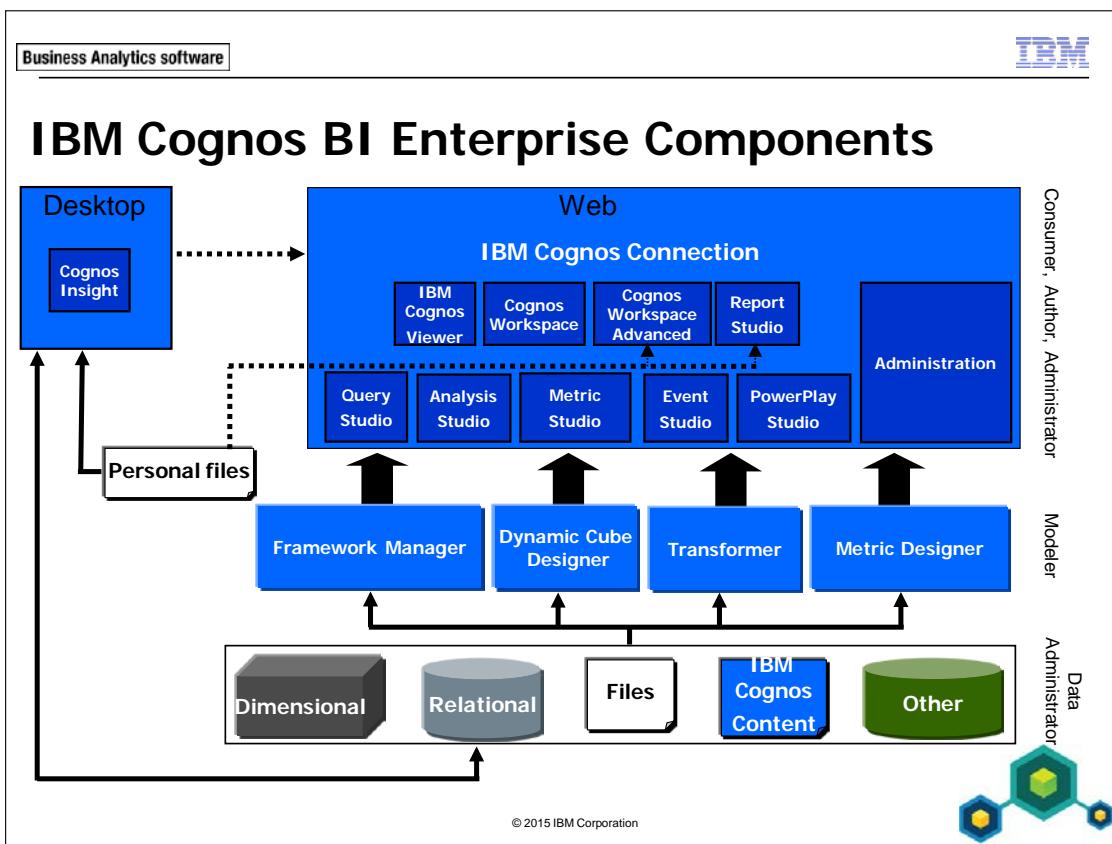
- Cognos Insight - Individuals who require personal, desktop analytics
- Cognos Express - Departments, business units or midsize organizations with workgroups who require integrated reporting, analysis and planning
- Cognos Enterprise - Enterprises that require broad analytics capabilities deployed to hundreds or thousands of people

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The IBM Cognos 10 family of products is right-sized for your organization and integrated together, and offer solutions that meet your current and future needs, whether you want to deploy on a desktop, a single server, a server farm or all three. You can also start small and grow your solution over time. For example:

- Start small, using Cognos Insight for data discovery and planning. Add a server to share that insight and create additional reports from larger data sets with Cognos Express. Or combine that insight with real-time and corporate information and place insights on scorecards and interact on mobile devices with Cognos Enterprise.



IBM Cognos BI capabilities provide reporting, analysis, scorecarding, workspace creation, business event management, and data integration from a wide array of corporate and personal data sources. IBM Cognos BI includes:

- IBM Cognos Connection, which is the Web a portal for BI content presentation, management, and administration.
- Web and desktop reporting and analysis tools to author and analyze corporate data.
- Metadata modeling tools, including Framework Manager, Dynamic Cube Designer, and Transformer.

Use IBM Cognos Viewer to view reports.

Use IBM Cognos Workspace to create personal workspaces.

Use IBM Cognos Workspace Advanced to perform self-service reporting and analyses of data, including external data files.

Use IBM Cognos Insight to perform personal analysis in a desktop environment.

Use Query Studio to perform ad hoc querying and quickly answer a focused question.

Use Analysis Studio to perform analyses of data to discover trends, risks, and opportunities.

Use Report Studio to build sophisticated reports, against multiple data sources, including external data files.

Use Event Studio to create agents which notify users of key operational or performance-related events in their business.

Use PowerPlay Studio to perform multidimensional analysis using IBM Cognos PowerCubes.

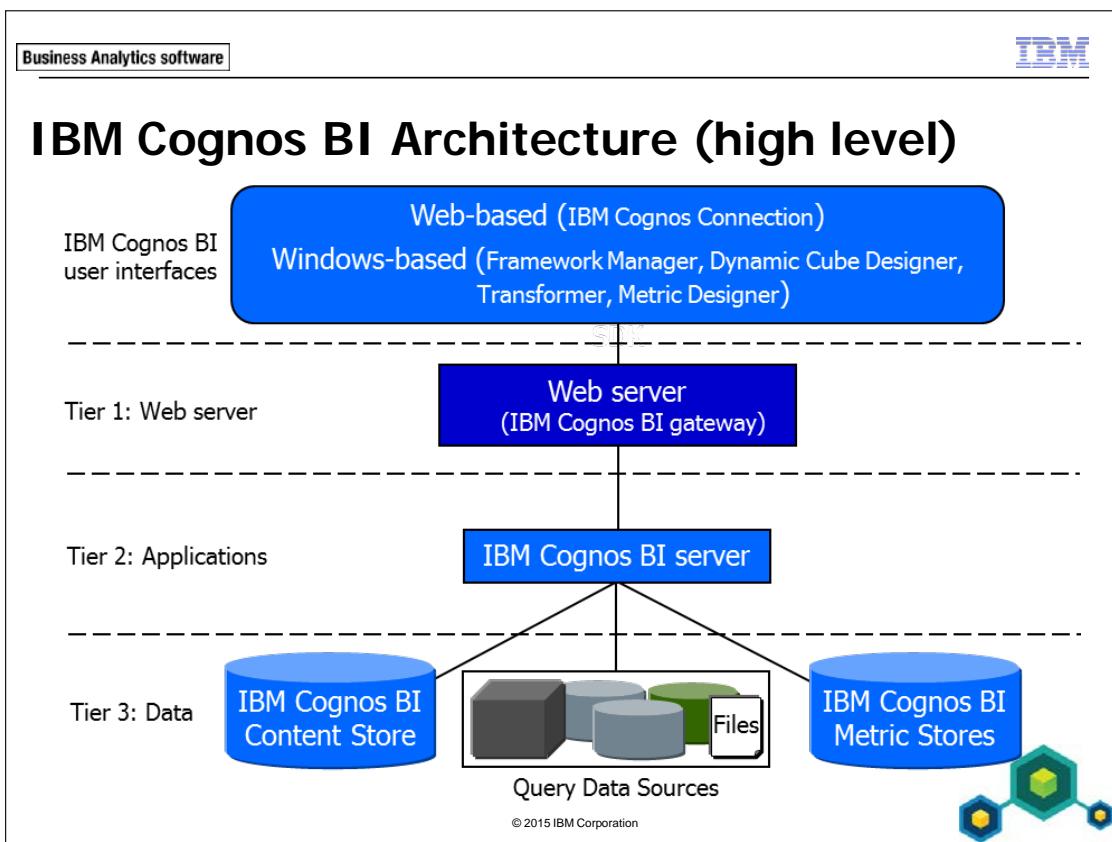
Use Metric Studio to manage performance by monitoring and analyzing metrics.

Use Framework Manager to create basic query packages, relationally based packages, and dimensional analysis packages.

Use Dynamic Cube Designer to create, edit, import, export, and deploy virtual cube models over a relational warehouse schema.

Use Transformer to create PowerCubes for dimensional analysis.

Use Metric Designer to create scorecard applications for use in Metric Studio.



IBM Cognos BI is a Web-based architecture, which is separated into three tiers; Web server, applications, and data.

This architecture is scalable from a software and hardware perspective. For example, you can have several IBM Cognos servers for faster response times and load balancing.

IBM Cognos leverages existing corporate IT resources such as web servers, authentication providers, and application servers, and also supports multiple languages and locales in order to serve a global audience.

IBM Cognos is customizable to adopt your corporate look and feel and can be extended and integrated into other applications through the IBM Cognos SDK.

## IBM Cognos BI Security

- The IBM Cognos BI security model combines existing enterprise security solutions with IBM Cognos BI security to achieve:
  - Authentication - Who are you?
  - Authorization - What can you see/do?
  - Administration - What/where can you manage?

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IBM Cognos BI authentication is based on the use of third party authentication providers. These define users, groups, and roles used for authentication. User names, IDs, passwords, regional settings, and personal preferences are some examples of information stored in the providers.

Authorization is the process of granting or denying access to content, and specifying the actions that can be performed on that content, based on a user identity.

Authorization assigns permissions to users, groups, and roles that allow them to perform actions, such as read or write, on objects, such as folders and reports.

Permissions can be granted to users, groups, or roles directly from authentication providers or through membership in Cognos namespace groups and roles.

The Cognos namespace is the built-in namespace from IBM Cognos BI. It contains the IBM Cognos objects, such as groups, roles, data sources, distribution lists, and contacts. During the content store initialization, built-in and predefined security entries are created in this namespace, and include default access to functionality.

You can configure and administer IBM Cognos BI security using IBM Cognos Configuration and IBM Cognos Administration.

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## IBM Cognos BI Groups and Roles

- IBM Cognos BI provides default groups and roles for security such as:

System Administrators

Authors

Query Users      Analysis Users

Consumers

Readers

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Take advantage of IBM Cognos BI groups and roles from the Cognos namespace to secure your IBM Cognos environment and content. The group or role to which a user belongs determines how much access the user has to the IBM Cognos environment and functionality. For example, if you are a member of only the Consumers role, you cannot access any of the IBM Cognos studios.

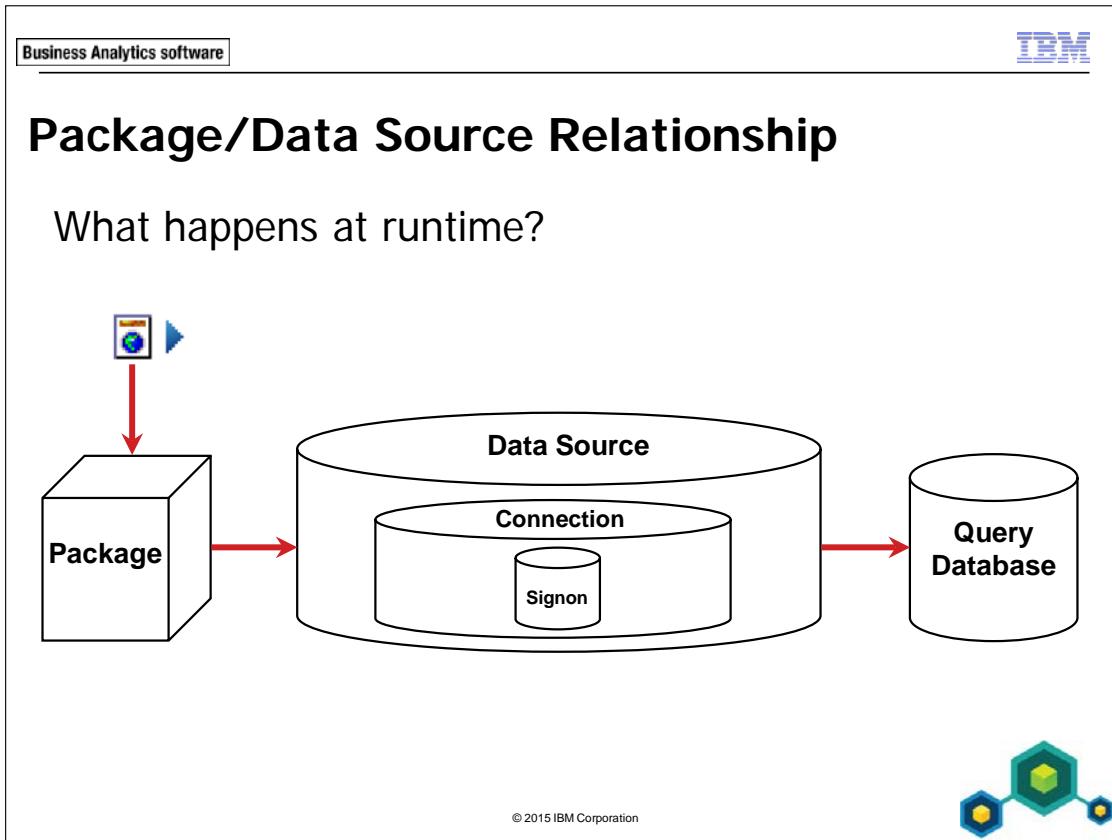
Besides the default groups and roles, you can create new groups and roles that are specific to your IBM Cognos needs. Simply add users from your authentication source to specific groups and roles as required.

Not only can you use the groups and roles defined in the IBM Cognos namespace to control access to contents, you can use groups in your authentication provider as well.

Using the IBM Cognos namespace does not require the IT department and creates a more portable environment.

There are many different groups and roles the administrator can use to restrict what you can see, what you can do, etc.

See the Predefined Entries section of the Administration and Security Guide for detailed information on the predefined groups and roles as well as the anonymous user.



When a user runs a report, interactively or in the background, the metadata and data in the report are accessed through a combination of the package from which the report was authored, and the data source from which the package was modeled. The data source includes a connection string to the database and may include a signon that allows access to the database. The data source is used to query the database and retrieve the appropriate data, and the result set is presented back to the user.

There may be multiple connections for a given data source and multiple signons for a given connection.

Reports run in the background have saved output. The output is a snapshot of the data at the time the report is run and which is saved in the content store. Note: users have the option to save the report output after running the report interactively. When viewing saved output, there is no querying of the database. Users view the data and metadata from the output version that is saved in the content store.

Each object (report, package, data source, connection, and signon) may have security applied.

## Demo 1: Explore IBM Cognos BI

To complete the demos in this module, you should be using the B5A55\_1567ABCD image.

Before doing this demo, in the BI environment, in the **Taskbar**, click **Services** to ensure that the following services are started:

- Apache Directory Server - default
- DB2-DB2COPY1 - DB2
- DB2DAS - DB2DAS00
- World Wide Web Publishing Service
- IBM Cognos

### Purpose:

You will obtain a high-level view of how the IBM Cognos BI system works by navigating through the system and tracing the lifecycle of a data item, from its appearance in a report to its existence in an underlying data source. You will take on different IBM Cognos BI roles including a(n):

- Consumer who runs reports or performs analysis to answer business questions
  - Author who creates reports using various data items from a metadata package
  - Data Modeler who imports data from the underlying data source, models it, and publishes a metadata package to make it available for Authors
  - Administrator who creates and manages data source connections
- You will conclude by identifying how the data item from the report appears as a column in the underlying data source.

## Task 1. Run a report from IBM Cognos Connection.

1. Open **Internet Explorer**, and then navigate to <http://localhost:88/ibmcognos>.
2. Log on as **bauer1/Education1**.

The Welcome to IBM Cognos software page appears. Security is currently set in this environment and you have logged on as a member of the Consumers role. As can be seen in the user interface, this role has limited access to functionality within the environment, but at this point you are only interested in running a report to answer your business question. As a Consumer, you have the ability to navigate to and run reports. To do this you will view report content in IBM Cognos Connection.

3. Click **IBM Cognos content**.

You are now in IBM Cognos Connection. This is the portal page for accessing and managing IBM Cognos BI content, including reports, analyses, additional portal pages, and metadata packages for authoring reports. Note: members of the Consumers role can only view packages and cannot use them to author reports. You will see packages as you navigate through the folder hierarchy.

In IBM Cognos Connection, you will find public content, found on the Public Folders tab, or personal content, found on the My Folders tab. You also have the ability to create more personal tabs to suit your needs or to share with others.

Now you want to view and run the report that will answer your business questions.

4. Navigate to **Samples > Models > GO Data Warehouse (query) > Report Studio Report Samples**, and then click the **Total Revenue by Country** report.

Note: GO Data Warehouse is a package as indicated by the package icon which is different from a folder icon.

The report opens in IBM Cognos Viewer.



Before the full report can run, a prompt page appears asking you to provide some contextual information. In this case, you are prompted to select one or more countries for which you want to see revenue data. At runtime, after the Total Revenue by Country link is clicked, the report begins to run and the underlying data source is queried for data. In this case, the query returns data that populates the prompt.

5. Click **Select all**, and then click **Finish**.

The full report runs and opens in IBM Cognos Viewer.

A section of the results appear as follows:

 <b>Total Revenue by Country</b> For Product Line						
<b>Revenue</b>		<b>Camping Equipment</b>	<b>Golf Equipment</b>	<b>Mountaineering Equipment</b>	<b>Outdoor Protection</b>	
Americas	Brazil	Ao ar livre	2,554,044.39		2,171,110.26	56,302.39
		Ar fresco	2,551,975.28		3,882,366.19	180,270.92
		Armazém do esporte	1,145,731.4	1,485,312.43		108,891.35
		Casa do Alpinista	1,961,779.8	1,617,961.38		6,813.54
		Esportes Grumari	12,908,332.31	11,256,888.81		665,820.03
		Esportópolis	7,365,113.06	719,281.09		371,442.79
		Galáxia do esporte	2,476,455.78	495,727.77		59,362.27
		Lojas do Esportista	2,788,570.61	1,079,903.72		30,643.97
		Mega Shop do Esporte	273,381.27			8,127

The report contains a second query which returns data that has been filtered, based on information supplied in the prompt.

The report is a crosstab report with rows and columns on the edges and intersecting values in the cells. It also contains:

- a title
  - an image that is the company logo
  - various report items, such as Revenue, Product lines, Region, Country, Retailer name
  - variables that display the report execution time and page numbering (at the bottom of the page)
  - multiple pages
6. Scroll through the report.
- As a consumer, you can answer business questions, including:
- What is the total revenue per product line in each country?
  - What is the total revenue per product line for each retailer?
- Take note of the Revenue data item, the values of which populate intersecting cells of the report. This is the item you will trace back to its source. You will assume the role of an author and examine how the report was designed, and how the Revenue data item was used.
7. Click **Bottom**, and then scroll to the end of the report.
- This report also includes a chart to provide a visual representation of the data.
8. On the toolbar, click **Return** , and then click **Log Off**.

## Task 2. Examine a report in Report Studio.

1. Log on as **brettonf/Education1**.

In the current security environment, Frank Bretton is a member of the Author's role, which by default, provides access to the various reporting and analysis studios within IBM Cognos BI.

2. Click **IBM Cognos content**, and then navigate to **Samples > Models > GO Data Warehouse (query) > Report Studio Report Samples**.

3. Beside the **Total Revenue by Country** report, under **Actions**, click **Open with Report Studio - Total Revenue by Country** .

The report opens in design mode in Report Studio, as indicated by the metadata values instead of actual values appearing in the report. Take note of the formatting of the various textual items, including font size and weight. All of these properties can be edited in Report Studio.

4. To the left of the chart, click the **Work area**, and then from the **Explorer** bar (in the middle), click **Page Structure** .

The report includes a hierarchical object structure, beginning with a Page object, which includes Page Header, Page Body, and Page Footer objects. The Page Body hierarchy includes, Block objects, which in turn includes Table objects, which in turn includes Table Row objects, etc.

5. From the **Explorer** bar, click **Page Design** .
6. At the bottom of the report, double-click `<%AsOfDate()%>`.  
The Report Expression dialog box opens showing the AsOfDate() expression. AsOfDate() is an embedded report function within the Report Studio expression editor, which can be used to return and display the execution date for the report.
7. Click **Cancel**, and then repeat step 6 for `<%PageNumber()%>` and `<%AsOfTime()%>`.  
`PageNumber()` returns the current page number.  
`AsOfTime()` returns the report execution time.
8. In the crosstab report object, double-click the **Revenue** item.  
The objects used to define this expression come from the GO Data Warehouse (query) package, as shown in the Available Components pane on the left. You can see objects from the package by navigating the hierarchy.
9. In the **Available Components** pane, expand **Sales and Marketing (query) > Sales (query) > Sales fact** to locate the **Revenue** object.  
The hierarchy you have navigated matches what is displayed in the Expression Definition pane. Note that the Sales and Marketing (query) object is a folder and is excluded from the expression. You will become familiar with this object hierarchy when you create a report in Task 3.

10. Click **Cancel**, and then repeat steps **9** and **10** to identify the expressions and objects used to define them for the following items in the report:

<#Region#>  
 <#Retailer country#>  
 <#Retailer name (multiscript)#>  
 <#Product line#>  
 <#Total (Product line)#>  
 <#Total (Retailer country)#>

Next you will create a report using metadata objects from a package.

### Task 3. Create a report in Report Studio.

1. From the **File** menu, click **New**, and then click **No** to saving the report.
2. Click **List**, and then click **OK**.

You are using the List template for creating this report. The template includes the List report object (column headers and columns), Text Item object for the title, and report expressions (at the bottom) for date and time the report is run and page number.

The package that is currently open in Report Studio will, by default, remain open for the creation of the report.

Note: To open Report Studio with a different package, you do not have to navigate back to IBM Cognos Connection. Instead, right-click in the Source pane, click Report Package, and then navigate to and open the appropriate package.

The Source pane on the left displays the contents of the GO Data Warehouse (query) package. This package has been published from IBM Cognos Framework Manager as a metadata source for report authors to create reports.

Note: This package is also available to other studios to create reports, including IBM Cognos Workspace Advanced, Query Studio, Analysis Studio, and Event Studio.

The structure and organization has been defined in the IBM Cognos Framework Manager model. There are four folders in this package. Note that this is the same structure that was seen in Task 2, step 9 when you were examining the Revenue item in the Report Expression dialog box.

3. Expand the **Sales and Marketing (query)** folder.

At this level you are viewing namespaces. A namespace provides containment and name qualification for child objects.

4. Expand the **Sales (query)** namespace.

At this level you are viewing query subjects. A query subject is a set of query items that have an inherent relationship. In most cases, query subjects behave like tables. Query subjects produce the same set of rows regardless of which columns were queried.

5. Expand the **Sales fact** query subject.

At this level you are viewing query items. A query item represents a single characteristic of something, such as the date that a product was introduced.

Query items are contained in query subjects or dimensions (if using a dimensional data source). For example, a query subject that references an entire table contains query items that represent each column in the table.

6. Drag **Product line** (from **Products**), **Product type** (from **Products**), and **Revenue** (from **Sales Fact**) query items to the work area.

The results appear as follows:

Product line	Product type	Revenue
<Product line>	<Product type>	<Revenue>
<Product line>	<Product type>	<Revenue>
<Product line>	<Product type>	<Revenue>

7. On the toolbar, click **Run Report** .

The report opens in IBM Cognos Viewer and displays revenue values for all product types from each product line. Next you will examine the SQL that is generated and sent to the data source when the report is run.

8. Close **IBM Cognos Viewer**, and then from the **Tools** menu, click **Show Generated SQL/MDX**.

In Report Studio, you have the option to view either the Native SQL that is sent to and interpreted by the data source or the IBM Cognos SQL that is generated by the IBM Cognos query engine. For the purposes of tracing data access back through the IBM Cognos BI system, you will view the IBM Cognos SQL.

9. In the **Generated SQL/MDX** list, click **IBM Cognos SQL**.

The results appear as follows:

```

Generated SQL

Query results:
  ▾ Query1
    Query1.0

Generated SQL/MDX:
IBM Cognos SQL
select
  Product.Product_line as Product_line,
  Product.Product_type as Product_type,
  XSUM(SLS_SALES_FACT.SALE_TOTAL) for
Product.Product_line,Product.Product_type ) as Revenue
from
  (select
    SLS_PRODUCT_LINE_LOOKUP.PRODUCT_LINE_EN as
Product_line,
    SLS_PRODUCT_TYPE_LOOKUP.PRODUCT_TYPE_EN as
Product_type,
    SLS_PRODUCT_DIM.PRODUCT_KEY as Product_key
  from
    great_outdoors_warehouse..GOSALES DW.SLS_PRODUCT_DIM
    SLS_PRODUCT_DIM,
    great_outdoors_warehouse..GOSALES DW.SLS_PRODUCT_LINE_LOOK
UP SLS_PRODUCT_TYPE_LOOKUP
  
```

For the purposes of tracing data access back through the IBM Cognos BI system, you will not examine the SQL in detail, other than to note the following items:

SLS.SALES\_FACT.SALE\_TOTAL, as Revenue - Revenue is actually a query item called SALE\_TOTAL which comes from a query subject named SLS\_SALES\_FACT. Revenue was renamed from SALE\_TOTAL as part of the modeling process in IBM Cognos Framework Manager.

great\_outdoors\_warehouse.GOSALES DW - at runtime data access is achieved through a data source connection called great\_outdoors\_warehouse and a schema called GOSALES DW.

10. Click **Close**, and then close **Report Studio** without saving the report.

Next you will take on the role of a modeler/developer to identify how the objects from the package, including the Revenue query item, are made available to authors to create their reports.

## Task 4. Examine a model in IBM Cognos Framework Manager.

1. From the **Start** menu, click **All Programs > IBM Cognos 10 > IBM Cognos Framework Manager**.
2. Click **Open a project**, and then open **great\_outdoors\_warehouse.cpf** from **C:\Program Files(x86)\IBM\cognos\c10\webcontent\samples\models\great\_outdoors\_warehouse**.
3. Log on as **admin/Education1**.

In the current security environment, Admin Person is a member of the System Administrators role, and by default, has access to the entire IBM Cognos BI system, including IBM Cognos Framework Manager.

You will examine what was published from IBM Cognos Framework Manager.

4. In the **Project Viewer** pane, expand **Packages**.

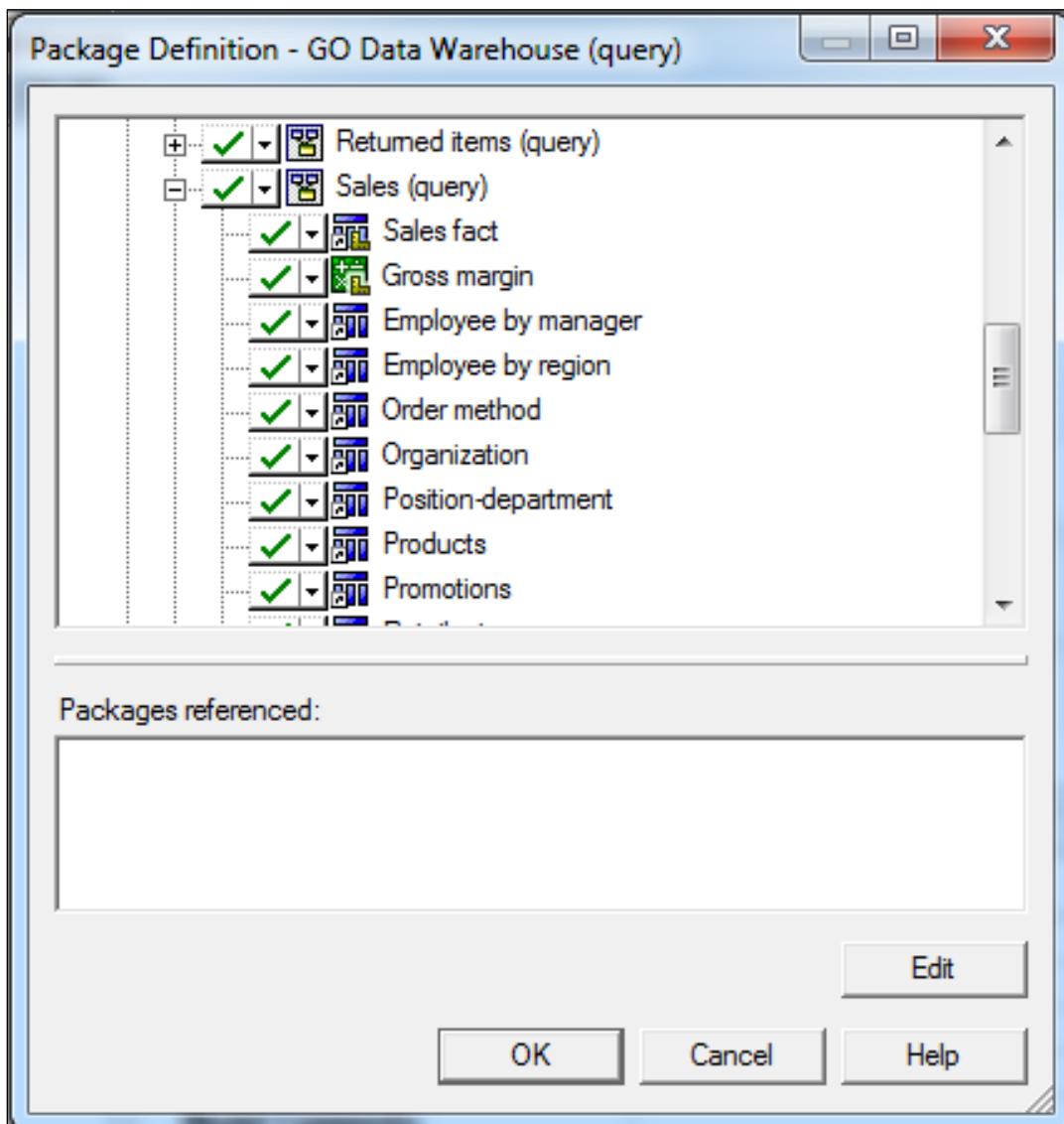
The GO Data Warehouse (query) package appears. This is the package that you used in Report Studio to author the report.

5. Double-click the **GO Data Warehouse (query)** package.

The Package Definition window displays which objects have been included and excluded from the package. The included objects are set to either visible or hidden. Hidden meaning they are included for publishing but will be hidden for report authors.

Note the four folders that have been included and set to visible. These match the folders you identified when you were viewing the package in Report Studio (Task 3, steps 1 to4).

6. Expand the **Sales and Marketing (query)** folder > **Sales (query)** namespace.  
The results appear as follows:



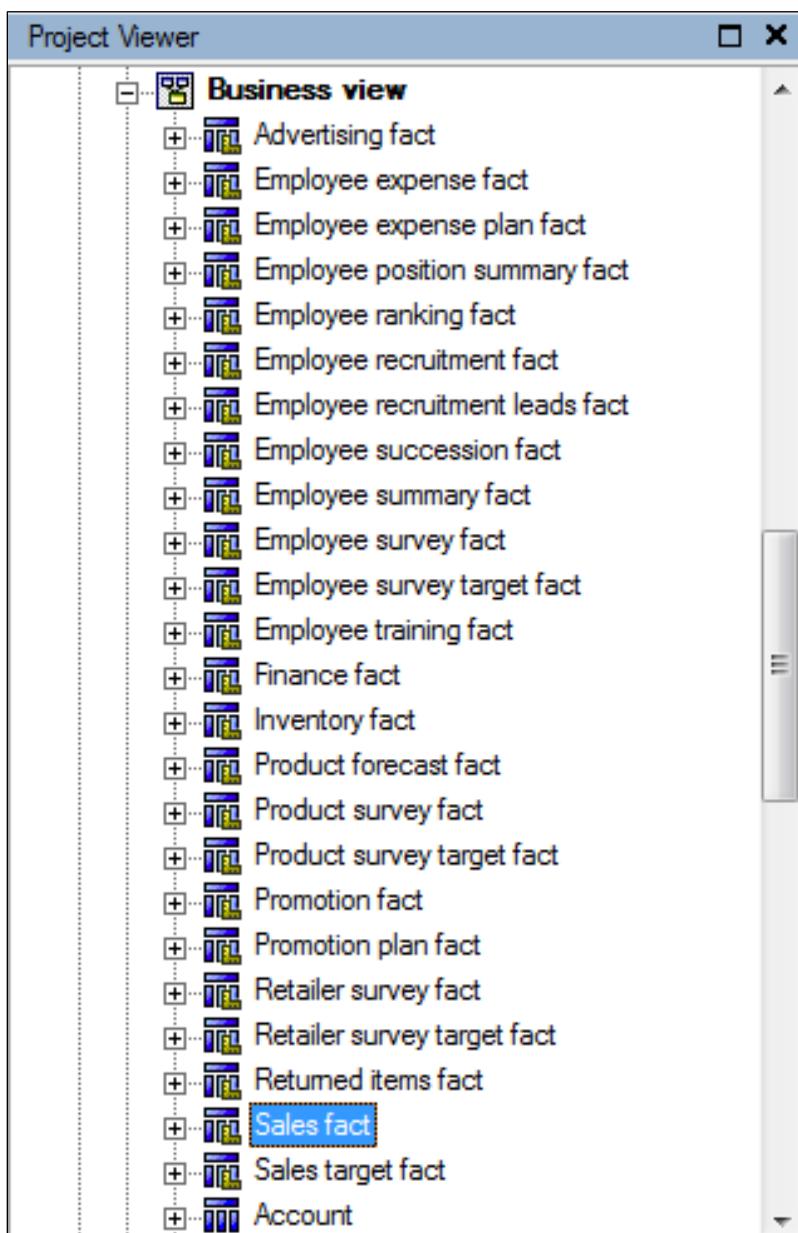
The Sales (query) namespace contains shortcuts to other objects in the model. The Sales fact shortcut points to a source object that is also included in the package; however, you cannot trace the source using this window. To do this, you will examine the model.

7. Click **Cancel**, and then in the **Project Viewer**, expand the **go\_data\_warehouse** namespace > **Sales and Marketing (query)** folder > **Sales (query)** namespace.

Again, you can see the Sales fact shortcut, but now you can trace that shortcut back to its source.

8. Right-click **Sales fact**, and then click **Go To Target**.

A section of the results appear as follows:



You are taken inside the Business View namespace (bolded text), to the Sales fact query subject (blue background).

## 9. Expand **Sales fact**.

This query subject includes the Revenue query item.

Without going in to detail on the structure of this model, you should note that, as a proven practice, this sample model has been organized to include multiple namespaces. The Database View namespace is used to contain query subjects and query items that have been imported directly from the data source. The Business View namespace is used to contain query subjects and query items on which various modeling tasks have been performed, such as:

- combining query items from multiple query subjects
- creating calculated query items
- creating model filters and query item filters
- modifying and creating relationships between query subjects
- setting of various query subject and query item, properties

Objects that will be made available to report authors are typically kept outside of these namespaces, for example the Sales and Marketing (query) folder.

The Sales and Marketing (query folder) contains only shortcuts to objects elsewhere in the model. Some of those objects, contained elsewhere in the model, have been included in the package. In the Package Definition, you noted that some objects were made hidden, including the Business View namespace. In Report Studio, when the author creates the report and uses the Revenue item, they are using a shortcut to a hidden object in the package. In this case, it is the Revenue query item, from the Sales fact query subject, in the Business View namespace.

You will now identify the source for the Revenue query item from the Sales fact query subject.

10. Double-click the **Sales fact** query subject.

This is a model query subject. Model query subjects can be used to create a more abstract, business-oriented view of a data source. For example, you can add business objects such as calculations and filters and combine query items from other query subjects, including other model query subjects.

The Query Items and calculations pane displays the query items and their source that make up this model query subject, including the Revenue query item. Also note that there are two calculated items: Product cost, and Planned revenue. For Revenue, there are two items to note:

- The source is SLS\_SALES\_FACT.SALE\_TOTAL.
- The name is Revenue, indicating that the item was renamed from SALE\_TOTAL

From this, you can conclude that Revenue is sourced from SALE\_TOTAL. To locate this object, you can search for it in the model.

11. Click **Cancel**, and then in the **Tools** pane on the right, click the **Search** tab.
12. Search for **SALE\_TOTAL** using the **go\_data\_warehouse** model as the scope.

Tip: Use the Search options  button to define your search.

13. Click the first instance that contains **SALE\_TOTAL**.

Objects in the Project Viewer pane expand, and you can see the SALE\_TOTAL query item is located at go\_data\_warehouse > Database view > Sales and marketing data > SLS\_SALES\_FACT.

14. Double-click **SLS\_SALES\_FACT**.

This is a data source query subject. Data source query subjects directly reference data in a single data source. IBM Cognos Framework Manager automatically creates a relational data source query subject for each table and view that you import into your model. It includes an SQL statement that will, at runtime, retrieve all the columns from the table. You will test this behavior and in turn locate the SALE\_TOTAL column and its values.

15. Click the **Test** tab, click **Test Sample**, and then in the **Test results** window, scroll to the right to locate **SALE\_TOTAL**.

SALE\_TOTAL is returned as a column

16. Click the **Query Information** tab.

The results appear as follows:

The screenshot shows the 'Query Subject Definition - SLS\_SALES\_FACT' dialog box. The 'Query Information' tab is selected. The 'Query' tab contains Cognos SQL code:

```

select
    SLS_SALES_FACT.SALES_ORDER_KEY as SALES_ORDER_KEY,
    SLS_SALES_FACT.ORDER_DAY_KEY as ORDER_DAY_KEY,
    SLS_SALES_FACT.EMPLOYEE_KEY as EMPLOYEE_KEY,
    SLS_SALES_FACT.ORGANIZATION_KEY as ORGANIZATION_KEY,
    SLS_SALES_FACT.RETAILER_SITE_KEY as RETAILER_SITE_KEY,
    SLS_SALES_FACT.PRODUCT_KEY as PRODUCT_KEY,
    SLS_SALES_FACT.PROMOTION_KEY as PROMOTION_KEY,
    SLS_SALES_FACT.ORDER_METHOD_KEY as ORDER_METHOD_KEY,
    SLS_SALES_FACT.RETAILER_KEY as RETAILER_KEY,
    SLS_SALES_FACT.SHIP_DAY_KEY as SHIP_DAY_KEY,
    SLS_SALES_FACT.CLOSE_DAY_KEY as CLOSE_DAY_KEY,
    SLS_SALES_FACT.QUANTITY as QUANTITY,
    SLS_SALES_FACT.UNIT_COST as UNIT_COST,
    SLS_SALES_FACT.UNIT_PRICE as UNIT_PRICE,
    SLS_SALES_FACT.UNIT_SALE_PRICE as UNIT_SALE_PRICE,
    SLS_SALES_FACT.GROSS_MARGIN as GROSS_MARGIN,
    SLS_SALES_FACT.SALE_TOTAL as SALE_TOTAL,
    SLS_SALES_FACT.GROSS_PROFIT as GROSS_PROFIT
from
    great_outdoors_warehouse..GOSALEDW.SLS_SALES_FACT SLS_SALES_FACT

```

The 'Native SQL' tab contains Native SQL code:

```

select "SLS_SALES_FACT"."SALES_ORDER_KEY" "SALES_ORDER_KEY", "SLS_SALES_FACT"."ORDER_DAY_KEY"
"ORDER_DAY_KEY", "SLS_SALES_FACT"."EMPLOYEE_KEY" "EMPLOYEE_KEY", "SLS_SALES_FACT"."ORGANIZATION_KEY"
"ORGANIZATION_KEY", "SLS_SALES_FACT"."RETAILER_SITE_KEY" "RETAILER_SITE_KEY",
"SLS_SALES_FACT"."PRODUCT_KEY" "PRODUCT_KEY", "SLS_SALES_FACT"."PROMOTION_KEY" "PROMOTION_KEY",
"SLS_SALES_FACT"."ORDER_METHOD_KEY" "ORDER_METHOD_KEY", "SLS_SALES_FACT"."RETAILER_KEY" "RETAILER_KEY",
"SLS_SALES_FACT"."SHIP_DAY_KEY" "SHIP_DAY_KEY", "SLS_SALES_FACT"."CLOSE_DAY_KEY" "CLOSE_DAY_KEY",
"SLS_SALES_FACT"."QUANTITY" "QUANTITY", "SLS_SALES_FACT"."UNIT_COST" "UNIT_COST",
"SLS_SALES_FACT"."UNIT_PRICE" "UNIT_PRICE", "SLS_SALES_FACT"."UNIT_SALE_PRICE" "UNIT_SALE_PRICE",
"SLS_SALES_FACT"."GROSS_MARGIN" "GROSS_MARGIN", "SLS_SALES_FACT"."SALE_TOTAL" "SALE_TOTAL",
"SLS_SALES_FACT"."GROSS_PROFIT" "GROSS_PROFIT" from "GOSALEDW"."SLS_SALES_FACT" "SLS_SALES_FACT" FOR FETCH
ONLY

```

As with the Generated SQL/MDX window in Report Studio, this window also displays the SQL that is sent to the data source (Native SQL) and the SQL generated by the IBM Cognos query engine (Cognos SQL). In the Cognos SQL, you can see that the select statement includes all columns from the SLS\_SALES\_FACT table, including the SALE\_TOTAL column. You can see that the "from" statement includes an object called great\_outdoors\_warehouse, and one called GOSALEDW. These objects represent the data source connections that are used at runtime. You will examine how these connections are defined in Task 5 when you view them in IBM Cognos Administration. For now, you will continue to examine how they are used in IBM Cognos Framework Manager.

17. Click **Cancel**, and then in the **Project Viewer**, expand **Data Sources**, and then click **go\_data\_warehouse**.

The results appear as follows:

Properties	
Name	go_data_warehouse
Query Processing	Unspecified
Rollup Processing	Unspecified
Transaction Access Mode	Unspecified
Transaction Statement Mode	Unspecified
Content Manager Data Source	great_outdoors_warehouse
Catalog	
Cube	
Schema	GOSALES DW
Type	

From the information in the Properties pane, you can see that this model makes use of data source named **go\_data\_warehouse**, which uses a Content Manager data source named **great\_outdoors\_warehouse**. In this case, the modeler has opted to provide a different name for the model data source by editing the Name property in the Properties pane.

The Content Manager Data Source is the object through which:

- runtime data access is achieved
- the process of importing data source objects in to the model is accomplished

You will examine the import process by running the Metadata Wizard.

18. In the **Project Viewer**, right-click **Database view**, and then click **Run Metadata Wizard**.

You can import from a wide range of data source types.

19. Leave **Data Sources** selected, and then click **Next**.

There are currently data sources to choose from to perform the import.

Clicking the New button will let you create a new data source provided you have the appropriate access rights to perform this action.

One of the data sources is named **great\_outdoors\_warehouse** and is the data source that was previously used to import objects in to this model. The name also matches the Content Manager data source name identified at step 16.

20. Click **great\_outdoors\_warehouse**, and then click **Next**.

This data source points to a set of child data source objects, one of them being **GOSALESDW**. This name matches the object name identified when examining the SQL statement in step 16.

21. Expand **GOSALESDW > Tables**.

This data source object includes a set of tables, which can be imported into the model. Included in this set is the **SLS\_SALES\_FACT** table.

22. Expand **SLS\_SALES\_FACT**.

This table includes a set of columns, which can be imported into the model. Included in this set is the **SALE\_TOTAL** column.

23. Click **Cancel**, and then close **IBM Cognos Framework Manager** without saving the project.

Up to this point you have identified how the Revenue query item:

- data values appear in an existing report in IBM Cognos Viewer
- is used in a new report created in Report Studio
- is made available to report authors in a package that is published from IBM Cognos Framework Manager
- is sourced and modeled in the IBM Cognos Framework Manager model
- is imported into the IBM Cognos Framework model as the **SALE\_TOTAL** column

24. In **IBM Cognos connection**, click **Log Off**.

## Task 5. Examine data sources in IBM Cognos Administration.

You will now take on the role of the administrator to examine how data source connections are defined in IBM Cognos Administration.

1. Click Log on again.
2. Log on as **admin/Education1**, and then on the **Welcome to IBM Cognos Software** page, click **Administer IBM Cognos content**.

IBM Cognos Administration is the portal that allows you to monitor and administer the IBM Cognos BI system including servers, security, capabilities, data source connections, and the deployment of content. In the current security environment, Admin is a member of the System Administrators role, which by default, provides access to all functionality in IBM Cognos Administration.

3. Click the **Configuration** tab.

The first node selected is Data Source Connections. Here you can administer existing data sources and create new ones. Note: The New button on the toolbar provides the same user interface experience for creating a new data source that is available in IBM Cognos Framework Manager in the Metadata Wizard.

Existing data sources display; these are the same data sources that appeared when you ran the Metadata Wizard in IBM Cognos Framework Manager, at Task 4, steps 18 to 22.

4. Click the **great\_outdoors\_warehouse** data source.

This data source includes a single data source connection named **great\_outdoors\_warehouse**. Note: You can have multiple data source connections for a single data source. For example, if you have multiple databases with exactly the same structure (but different data), you can create one data source with multiple connections. The data source connection identifies which database you want to connect to.

5. Under **Actions**, click **Set properties - great\_outdoors\_warehouse**, and then click the **Connection** tab.

This connection is configured to connect to a DB2 database. There are many types available for creating connections.



6. Beside the **Connection string** box, click **Edit the connection string**.  
The connection is to a database named GS\_DB, and under Signon, a signon has been configured for this connection. You will now examine the signon.
7. Click **Cancel** twice, and then click the **great\_outdoors\_warehouse** connection.  
This connection includes a single signon named great\_outdoors\_warehouse. The database signon identifies the user's rights in the database. You can have multiple database signons that have access to different tables. Within the database, you can create sets of tables with different owners or schemas, and then provide access to these with the appropriate signon.
8. Under **Actions**, click **Set properties - great\_outdoors\_warehouse**, click the **Signon** tab, and then click **Edit the signon**.  
This signon is configured to connect to the GOSALES DW schema using the credentials of the GOSALES DW user. The GOSALES DW schema is the object referenced in the generated SQL when you examined it in Report Studio (Task 3, step 8) and in IBM Cognos Framework Manager (Task 4, step 20)
9. Click **Log Off**, and then close **Internet Explorer**.  
You have identified how the connection is made to the underlying data source. Next, you will examine the required data source objects as they appear in IBM DB2.

## Task 6. Examine underlying data source objects.

1. From the **Start** menu, click **All Programs > IBM Data Studio > Data Studio 4.1.0.0 Client**.
2. Click **OK** to close the **Workspace Launcher**.
3. From the **Administrator Explorer** pane, expand **localhost > DB2** and then double-click **GS\_DB [DB2 Alias]**.  
The GS\_DB database connection is active and folders are displayed. This is the database identified at Task 5, step 6.

4. From the **Administrator Explorer** pane, double-click the **Schemas** folder. The contents are displayed in the right pane, including the GOSALES DW schema. This is the schema, to which the great\_outdoors\_warehouse data source is connecting, as identified in Task 5, step 8.

A section of the results appear as follows:

Name	Owner
DB2ADMIN	SYSIBM
GOSALES	SYSIBM
GOSALES DW	SYSIBM
GOSALESHR	SYSIBM
GOSALESMR	SYSIBM
GOSALESRT	SYSIBM
NULLID	SYSIBM
SQLJ	SYSIBM
SYSCAT	SYSIBM
SYSFUN	SYSIBM
SYSIBM	SYSIBM
SYSIBMADM	SYSIBM
SYSIBMINTERNAL	SYSIBM

5. From the **Administrator Explorer** pane, double-click the **Tables** folder.
6. In the **Task Launcher** pane scroll down to **SLS\_SALES\_FACT** (Name column).
7. Right-click **SLS\_Sales\_Fact**, point to **Data**, and then click **Browse Data**.
8. Scroll to the right to locate the **SALE\_TOTAL** column and its values.
- You have traced the Revenue item in the Total Revenue by Country report all the way back to its source in the underlying data source and have identified how the IBM Cognos BI system works.
9. Close all open windows.

## Results:

**You obtained a high-level view of how the IBM Cognos BI system works by navigating through the system and tracing the lifecycle of a data item, from its appearance in a report back to existence in an underlying data source.**

## Extend IBM Cognos BI Enterprise

- IBM Cognos provides a wide variety of ways to extend IBM Cognos BI.
- For more information, please visit the [IBM Cognos Web site](#)  
[http://www-01.ibm.com/software/analytics/cognos/.](http://www-01.ibm.com/software/analytics/cognos/)

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Cognos products that extend IBM Cognos BI include:

- IBM Cognos for Microsoft Office (integrate IBM Cognos content with MS Office)
- IBM Cognos Mobile (IBM Cognos content on mobile devices)
- IBM Cognos Analysis for Microsoft Excel (multidimensional analysis on IBM Cognos BI data in MS Excel spreadsheets)
- IBM Cognos Mashup Service

For developers, there is also Composite, which allows for access to an even wider variety of data sources, and the IBM Cognos SDK for customization and application development.

For those requiring access to real-time monitoring of operational data, IBM Cognos offers IBM Cognos BI Real-time Monitoring, which delivers highly visual, interactive, and self-service dashboards, data integration, analysis, and reports.

You can incorporate TM1 widgets into IBM Cognos to allow users to interact with financial plans.

## Summary

- At the end of this module, you should be able to:
  - describe IBM Cognos Business Intelligence (BI) and its position within the IBM Smarter Analytics approach and offerings
  - describe the IBM Cognos 10 Family of offerings
  - describe IBM Cognos BI enterprise components
  - describe IBM Cognos architecture at a high level
  - describe IBM Cognos BI security at a high level
  - explain how to extend IBM Cognos BI

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The image shows the landing page for IBM Cognos BI for Consumers. It features a large graphic of interconnected hexagons in blue, green, and yellow, representing data or connectivity. The IBM logo is in the top right corner. The main title "IBM Cognos BI for Consumers" is centered below the graphic. Below the title is the subtitle "IBM Cognos BI 10.2.2". A small box at the bottom left contains the text "Business Analytics software". The bottom right corner includes a copyright notice: "© 2015 IBM Corporation".

**IBM Cognos BI for Consumers**

IBM Cognos BI 10.2.2

Business Analytics software

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# Objectives

- At the end of this module, you should be able to:
  - identify where consumers access IBM Cognos BI content
  - use published reports
  - drill through to related data
  - run reports with options
  - add comments in saved output
  - personalize how content appears
  - manage human tasks
  - import personal data
  - collaborate with IBM Connections
  - set alerts and watch rules
  - access shared content

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## Where Do Consumers Access BI Content

- My home
- My workspaces
- IBM Cognos content
- My Inbox
- My Data Sets

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My home can be set to any page that the consumer has rights to and wants as their start page.

My workspaces opens IBM Cognos Workspace and displays the saved workspaces of the consumer.

IBM Cognos content opens the IBM Cognos Connection portal at the root level of Public Folders.

My Inbox contains any ad-hoc tasks or notifications that have been assigned to the consumer.

My Data Sets lets you create IBM Cognos reports that are based on your personal data without engaging a professional report author. You can import data from a CSV, XLS or XLSX file, create a stand-alone package for the data in IBM Cognos Connection, and generate reports from that data.

## Use Published Reports

- View the latest output of a report.
- Run a report with specific options.
- Create a report view.
- Schedule reports to run.
- Manage your own data source credentials.

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If you consistently use a specific view, format, or language for a report, create a report view in IBM Cognos Connection in My Folders to easily access your view of the report. Do not make a copy.

A report view shares the same report specification as the source report, but other properties, such as prompt answers, are independent of the source report. Changes to the source report specifications also affect the the report view.

A copy of a report is a snapshot of the source report specification at that time. Future changes to the source report do not affect the copy. The copy is independent.

If your administrator has not created a data source signon and given you access to it, you will be prompted for your database credentials when you:

- view, run, or open an entry
- use a schedule or a job

You can save your data source credentials so you are not prompted for them every time.

The latest output of a report can be viewed in IBM Cognos Viewer. From there, users can also access lineage information. By right clicking the data item of interest, the users will be presented with one or two lineage tabs: Business or Technical lineage. Lineage information traces the items metadata back through the package and its data source. Lineage can also be accessed from the data tree in the studios.

**Business Analytics software**

**IBM**

# Drill Through to Related Data

**Crosstab Source Report**

Revenue	2011	2012
E-mail	<a href="#">44,318,886.43</a>	<a href="#">23,701,042.57</a>

**Click the data item to drill through**

**Target List Report**

Order method	Product line	Year	Revenue
E-mail	Camping Equipment	2012	2,501,787.15
	Golf Equipment	2012	1,182,984.1

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Use a drill-through definition to navigate to a target report from a source report. The drill-through definition maps the value that a source report will pass to a target report. Drill-through definitions can be for a package or from a report.

A package drill-through definition lets you navigate to a target report from any source report that uses that same package. A package can have multiple drill-through definitions.

A report drill-through definition lets you drill through from a source report item to a target report. The target must contain parameters mapped to the correct metadata in the source, or you may be prompted for more information. This ensures that the target report is filtered correctly.

In the example on the slide on the previous page, the drill-through definition was created for the package, and uses the Year and Order method type as the filters. The source report was also created using the Sales and Marketing (cube) package, and has Year as a report item.

Right-click an item in the source report to drill through to the target report.

When you run the target report from the Available links, the report will prompt you if the mapped parameters are not available.

## Specify Run Report Options

- If you run a report with options, you can specify:
  - the report to run in the background
  - a schedule to run your report(s)
  - report output format (HTML, PDF, Excel 2002, Excel 2007, CSV, XML)
  - accessibility support
  - language
  - delivery methods such as saving as a report view, emailing the report output, or sending the report to a mobile device

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Depending on your permissions, you can run reports from the Public Folders and save the output within Public Folders for everyone to access.

With basic permissions, for example a member that is part of the Consumer role, you can only save the report as a report view in My Folders.

When a report runs, it opens in IBM Cognos Viewer. This lets you analyse the report, use the drill functionality to broaden your analysis, and once satisfied with your report, you can add the report to your bookmarks or shortcuts, and distribute the report to other users.

## Specify Properties of an Entry

- Change the properties of your entries to set:
  - general settings such as the description and number of occurrences of run history
  - number of report output versions to keep
  - default run options
  - report prompt behavior and prompt values
  - permissions

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Default run options determine how the report or report view executes, including format, language, and prompt values. You can set one of the following actions as the default action when you click on a report link:

- view the most recent version of the report
- run the report

With basic permissions, you can change report prompt default values only if you run the report or report view from My Folders.

Members of the Consumer role can not change the properties of an entry, unless a copy of the report or a report view exists in their My Folders area. The user who creates the entry in Public Folders is the owner and sets the default properties of the entry in Public Folders. For this reason, members with limited permissions need to copy the report or create a report view of the report, in My Folders.

IBM Cognos provides a dynamic prompt cache update mechanism. To administer a prompt cache, in the properties of the report, select Refresh the report cache and specify the number of days to maintain the cache. A prompt cache is created when a user runs the report and there is no prompt cache available or the cache duration has expired. If a user schedules a report to run and supplies prompt values, this is considered a report execution and the prompt cache behavior will take effect.

## Demo 1: Run a Report, Create a Report View, and Email the Different Versions of the Reports

To complete the demos in this module, you should be using the B5A55\_1567ABCD image.

Before doing this demo, in the BI environment, in the **Taskbar**, click **Services** to ensure that the following services are started:

- Apache Directory Server - default
- DB2-DB2COPY1 - DB2
- DB2DAS - DB2DAS00
- World Wide Web Publishing Service
- Lotus Domino Server (CProgramFilesx86IBMLotusDominodata)
- IBM Cognos

### Purpose:

**You are a member of the Consumer role and therefore have only basic permissions. You want to run a report from Public Folders and send an English version of the report to a colleague and a Spanish version of the report to another colleague in Mexico City. You expect to distribute the Spanish version of the report frequently.**

Task 1. Run the report and view the results.

1. Open **Internet Explorer**, navigate to <http://localhost:88/ibmcognos>, and then log on as **daileyp/Education1**.  
Phil Dailey is a member of the Consumers role.
2. Click **IBM Cognos content**, and then in **Public Folders**, navigate to **Samples > Models > GO Data Warehouse (analysis) > Report Studio Report Samples**.

3. Examine the entries in the **Report Studio Report Samples** folder.  
The Report Studio Report Samples page lists reports created in Report Studio. The icon next to the entry name changes depending on the entry. For example  
an HTML report will have an HTML report icon . A report view of the HTML report will have its own icon . An Event Studio agent will have an agent icon . There are no report views or agents currently in this folder. The icons in the Actions column display common actions available for each report. The More link lists all of the actions that are available for each report.
4. Beside the **Budget vs. Actual** entry, in the **Actions** column for, click **More**.

**Perform an action - Budget vs. Actual**

**Available actions:**

-  [Set properties](#)
-  [View report output versions](#)
-  [View my permissions...](#)
-  [Run with options...](#)
-  [View the schedule](#)
-  [Alert me about new versions](#)
-  [Copy...](#)
-  [Create a shortcut to this entry...](#)
-  [Create a report view of this report...](#)
-  [Add to bookmarks...](#)

Notice that there are more available actions on the Perform an action page than from the previous page. You can run the report from either this page or from the previous page. Many of the options that are available to participants from the Perform an action page appear on the IBM Cognos Viewer toolbar. Note: the available actions depend on a user's access to functionality as determined by their individual access rights or their access rights as members in groups in or roles.

**5. Click **Run with options**.**

The Run with options page lets you select:

- the format and language in which you want to render your report
- the delivery options
- if the report has prompt values
- if you want to be prompted for values to focus your report

As a member of the Consumer role, you have basic permissions in Public Folders. Therefore, you cannot set a default value for the prompt values and you cannot save the report output in Public Folders. This additional capability is available for reports saved in My Folders.

**6. Near the top right, click **advanced options**.**

The Run with advanced options page lets you select the time that you want to run the report. This may be useful if you want to run the report in the background.

**7. In the **Time and mode** section, click **Run in the background**.**

Notice that the delivery options, by default, let you save the report as a report view, as follows:

**Delivery:**  
Select at least one delivery method. For burst reports, the email recipients are determined by the burst specification.

Save the report as a report view [Edit the save options...](#)

Report View of Budget vs. Actual

Save to the file system [Edit the file system options...](#)  
Name: Use the report name. Location: Public Reports. Replace existing files

Print the report  
**Printer location:**  [Select a printer...](#)

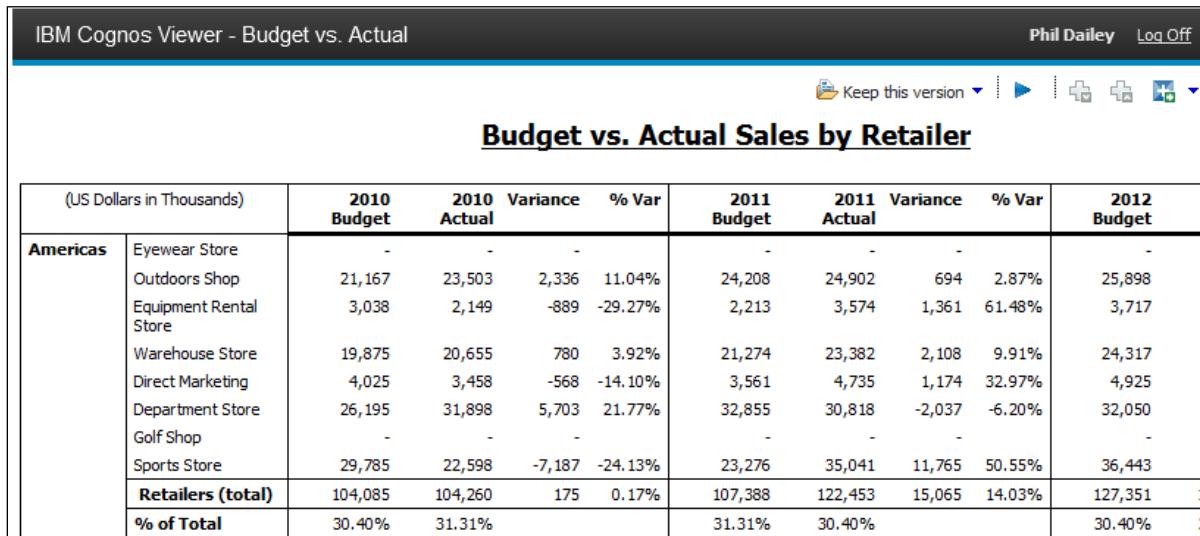
Send the report by email [Edit the email options...](#)  
Phil Dailey (daileyp)

You can create a report view of the report from either the Perform an action page, or when you run the report in the background. In this case, you want to view the report immediately and then determine the report format for distribution.

You will only see the Save to the file system option if this has been configured by your Administrator.

8. In the **Time and mode** section, click **View the report now**, keep all other settings with the default values, and then click **Run**.

The report opens in IBM Cognos Viewer. A section of the report appears as follows:



The screenshot shows the IBM Cognos Viewer interface with the title "IBM Cognos Viewer - Budget vs. Actual". The top right shows the user "Phil Dailey" and a "Log Off" button. Below the title is a toolbar with icons for "Keep this version", "Print", "Zoom", and "Email". The main content area is titled "Budget vs. Actual Sales by Retailer". The data is presented in a table:

(US Dollars in Thousands)		2010 Budget	2010 Actual	Variance	% Var	2011 Budget	2011 Actual	Variance	% Var	2012 Budget
<b>Americas</b>	Eyewear Store	-	-	-	-	-	-	-	-	-
	Outdoors Shop	21,167	23,503	2,336	11.04%	24,208	24,902	694	2.87%	25,898
	Equipment Rental Store	3,038	2,149	-889	-29.27%	2,213	3,574	1,361	61.48%	3,717
	Warehouse Store	19,875	20,655	780	3.92%	21,274	23,382	2,108	9.91%	24,317
	Direct Marketing	4,025	3,458	-568	-14.10%	3,561	4,735	1,174	32.97%	4,925
	Department Store	26,195	31,898	5,703	21.77%	32,855	30,818	-2,037	-6.20%	32,050
	Golf Shop	-	-	-	-	-	-	-	-	-
	Sports Store	29,785	22,598	-7,187	-24.13%	23,276	35,041	11,765	50.55%	36,443
<b>Retailers (total)</b>		104,085	104,260	175	0.17%	107,388	122,453	15,065	14.03%	127,351
<b>% of Total</b>		30.40%	31.31%			31.31%	30.40%			30.40%

## Task 2. Email the report.

The report content is satisfactory and now you want to explore the report format options before emailing the report.

1. From the **IBM Cognos Viewer** toolbar, expand the **View in HTML Format**



- arrow, and then click **View in PDF Format**.

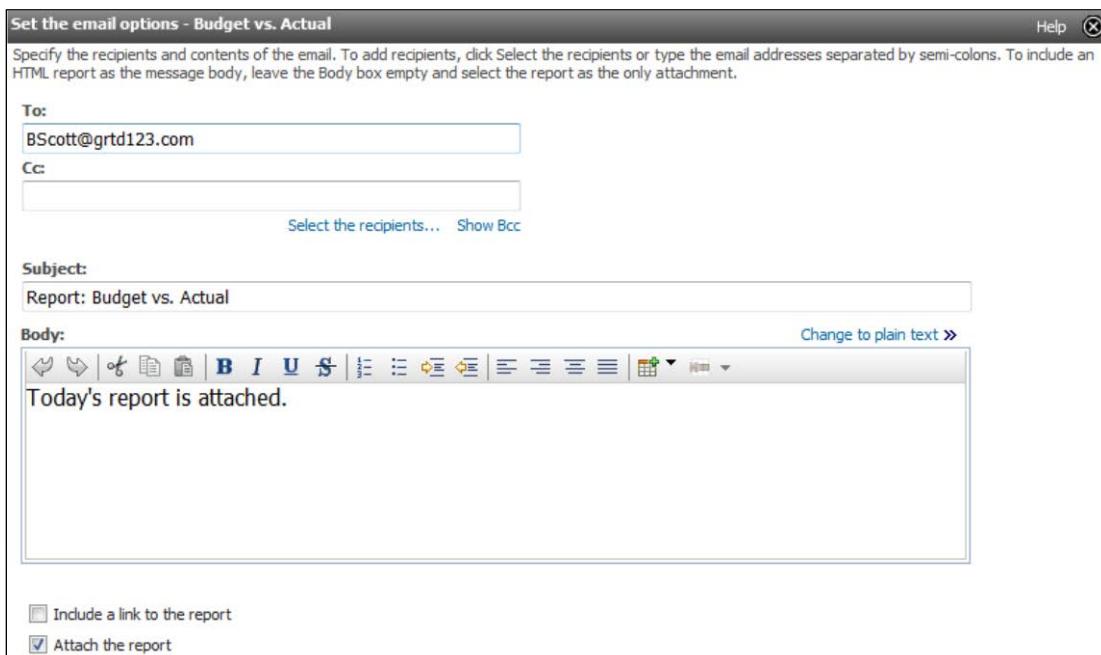
IBM Cognos Viewer displays the report in PDF format. You are satisfied with the current format and are ready to email the report to your colleague, Bart Scott.

2. Click **Keep this version**, and then click **Email Report**.

3. In the **To** box, replace the contents with **BScott@grtd123.com**, and then optionally type a short message in the body text.

The body text is optional. You may type anything you want and explore the different formatting available, as time permits in your course.

The email settings include a recipient, a subject line, an optional comment in the body of the message, and an attachment of the report.



4. Click **OK**.
5. On the taskbar, right-click **Internet Explorer**, and then click **Start InPrivate Browsing**.
6. Navigate to **http://vclassbase/mail/bscott.nsf**, and then press **Enter**.
7. In the **User name** box, type **Bart Scott**, in the **Password** box, type **Education1**, and then click **OK**.

IBM Lotus iNotes launches for the Bart Scott account.

8. On the **Home** tab, click **Mail** .
- If prompted with a message that appears, regarding the installation of Lotus iNotes 8.5 Control, click **Close**.
9. Right-click the email from **pdailey**, point to **Show**, and then click **Preview on Bottom**.  
The PDF version of the report is attached to the email.
10. Click **Logout**, and then click **Yes** to close the message that appears.

## Task 3. Create a report view for Spanish content.

1. In **IBM Cognos Viewer**, click **Keep this version**, and then click **Save as Report View**.
2. In the **Name** box, type **Report View of Budget vs. Actual (Spanish)**, in the **Location** section, click **Select My Folders**, and then click **OK**.
3. On the toolbar, click **Return** , and then in **IBM Cognos Connection** click the **My Folders** tab.

The report view entry appears in My Folders.

If the report view does not appear in My Folders, on the toolbar click Refresh.

In the Actions column, you can see that a new icon appears indicating that this

 report has been saved and that output versions  exist. Since the report was saved once, only one version exists. If the report was run and saved again, then the Versions list in the View report output versions page would show all of the output versions retained. You want to run the report view and save the new output version with Spanish content.

4. Beside the **Report View of Budget vs. Actual (Spanish)** entry, in the **Actions** column, click **Run with options**.

The report view is saved as another output version. The report did not open in IBM Cognos Viewer immediately because you did not select view the report now.

5. In the **Language** list, click **Spanish (Mexico)**, and then in the **Delivery** section, click **Save the report**.

Because you are the owner of the report view, on the Run with options page you can save the report.

6. Click **Run**, and then click **OK**.

7. After a minute, on the toolbar click **Refresh**, and then in the **Actions** column, click **View the output versions for this report**.

You may have to click Refresh more than once.

The HTML saved output is the latest output version. The report view properties settings stipulates that only one output version should be retained. You will verify this in the next task and change report view settings to suit your needs.

8. In the **Formats** list, click **HTML** and analyze the report.

The report data is displayed in Spanish. You are satisfied with the report contents. You know that you will run this Spanish report view frequently and want to view the report property settings to ensure that the settings are appropriate.

Note: report outputs that have been translated will be displayed in the specified language. If report objects, such as titles, have not been translated, these will not appear in the specified language, but will appear in the language(s) used by the author.

#### Task 4. Examine the report view properties.

1. Close the **IBM Cognos Viewer** window, and then on the **View report output versions** page, click **Close**.
2. On the **My Folders** tab in **IBM Cognos Connection**, in the **Actions** column

for **Report View of Budget vs. Actual (Spanish)**, click **Set properties** .

The General tab shows the general settings such as the report name, report owner, a link to the source report, and how many occurrences of run history and report output versions to keep. You want to keep three report output versions.

3. Under **Report output versions**, change the **Number of occurrences** to **3**.

You now want to provide a name and description of this report in Spanish so when the report runs in Spanish, the Spanish name appears in the email.

4. In the **Language** list, click **Spanish (Mexico)**, in the **Name** box type **Presupuesto/Efectivo**, and then in the **Description** box type **2010/2011/2012**.

The name, screen tip and description are shown for the selected language.

<b>Language:</b>	<input type="button" value="Spanish (Mexico)"/>	<a href="#">Remove values for this language</a>
<b>Name:</b>	<input type="text" value="Presupuesto/Efectivo"/>	
<b>Description:</b>	<input type="text" value="2010/2011/2012"/>	

The Spanish name for the report will be saved in the report properties along with the English name.

You can choose a language and enter a name and description for the report in that language. If the portal preferences are changed so that content is viewed in that language, then title and description in that language will be displayed. This distinguishes it from the source report, which does not have values set for every language. This feature is particularly useful if the owner of reports in Public Folders provides titles and descriptions in many foreign languages.

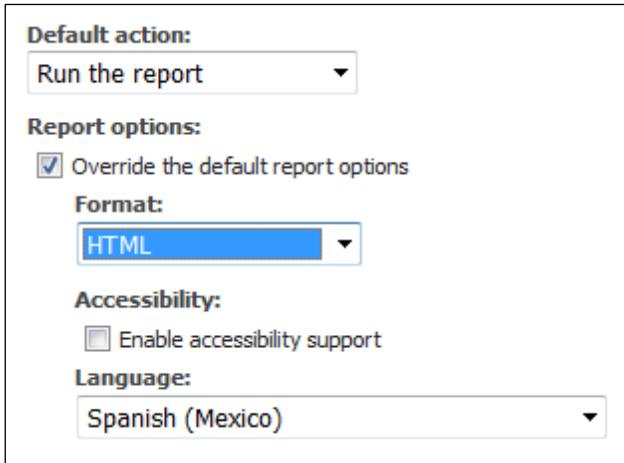
5. Click the **Report view** tab.

The Report view tab shows settings specific to how the report runs.

6. Change the **Default action** to **Run the report**.

The Default action is the action that is performed when you click on the report name from My Folders. The default action will now let you run the report instead of viewing the most recent output.

7. Under **Report options**, select the **Override the default report options** check box, ensure that the format is **HTML**, and then change the **Language** to **Spanish (Mexico)**.



When you run the report view, the report will appear in HTML format with Spanish content.

8. Click **OK** to close the **Set properties** page.

The icon has changed to a run the report view icon. This is because the default action when you click on the report was changed from view the most recent output version to always run the report.

## Task 5. Email the latest output version of the Spanish report.

Although you already have a Spanish output version of the report available, you want to rerun the report to ensure that the report properties render the correct format.

1. Click the **Report View of Budget vs. Actual (Spanish)** entry to run the report.
2. Click **Keep this version**, and then click **Email Report**.
3. In the To box, type **AOrozco@grtd123.com**, and then click **OK**.
4. On the taskbar, right-click **Internet Explorer**, and then click **Start InPrivate Browsing**.
5. Navigate to **http://vclassbase/mail/aorozco.nsf**, and then press **Enter**.
6. In the **User name** box, type **Ana Orozco**, in the **Password** box, type **Education1**, and then click **OK**.

7. Click **Mail**.
8. Right-click the email from **PDailey**, point to **Show**, and then click **Preview on Bottom**.

Click Cancel if an iNotes message appears.

The email is displayed. The HTML version of the report is attached to the email. Notice that the report appears with the Spanish name.

<b>Report: Report View of Budget vs. Actual (Spanish)</b>									
pdailey@grtd123.com									
To: AOrozco@grtd123.com									
(Dólares americanos en miles)	2010 Presupuesto	2010 Real	Varianza	% de var	2011 Presupuesto	2011 Real	Varianza	% de var	2012 Presupuesto
<b>América</b>	Óptica	-	-	-	-	-	-	-	-
	Tienda de productos de ac	21,167	23,503	2,336	11.04%	24,208	24,902	694	2.87%
	Tienda de alquiler de equ	3,038	2,149	-889	-29.27%	2,213	3,574	1,361	61.48%
	Tienda al por mayor	19,875	20,655	780	3.92%	21,274	23,382	2,108	9.91%
	Maketing Directo	4,025	3,458	-568	-14.10%	3,561	4,735	1,174	32.97%
	Grandes almacenes	26,195	31,898	5,703	21.77%	32,855	30,818	-2,037	-6.20%
	Tienda de golf	-	-	-	-	-	-	-	-
	Tienda de deportes	29,785	22,598	-7,187	-24.13%	23,276	35,041	11,765	50.55%
<b>Minoristas (total)</b>	104,085	104,260	175	0.17%	107,388	122,453	15,065	14.03%	127,351

9. Click **Logout**, and then click **Yes** to close the window.
10. Return to **IBM Cognos Viewer**, and then log off.

Leave the Log on again window open for the next demo.

## Results:

You created a customized report view for a Spanish content report in My Folders. You ran the report with options to create PDF format in English, and HTML format of the report view in Spanish. The report and report view were distributed by email.

## Manage Your Own Data Source Credentials

- Manage our own data source signons.
- Save your data source credentials.
- View or delete your data source credentials.

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You can save your data source credentials so that you are not prompted for them every time.

If you are a user, your administrator must give you execute permissions for the Manage own data source signons capability and traverse permissions for its ancestors. You must also have read and traverse permissions on your account.

You can save credentials to your personal profile, as long as you do not have access to any predefined signons for the data source. This allows you access to the data source without being prompted for credentials each time.

You can view and delete your data source credentials from the My Preferences page.

## Add Comments to Saved Output

- Report consumers can add comments to saved reports viewed in IBM Cognos Viewer:
  - HTML
  - PDF
  - XML

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Comments can be added to a specific version of a report and are deleted with that report version. The comments are not available in other versions of a report, unless they are manually added by a report user.

You can add multiple comments to a report. Before a user can add comments, the report owner or report administrator must enable comments in saved output versions.

Comments are included when a report is viewed online or when a burst report is distributed via the portal, but they are not included in printed or emailed reports.

To add comments, a report user must have read permission to the report output. These comments are visible to all other users who have read permission to the report output. However, only the comment owner, or an administrator, can modify or delete comments.

## Demo 2: Add Comments to Saved Output

### Purpose:

You would like to add comments to a report in order to communicate to the report consumers that a piece of data needs to be updated.

### Task 1. Enable adding comments in saved output.

Before any user can add comments to a report, the feature must be enabled. As the report administrator, Branka Hirsch, you will enable comments by choosing a property setting on a report.

1. Log on as **hirschb/Education1**.
2. Click **IBM Cognos content**, and then navigate to **Samples > Models > GO Sales (query) > Report Studio Report Samples**.
3. Beside **Order Invoices - Donald Chow, Sales Person**, in the **Actions** column, click **Set properties**, and then click the **Report** tab.
4. Click **Advanced options**, select the **Enable comments in saved output versions** check box, and then click **OK**.
5. In **IBM Cognos Connection**, click the **Order Invoices - Donald Chow, Sales Person** entry.
6. In **IBM Cognos Viewer**, on the toolbar, click **Keep this version**, click **Save Report**, and then on the toolbar click **Return**.
7. In **IBM Cognos Connection**, after a minute, click **Refresh**.

The Order Invoices - Donald Chow, Sales Person report has saved output.

## Task 2. Add comments to the saved output in IBM Cognos Viewer.

1. Log off **Branka Hirsch**, and then log on as **shapirom/Education1**. Max Shapiro is a member of the Report Authors role. You will view the saved output.
2. Click **IBM Cognos Content**, navigate to **Samples > Models > GO Sales (query) > Report Studio Report Samples**, and then beside **Order Invoices - Donald Chow, Sales Person**, in the **Actions** column, click **View the saved output versions for this report** for the report.
3. In the **Formats** column, click **HTML**.

The saved output for the report appears in IBM Cognos Viewer as follows.

Sales Person		Order Method		Ship Date	
Donald Chow		Web		Jul 13, 2013	

Product	Product number	Product description	Quantity	Unit price	Price
Star Gazer 3	14110	The Star Gazer 3 features a water proof fly, mesh window and two doors for good ventilation. Packed size: 20 x 70 cm. Weight: 5.3 kg.	127	\$744.15	\$94,507.05
Hibernator Pillow	22110	Camp pillow is filled with soft, luxurious fibers for maximum compactness and resiliency. Covered with soft cotton on one side and soft flannel on the other.	349	\$17.65	\$6,159.85

<b>Please make checks payable to: The Great Outdoors</b>			<b>\$100,666.90</b>
			Tax <b>\$7,046.68</b>
			Shipping <b>\$1,006.67</b>
			Total <b>\$108,720.25</b>

Notice that the **Add comments** link at the right of the toolbar is enabled.

4. Click **Add comments**, and then click **Add a comment**.
5. In the **Add a Comment** box, populate the text boxes as follows:
  - Name: **Need to fix the tax calculation**
  - Comment: **The tax rate has increased from 7% to 8%. The tax calculation needs to be modified to the new rate.**
6. Click **Finish**, close **IBM Cognos Viewer**, and then on the **View report output versions** page, click **Close**.

## Task 3. View comments in saved output in IBM Cognos Viewer.

1. Log off, and then log on as **daileyp/Education1**.
2. Click **IBM Cognos Content**, navigate to **Public Folders > Samples > Models > GO Sales (query) > Report Studio Report Samples**, and then click the **Order Invoices - Donald Chow, Sales Person** entry.
3. Click **Add comments**, and then point to the **Need to fix the tax calculation** comment.

A section of the result appears as follows:

The screenshot shows the IBM Cognos Viewer interface for an invoice. At the top, there's a toolbar with various icons like 'Keep this version', 'Add this report', 'Watch new versions', and 'Add comments'. On the right side of the toolbar, there's a dropdown menu for 'Add comments' with an option 'Need to fix the tax calculation' selected. The main content area displays an invoice header for 'Invoice 105704' from 'Ultra'. Below the header, there's a note: 'Name: Need to fix the tax calculation' and a comment: 'Comment: The tax rate has increased from 7% to 8%. The tax calculation needs to be modified to the new rate.' To the right of the comment, there's a 'Modification Time: March 20, 2015 9:33:47 AM' and an 'Owner: Max Shapiro'. A 'View' link is also present. At the bottom of the viewer window, there's a table of products with columns for Product, Product number, Description, Quantity, Unit price, and Price. The total price listed is '\$100,666.90'. Below the table, there's a note: 'Please make checks payable to: The Great Outdoors' and '19.5% interest per annum will be charged on overdue accounts.' There are also tax, shipping, and total amounts listed at the bottom right.

Product	Product number	Product description	Quantity	Unit price	Price
Star Gazer 3	14110	The Star Gazer 3 features a water proof fly, mesh window and two doors for good ventilation. Packed size: 20 x 70 cm. Weight: 5.3 kg.	127	\$744.15	\$94,507.05
Hibernator Pillow	22110	Camp pillow is filled with soft, luxurious fibers for maximum compactness and resiliency. Covered with soft cotton on one side and soft flannel on the other.	349	\$17.65	\$6,159.85
					<b>\$100,666.90</b>
					Tax \$7,046.68
					Shipping \$1,006.67
					Total <b>\$108,720.25</b>

Notice that you can view the comment, but you cannot modify or delete it.

4. Log off.

Leave the Log on again window open for the next demo.

### Results:

**The ability to add comments to a report was enabled by the report administrator. As a report author, you added a comment to a report, and then you logged in as a different user and viewed the comment in IBM Cognos Viewer.**

## Demo 3: Schedule Multiple Reports

### Purpose:

You notice that you run the Budget vs. Actual report frequently, in both English and Spanish, and would like to schedule the report to run automatically. You also run the Quantity Sold vs. Shipped and Inventory report in the Public Folders frequently and would like to schedule this report as well, and keep output versions of the report. For distribution reasons, you want to render the outputs of both reports in Excel and in PDF format. You will create a job in My Folders that includes running all of these reports.

### Task 1. Create a job containing two reports.

You need to create a report view of Quantity Sold vs. Shipped and Inventory because you want to save output versions of the report. As a member of only the Consumer role, you do not have permissions to run and save a report from Public Folders, only from My Folders.

1. Log on as **daileyp/Education1**.
2. Click **IBM Cognos content**, navigate to **Public Folders > Samples > Models > GO Data Warehouse (analysis) > Report Studio Report Samples**, and then in the **Actions** column for **Quantity Sold vs. Shipped and Inventory**, click **More**.  
You may have to navigate to the second page of entries to see the report entry.
3. Click **Create a report view of this report**, in the **Location** section, click **Select My Folders**, and then click **Finish**.
4. On the toolbar in **IBM Cognos Connection**, click **New Job** .
5. In the **Name** box type **Sales Performance**, in the **Location** section click **Select My Folders**, and then click **Next**.
6. Under the **Steps** pane, click **Add**.
7. From **My Folders**, select the **Report view of Budget vs. Actual (Spanish)** and **Report view of Quantity Sold vs. Shipped and Inventory** check boxes, and then click **Add** (yellow arrow).

8. On the **Select entries (Navigate)** page click **OK**, and then in the **Defaults for all steps** section, click **Set**.

You want to specify options for the entire job. The choices that you make on this page will apply to both reports.

9. Click **Report options**, and then select the options as follows:

- **Specify default values for all the reports of this job:** Selected
- **HTML:** Not selected
- **PDF:** Selected
- **Excel 2007:** Selected

When this job runs, you want it to generate an Excel and PDF version of each report. You want to leave the other run options such as language and delivery set with the default options.

10. Click **OK**, and then leave the default submission steps as **All at once**.

The result appears as follows:

Steps:		Options and prompt values
<input type="checkbox"/>	...> Name	
<input type="checkbox"/>	Report View of Budget vs. Actual (Spanish)	Default <input style="width: 20px; height: 20px;" type="button" value="..."/>
<input type="checkbox"/>	Report View of Quantity Sold vs. Shipped and Inventory	Default <input style="width: 20px; height: 20px;" type="button" value="..."/>

**Submission of steps:**  
Submitting steps in sequence implies that a step is submitted only upon completion of the step before it.

All at once  
 In sequence  
 Continue on error

You can run the report in sequence to ensure that a specific report is emailed before another. In this demo, it does not matter which report runs and is emailed first because the reports are sent to different recipients.

11. On the **Select the steps** page, click **Next**, click **Save and schedule**, and then click **Finish**.

Now you can schedule how frequently you want the job to run. Each time the job runs, two Excel report outputs, and two PDF outputs (one for each report) will be created.

12. Click the **By Day** tab, click **Every [1] minute(s)**, and then in the number of minutes box, type **2**.

Normally, you would not schedule a job to run every two minutes. However, for the purposes of this demo, you will schedule the job to run every two minutes.

13. In the **End** section on the right, select **End by**, and then set the **End by time** to be **4 minutes** from your current date and time.

The Sales Performance job will be executed every two minutes and create the PDF and Excel reports.

14. Click **OK**, and then in **IBM Cognos Connection**, click **My Folders**.

The Sales Performance job displays among the entries on the My Folders tab.



## Task 2. View the report outputs generated by the Sales Performance job.

1. After at least two minutes have passed, in **IBM Cognos Connection** on the toolbar, click **Refresh**.

New report output versions have been created for Report View of Budget vs. Actual (Spanish) and Report view of Quantity Sold vs. Shipped and Inventory. The date and time for the Sales Performance job and the two reports have changed.

You can view the run history for the job and the reports from the Actions list. For the purposes of this demo, you will first verify whether the job ran successfully from the My Activities and Schedules page.

2. Click **My Area Options** , click **My Activities and Schedules**, and then in the left pane, click **Schedules**.
3. In the **Name** column, expand the **Sales Performance** entry **Actions** list, and then click **View run history**.

The job ran successfully.

4. Click **View the run history details**  for the entry, and then in the **Actions** column, click **View outputs** for each report.

The output versions for each report produced two different report formats: Excel and PDF. In the previous demo, you set the default settings for the Actual vs. Budget report view to Spanish, however, the language chosen in the job was English. Therefore the Spanish report view was rendered in English. You want to change the language option because you usually email an English and a Spanish version of the report to different recipients.

5. On the **View the run history details** page click **Close**, and then on the **View run history** page click **Close**.

### Task 3. Edit the job and schedule.

1. Beside **Sales Performance**, in the **Actions** list, click **Set properties**.
2. Click the **Job** tab, and then for the **Report View of Budget vs. Actual (Spanish)** entry, under **Options and prompt values**, click **Edit the step options** .
3. In the **Report options** section, select the **Override the default values** check box, and then in the **Languages** section, click **Select the languages**.
4. Under **Available languages**, click **Spanish (Mexico)**, and then click **Add**. This will render the report in both English and Spanish.
5. Click **OK** to close each of the following pages: **Select the languages**, **Select the report options**, and **Set properties**.
6. On the **My Activities and Schedules** toolbar, click **Return**.
7. In **IBM Cognos Connection**, in the **Actions** column for **Sales Performance**, click **More**, and then click **Modify the schedule**.
8. Schedule the job to run every **2** minutes and end **4** minutes from your current date and time.
9. After at least 2 minutes have passed, return to **My Folders** to view the output versions for **Report View of Budget vs. Actual (Spanish)**.

- In the **Formats** list beside **Languages**, click the down arrow to expand the filter list, and then click **(All languages)**.

The result appears similar to the following (may have a different order):

Formats	Languages
PDF	English (United States)
Excel 2007	English (United States)
PDF	Spanish (Mexico)
Excel 2007	Spanish (Mexico)

The Report View of Budget vs. Actual (Spanish) shows PDF and Excel reports in English and Spanish.

- Click the **PDF** report for **Spanish (Mexico)** and verify the results.  
The report opens in IBM Cognos Viewer and lets you verify the results and perform actions against the report such as distribute the report via email.
- Close **IBM Cognos Viewer**, in the **Actions** column for the **PDF**

**Spanish (Mexico)** report, click **Download** , and then click **Open**.

The report does not open in IBM Cognos Viewer. It opens in Adobe Reader.

- Click **Cancel** if prompted with an **Adobe** dialog box, and then close **Adobe Reader**.

#### Task 4. Disable the job.

- On the **View report output versions** page, click **Close**.
- In **IBM Cognos Connection**, on the toolbar click **My Area Options**, click **My Activities and Schedules**, and then click **Schedules**.
- Select the **Sales Performance** check box, on the toolbar click **Disable** , and then click **OK**.

The schedule for the job is disabled until you enable the schedule again or run the job manually. To enable the schedule, click the job entry and then click **Enable**. Alternatively, you can enable the entry from the **Modify the schedule** page.

- Log off.

Leave the Log on again window open for the next demo.

#### Results:

**You created a job that includes two reports. You then scheduled this job to run every two minutes and rendered both reports in Excel and PDF in various languages.**

## Personalize How Content Appears

- Change your general, personal and portal tab preferences.
- To organize content:
  - create folders
  - create URL links
  - create shortcuts
  - copy
  - paste

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You can change personal preferences to customize the look and feel of your instance of IBM Cognos connection. Some of these changes include: screen styles, product and content language, content in a details or folder view, report output formats, sequence of your portal tabs, and showing hidden entries in the portal.

By creating folders, URL links, shortcuts, copies, and views you can organize the content of your files in a manner meaningful to you.

A copy of a report is not the same as a report view of a report. If you want to:

- use a generic report in Public Folders as the basis for another report, make a copy of the report in another location and modify it
- keep all the logic from a source report, except the default run options, then make a report view in another location

A new folder has the same access permissions as the parent folder in which it was created.

If you want to see the latest version of the data, you should create a shortcut to the report instead of creating a copy of the report or creating a report view.

Administrators can set access permissions on styles to grant or deny access based on users, groups, or roles. They can also set user profiles to deploy specific styles to specific users.

An administrator controls which users, groups, or roles can hide entries by granting the users access to the Hide Entries capability in IBM Cognos Administration. As an administrator, you have the option to show the default access to this capability using the following steps:

1. From the Launch menu, click IBM Cognos Administration.
2. Click Security, click Capabilities, and then open the Properties dialog for the Hide Entries capability.
3. Click the Permissions tab.

By default, the Everyone group has access to this capability.

## Demo 4: Set Personal Preferences and Organize Content

### Purpose:

You work in the Mexico City office and have just installed IBM Cognos BI. You want to customize the portal preferences for how the entries are displayed, the content language, and the time zone.

#### Task 1. Change the general preferences.

1. Log on as **bauer1/Education1** credentials.
2. Click **IBM Cognos content**, on the toolbar click **My Area Options**, and then click **My Preferences**.

The Set preferences page opens. The preferences are grouped into 3 tabs (General, Personal, and Portal Tabs).

The number of entries in list view displays the maximum number of entries listed on each portal tab. You will leave the default as 15.

3. In the **Separators in list view** list, click **Grid lines**.

Grid lines are displayed to separate each entry when entries are displayed in a list.

4. Under **Style**, in the **Style** list, click **Contemporary**.

The preview button next to the Style icons lets you preview each style before applying a style to your portal page.

5. Under **Style**, select the **Show hidden entries** check box, and then under **Report format**, deselect the **Show the Welcome page at startup** check box.

You want to change the product and content language. By default, the IBM Cognos product component is installed in English, French, German, Japanese, and Chinese. However, other languages can also be installed. In this demo, IBM Cognos was installed using the default settings. Consequently, the Spanish product language was not included. Therefore you will leave the product language as English. You want to change the content language to Spanish so that all your reports are displayed in Spanish.

6. Under **Regional options**, for the **Content language** area, click **Use the following language**, and then in the list, click **Spanish (Mexico)**.

7. Under **Time Zone**, click **Use the following time zone**, and then in the list, click **(GMT-06:00) Central Time: Chicago, Cambridge Bay, Mexico City**.

8. Click **OK**.

A section of the portal page appears as follows:

Name	Modified	Actions
BSA55	19 de marzo de 2015 11:23:36	<a href="#">More...</a>
Calgary	19 de marzo de 2015 11:59:08	<a href="#">More...</a>
Ejemplos	17 de abril de 2013 08:54:00	<a href="#">More...</a>
Ejemplos_DrillThrough	9 de abril de 2013 14:21:19	<a href="#">More...</a>
Ejemplos_PowerCube	8 de mayo de 2013 10:08:32	<a href="#">More...</a>
Samples_Dynamic_Cubes	26 de marzo de 2013 09:31:05	<a href="#">More...</a>

Notice that the language for product related items such as toolbar icons and links are displayed in English, but content related items such as packages, tabs, and descriptions are in Spanish.

9. On the toolbar, click **My Area Options**, click **My Preferences**, in the **Portal** section, change **Default view** to **Details**, and then click **OK**.

The folders are now displayed in a list with details for entries, where they have been provided. Since you prefer a details view, leave this setting.

## Task 2. Change the portal sequence and review all settings.

Because you will be working frequently with the contents of the My Folders directory, you will make that the first portal tab.

1. Return to the **Set preferences** page, click the **Portal tabs** tab, and then click **Modify the sequence**.
2. Click **Mis carpetas** (My Folders), click **To top**, and then click **OK**.
3. Click **OK** to close the **Set preferences** page.



Notice that the tab called **Mis carpetas** (formerly My Folders) is now the first tab.

4. Log off, and then log on again as **bauerl/Education1**.

The Welcome to IBM Cognos page does not display, and instead you are taken directly to the My Folders tab in IBM Cognos Connection.

5. Navigate to **Carpetas públicas\Ejemplos\Modelos\Almacén de datos VA (consulta)\Ejemplos de informes de Report Studio**.  
Notice the icon beside the Remuneración (oculto) report appears faded to indicate that it is a hidden entry.
6. Go to the **Set preferences** page, change the **Content language** and **Time Zone** to default.
7. Under **Report format**, select the **Show the Welcome page at startup** check box, and then click **OK**.

### Task 3. Create a folder and add shortcuts.



1. Click the **My Folders** tab, and then on the toolbar, click **New Folder**.
2. In the **Name** box, type **Daily Sales Reports**, and then click **Finish**.
3. Click the **Public Folders** tab, navigate to **Samples >Models > GO Data Warehouse (analysis) > Query Studio Report Samples**.
4. Beside **Return Quantity by Product Line Chart**, in the **Actions** column, click **More**, and then click **Create a shortcut to this entry**.
5. Under **Location**, click **Select My Folders**, and then click **Select another location**.
6. Click **Daily Sales Reports**, click **OK**, and then click **Finish**.
7. Create a shortcut to the **Returns by Product Type** report inside the Daily Sales Reports folder, and then navigate to the **Daily Sales Reports** folder in **My Folders**.

A section of the My Folders tab appears as follows:

Name	Modified	Actions
Shortcut to Return Quantity by Product Line Chart	March 22, 2015 10:26:23 AM	More...
Shortcut to Returns by Product Type	March 22, 2015 10:27:19 AM	More...

8. Log off.

Leave the Log on again window open for the next demo.

### Results:

**You successfully changed the general and portal tab preferences for your instance of IBM Cognos Connection.**

## Manage Human Tasks

- Collaborate in Performance Management.
- Create or view human tasks.
- Set alerts and watch rules.

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Human tasks are activities that are created to incorporate user interaction in the resolution of issues, completion of ad-hoc tasks, acknowledgement of task status, and notification of alerts and watch rules. IBM Cognos Connection provides a variety of tools to manage these human tasks.

Collaboration in Performance Management allows the integration of IBM Connections, which provides a greater management of input from a global enterprise to reach a single view of the truth and providing a single decision.

Administrators can use My Inbox to setup ad-hoc tasks and notifications and assign them to one or more users. Each user can view their task inbox (My Inbox) for the task and notifications that are assigned to them. Each user manages the status and progress of these tasks and notifications. In turn, the administrator of the task receives updates in there My Inbox. Human tasks can be created from My Inbox as well as from Event Studio and by setting watch rules and alerts on reports.

## My Inbox - View and Filter

- Task Type
- Priority
- Status
- Date

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My Inbox allows administrators to generate ad-hoc tasks and notifications and assign them one or more users. By selecting different properties the administrator can attach reports, set the priority, set status to not started or cancel, and set the tasks start and due dates.

When the user checks their My Inbox, they can open a task or notification and start or update the task. Any changes in status or ownership will make the administrator aware of the progress of the task. The user can open any attachments and add comments back to the administrator if the administrator has given them the rights. The user can make managing their tasks easier by filtering on task type, priority, or status.

## Demo 5: Create and Action an Ad-Hoc Task and Notification

### Purpose:

You would like to set up a task to review a report within a critical time frame. You would also like to add a notification of an important meeting to My Inbox.

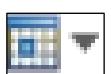
Task 1. Create a new task.

1. Log on as **daileyp/Education1**, and then click **My Inbox**.

2. Click **New Task** .

Notice that, by default, the Stakeholders box includes the Phil Dailey user.

3. In the **Subject** box, type **Customer Satisfaction Report**, and then in the **Message** box, type **Please review the attached report**.

4. Beside **Start By**, click the calendar , and then choose tomorrow's date.
5. Beside **Due Date**, click the calendar, and then choose the day after tomorrow's date.
6. At the bottom right of the page, click **Add links**, navigate to **Samples > Models > GO Data Warehouse (analysis) > Report Studio Report Samples**, and then select the **Customer Returns and Satisfaction** check box.
7. Click **Add**, and then click **OK**.
8. At the bottom left of the page, click **Advanced**, and ensure that all three Send notification check boxes are selected.

9. Under **Send notifications on change**, select the **Started**, **Owner changed**, and **Comment** check boxes.

A section of the result appears as follows:

<b>Options:</b>
<input checked="" type="checkbox"/> Send notification if not started by the start date
<input checked="" type="checkbox"/> Send notification if not completed by the due date
<input checked="" type="checkbox"/> Send notification on change
<input checked="" type="checkbox"/> Started <input checked="" type="checkbox"/> Owner changed
<input checked="" type="checkbox"/> Comment <input checked="" type="checkbox"/> Completed
<input checked="" type="checkbox"/> Canceled

10. Above **Potential Owners**, click **Save**.

The task appears with a name that is taken from the subject line of the task.

11. Click the **Customer Satisfaction Report** task to view the details.

You want to set the owner of the task as Laura Bauer.

12. Beside **Owner**, click **Change owner**, and then click **LDAP**.

13. Select **Laura Bauer (bauerl)**, click **OK**, and then click **Save**.

Because the Phil Dailey user is still listed as a stakeholder and Laura Bauer is listed as the owner, when both users are logged in, they will see the entry in their respective My Inbox.

## Task 2. Log in as the task owner to view the task.

1. Log off, and then log on as **bauerl/Education1**.
2. On the **IBM Cognos software** page, click **My Inbox**.  
The Customer Satisfaction Report task appears.
3. Click **Customer Satisfaction Report**.

After examining the task you see that you have been assigned ownership of this task. Unfortunately, you will be unable to take ownership because you will be away on vacation. You will add a comment to the task and remove yourself as the owner.

4. At the bottom of the page, click the **Comments** tab, and then click **Add comment** .
5. In the **New comment** box, type **I cannot take ownership of this task because I will be away on vacation. I have assigned ownership to Sally White.**, and then click **OK**.

When you submit the comment, an email is sent out to the Phil Dailey user. This happens because in a previous task (Task 1, step 9) you configured the task to send a notification when a comment is added.

6. Click **Change owner**, click **LDAP**, and then click **People**.
7. Search for and add **Sally White** as the owner of the task, and then click **Save**.
8. On the taskbar, right-click **Internet Explorer**, and then click **Start inPrivate Browsing**.
9. Navigate to **http://vclassbase/mail/pdailey.nsf**, and then press **Enter**.
10. In the **User name** box, type **Phil Dailey**, in the **Password** box, type **Education1**, and then click **OK**.

11. In the left pane click **Mail** , and then open the latest email from **LBauer**.  
A section of the result appears as follows:

<b>Sally White now owns task: Customer Satisfaction Report</b>
<b>LBauer@grtd123.com</b>
To: pdailey@grtd123.com
Sally White now owns task.
Subject: Customer Satisfaction Report
Description: Please review the attached report.
<a href="#">Open in web browser.</a>

12. Click **Logout**, and then click **No**.
13. In the same **Internet Explorer** session, navigate to <http://vclassbase/mail/swhite.nsf>.
14. Log in with the credentials **Sally White/Education1**, in the left pane click **Mail**, and then open the email from **LBauer**.

The result appears as follows:

<b>Laura Bauer has assigned you a task: Customer Satisfaction Report</b>
<b>LBauer@grtd123.com</b>
To: SWhite@grtd123.com
Laura Bauer has assigned you a task.
Subject: Customer Satisfaction Report
Description: Please review the attached report.
<a href="#">Open in web browser.</a>

15. Leave the **IBM Lotus iNotes** browser instance open.

### Task 3. Log in as Sally White to view the task.

1. In **IBM Cognos BI**, log off, and then log on as **whites/Education1**.
2. Click **My Inbox**, and then click the **Customer Satisfaction Report** task.
3. Click the **Comments** tab, and then view the comment added by **Laura Bauer**.

## Task 4. Reset system date to simulate the task lifetime.

1. Launch the system calendar, and set the date to be 3 days from the current date to simulate the actions that were scheduled to be carried out.

To do this, in the bottom right of the System Tray, click the time, click Change date and time settings, in the Date and Time dialog box, change the date to 3 days from today's date, and then click OK.

Once the system date is updated, additional emails will be sent.

2. Return to the **iNotes** session, on the left, click **Inbox**, and then click

**Refresh** .

Notice that two new e-mails have been received.

3. Click **Inbox**, on the toolbar click **Refresh**, and then double-click the earlier email.

A section of the result appears as follows:

<b>Work has not been completed on task: Customer Satisfaction Report</b>
<b>pdailey@grtd123.com</b>
To: SWhite@grtd123.com
Cc: pdailey@grtd123.com
Work has not been completed on task.
Owner: Sally White
Subject: Customer Satisfaction Report
Description: Please review the attached report.
<a href="#">Open in web browser.</a>

This message represents that the task has passed the due date, but has not been marked as completed.

4. Close the email and then double-click the next email.

A section of the result appears as follows:

<b>Work has not started on task: Customer Satisfaction Report</b>
<b>pdailey@grtd123.com</b>
To: SWhite@grtd123.com
Cc: pdailey@grtd123.com
Work has not started on task.
Owner: Sally White
Subject: Customer Satisfaction Report
Description: Please review the attached report.
<a href="#">Open in web browser.</a>

This message represents that the task has passed the start date.

5. Click **Logout**, and then click **Yes**.
6. In **My Inbox**, log off.
7. Return the system date back to the original setting.

## Task 5. Work with New Notifications in My Inbox.

1. Log on as **daileyp/Education1**.
2. Click **My Inbox**, click the **New Task** action arrow, and then click **New Notification**.
3. Under the **CC** box, click **Add/Remove recipients**, and then click **LDAP**.
4. Click **People**, and then select the **Show users in the list** check box.
5. Select the **Laura Bauer (bauerl)** check box, and then click **To**.
6. Search for and add **Sally White (whites)** to the **Selected entries** pane, and then click **OK**.
7. In the **Subject** box, type **Please review and acknowledge the following notification regarding corporate travel.**
8. In the **Message** box, type the following text:  
**Mandatory meeting on June 19, 2015 for all managers and team leaders regarding the new Corporate policy on travel.**  
For the date, insert a date that is 3 months from your current date.
9. At the lower left click **Advanced**, select the **Request acknowledgement** check box, and then click **Send**.

10. On the taskbar, right-click **Internet Explorer**, and then click **Start InPrivate Browsing**.
  11. Navigate to **http://vclassbase/mail/lbauer.nsf**, and then press **Enter**.
  12. Log in with **Laura Bauer/Education1** credentials.
  13. In the left pane click **Mail**, and then open the email from **PDailey** with the **Subject** that starts with **Phil Dailey has sent you a notification:**
- A section of the result appears as follows:

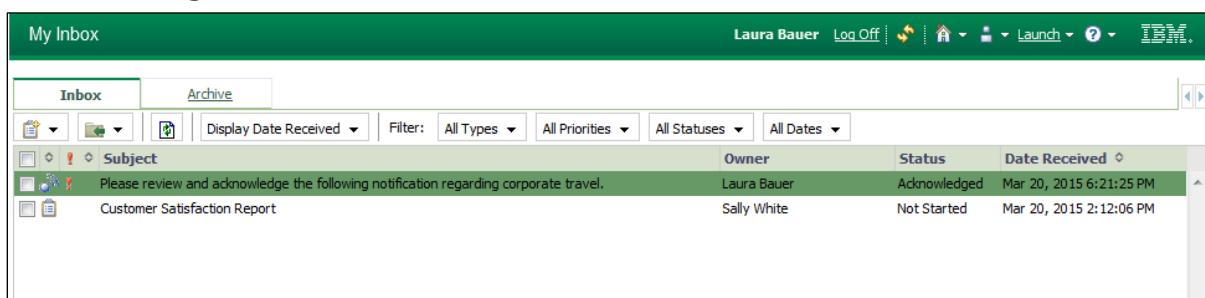
**Phil Dailey has sent you a notification: Please review and acknowledge the following notification regarding corporate travel.**  
**pdailey@grtd123.com**  
To: LBauer@grtd123.com, SWhite@grtd123.com  
Phil Dailey has sent you a notification.  
Subject:  
Please review and acknowledge the following notification regarding corporate travel.  
Description:  
Mandatory meeting on June 19, 2015 for all managers and team leaders regarding the new Corporate policy on travel.  
[Open in web browser.](#)

14. Click **Logout**, and then click **Yes**.

## Task 6. View the Notification in My Inbox

1. In **IBM Cognos BI**, log off, and then log on as **bauerl/Education1**.
2. Click **My Inbox** to view the new notification task.
3. Click the **Please review and acknowledge the following notification regarding corporate travel.** notification task to view the details.
4. In the lower left, click **Acknowledge**.

The status of the notification has changed to Acknowledged and the Acknowledge button is not available.



5. Log off.

Leave the Log off window open for the next demo.

**Results:**

**You have set up ad hoc and notification tasks in My Inbox. For the ad hoc task, you applied a start and end date, assigned ownership, and set notification criteria. You also set up a notification of a mandatory meeting with an acknowledgement required.**

# Import Personal Data

- Use My Data Sets to:
  - import data from a delimited text file or Microsoft Excel (.xls and .xlsx) spreadsheet stored on your computer
  - create a stand-alone package for the data in IBM Cognos Connection
  - generate reports from that data

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When you import from your personal file, your data is saved in a database and is protected by the same IBM Cognos security as your enterprise data. You then publish a stand-alone package to any location in IBM Cognos Connection for which you have write permissions. As a result, you can report on your data in a secure environment. You can see only your personal data sets and can delete any packages or data sets that you created. You can grant other users access to your personal data by sharing the corresponding packages.

My Data Sets is different than the External Data feature in three ways:

- You can import much higher volumes of xls, xlsx, and delimited text data.
- Imported data remains on the server for as long as the user wants.
- You create stand-alone packages instead of expanded instances of existing packages.

To enable personal data imports, the administrator must first:

- install and configure an IBM DB2 database to serve as a personal data set repository
- configure a data source connection to a personal data set repository

Administrators can create multiple data set repositories to maximize security or distribute the repository workload among multiple servers.

## Demo 6: Import and Report on Personal Data

### Purpose:

**As an administrator, you have already created a database to act as the My Data Sets repository. You will now create a data source connection to this database. To test this functionality, you will import data from a tab delimited text file on your C: drive and publish the data as a package. Finally you will create a simple report from the data in the package using Report Studio**

Task 1. Create a data source connection to the My Data Sets repository.

1. Log on as **admin/Education1**, and then click **Administer IBM Cognos content**.
2. Click the **Configuration** tab, and then on the toolbar, click **New Data Source**.
3. In the **Name** box, type **MDS**, and then click **Next**.
4. In the **Type** list, click **My Data Sets Repository**, and then click **Next**.  
You must select My Data Sets Repository as the type, regardless of the format of the database to which you are connecting.
5. Edit the **JDBC URL** to read **jdbc:db2://localhost:50000/MDS**, and then under **Signons**, select the **Password** check box.
6. In the **User ID** box, type **db2admin**, and then in the **Password and Confirm password** boxes, type **Education1**.
7. Click **Test the connection**, and then click **Test**.
8. When the connection is successful, click **Close**, click **Close** again, and then click **Finish**.

The new MDS data source now appears on the Configuration tab. Report Authors can now use My Data Sets to import and report on personal data. You want to test this functionality by importing data from a text file.

## Task 2. Import and publish data.

1. On the toolbar, click **My Area Options**, and then click **My Data Sets**.

You can also access My Data Sets from the IBM Cognos Welcome page.

The My Data Sets page appears. Because this is your first time importing data, the page is empty.

2. On the toolbar, click **Import data** .

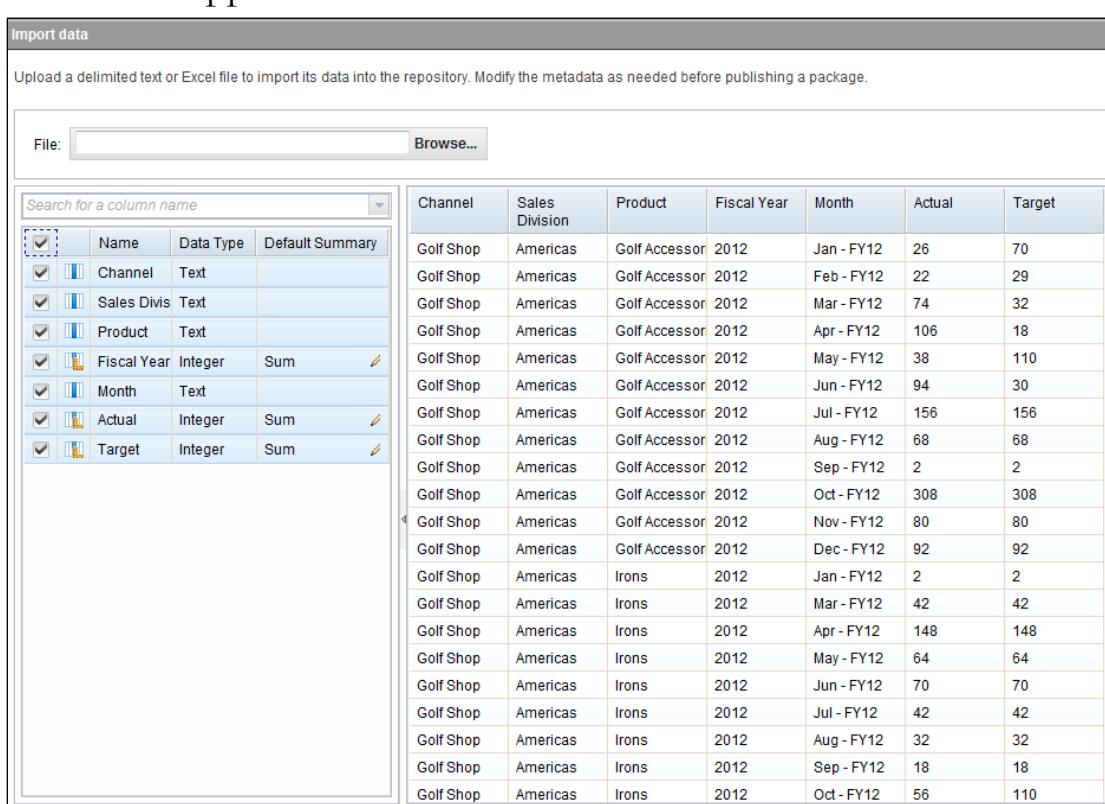
If multiple data sources exist, you are prompted to choose a data source.

Otherwise, the Import Data page appears.

3. On the **Import Data** page, click **Browse**, navigate to

**C:\Program Files (x86)\IBM\cognos\c10\webcontent\samples\datasources\other\profitability**, click **profitability.txt**, and then click **Open**.

The results appear as follows:



The screenshot shows the 'Import data' interface. At the top, there's a file upload area with a 'File:' input field and a 'Browse...' button. Below this is a preview area with a table showing data from 'profitability.txt'. The table has columns: Channel, Sales Division, Product, Fiscal Year, Month, Actual, and Target. The data consists of 20 rows for Golf Shop and Americas, detailing sales figures for various products across different months and years.

Channel	Sales Division	Product	Fiscal Year	Month	Actual	Target
Golf Shop	Americas	Golf Accessor	2012	Jan - FY12	26	70
Golf Shop	Americas	Golf Accessor	2012	Feb - FY12	22	29
Golf Shop	Americas	Golf Accessor	2012	Mar - FY12	74	32
Golf Shop	Americas	Golf Accessor	2012	Apr - FY12	106	18
Golf Shop	Americas	Golf Accessor	2012	May - FY12	38	110
Golf Shop	Americas	Golf Accessor	2012	Jun - FY12	94	30
Golf Shop	Americas	Golf Accessor	2012	Jul - FY12	156	156
Golf Shop	Americas	Golf Accessor	2012	Aug - FY12	68	68
Golf Shop	Americas	Golf Accessor	2012	Sep - FY12	2	2
Golf Shop	Americas	Golf Accessor	2012	Oct - FY12	308	308
Golf Shop	Americas	Golf Accessor	2012	Nov - FY12	80	80
Golf Shop	Americas	Golf Accessor	2012	Dec - FY12	92	92
Golf Shop	Americas	Irons	2012	Jan - FY12	2	2
Golf Shop	Americas	Irons	2012	Mar - FY12	42	42
Golf Shop	Americas	Irons	2012	Apr - FY12	148	148
Golf Shop	Americas	Irons	2012	May - FY12	64	64
Golf Shop	Americas	Irons	2012	Jun - FY12	70	70
Golf Shop	Americas	Irons	2012	Jul - FY12	42	42
Golf Shop	Americas	Irons	2012	Aug - FY12	32	32
Golf Shop	Americas	Irons	2012	Sep - FY12	18	18
Golf Shop	Americas	Irons	2012	Oct - FY12	56	110

Metadata from the file appears on the left, and a preview of the data appears on the right

Here you can decide which columns to include, and determine which columns are attributes and which are facts. The package you publish will produce a simple, relational model. Therefore each column will be imported as a separate dimension, rather than multiple levels of one dimension.

An initial interpretation of the data is made assuming that numeric values are facts. If this is not the case, as with Year in this example which should be an attribute, you can change that here.

You want to exclude the Month column because you do not require that level of granularity.

4. In the left pane, deselect the **Month** check box.

The preview immediately reflects the change and excludes Monthly data.

You want Fiscal Year to be an attribute, not a fact.

5. In the **Fiscal Year** row, in the **Default Summary** column, click **Click to**



**change the value**, change the value to **None**, and then click the empty cell below it in the **Month** column.

The results appear as follows:

	Name	Data Type	Default Summary
<input checked="" type="checkbox"/>	Channel	Text	
<input checked="" type="checkbox"/>	Sales Divis	Text	
<input checked="" type="checkbox"/>	Product	Text	
<input checked="" type="checkbox"/>	Fiscal Year	Integer	None
<input type="checkbox"/>	Month	Text	
<input checked="" type="checkbox"/>	Actual	Integer	Sum
<input checked="" type="checkbox"/>	Target	Integer	Sum

The icon in the Fiscal Year row now indicates that it is an attribute rather than a fact. You are now ready to publish the data. You want the package to appear in My Folders.

6. Click **Publish**, click **My Folders**, and then click **Publish**.

The My Data Sets page now contains the profitability data set and displays information about it, such as the package it produced, when it was last refreshed, and so on.

7. On the toolbar, click **Home**, and then click **My Folders**.

The My Folders tab now contains the package you published called profitability.

8. Click the **profitability** package.

Because this package is new, it does not yet contain any reports. You want to create a simple report from this package in Report Studio.

## Task 3. Create a report from the published package.

1. From the **Launch** menu, click **Report Studio**.
2. Click **Create New**, click **List**, and then click **OK**.

The profitability namespace appears in the Content pane.

3. In the **Source** pane, expand the **profitability** query subject, and then double-click the following items to add them to the list:

- **Sales Division**
- **Channel**
- **Product**
- **Fiscal Year**
- **Actual**
- **Target**

4. Click the **Sales Division** column body, and then click **Group/Ungroup** .
5. Repeat step 4 to group the **Channel**, **Product**, and **Fiscal Year** columns.

6. On the toolbar, click **Run Report**.

The results appear as follows:

Sales Division	Channel	Product	Fiscal Year	Actual	Target
Americas	Department Store	Binoculars	2012	2,290	1,486
			2013	2,397	2,818
		Climbing Accessories	2012	549	360
			2013	591	702
		Cooking Gear	2012	13,873	10,378
			2013	13,241	12,798
		Eyewear	2012	4,069	3,110
			2013	4,174	4,429
		First Aid	2012	669	460
			2013	536	882
		Golf Accessories	2012	347	310
			2013	305	423
		Insect Repellents	2012	12,084	8,402
			2013	14,405	10,409
		Irons	2012	231	206
			2013	206	241
		Knives	2012	7,388	5,490
			2013	6,680	8,822
		Lanterns	2012	15,357	12,338
			2013	16,515	15,539

You have created a report based on the data you imported from a personal file. Now that the data is available through a package, you can use various studios to report on and analyze your data, such as to add a variance calculation to compare targets with actuals.

7. Close **Report Studio** without saving, and log off.

Leave the Log off window open.

## Results:

**You created a data source connection to the My Data Sets database. You then imported data from a tab delimited text file on your C: drive and published the data as a package. Finally you created a simple report from the data in the package using Report Studio.**

## Collaboration Integration with IBM Connections

- Create new activities from the dashboard.
- Collaborate on activities from the dashboard.
- Find, view, and work with activities in IBM Connections.

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You can configure IBM Cognos Business Intelligence and IBM Cognos Workspace to use IBM Connections for collaborative decision-making. Integration with IBM Connections allows business users to collaborate while creating or viewing reports, performing analysis, or monitoring workspaces. Users have access to IBM Connections activities from within IBM Cognos Workspace and to the IBM Connections homepage from within IBM Cognos BI and IBM Cognos Workspace.

## Set Alerts and Watch Rules

- Watch items include:
  - version alerts
  - watch rules
- Receive notification by:
  - email
  - published news items

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Version alerts let you receive automatic email notification when a report has a new saved output.

Watch rules let you receive automatic email notification or post new items on IBM Cognos Connection when numeric data on a report meets specific conditions.

The owner of the report, or a user with set policy enabled, must enable the Watch rule functionality and the new version alert functionality, in the properties of the report.

Email notification requires a valid email address inside your profile.

View your Watch Items from My Area Options.

## Demo 7: Set up Watch Items

### Purpose:

You regularly view the output for Return Items report, but now you want to be automatically notified by email when there is a new output version of this report. In addition, you want to be alerted by both email and a news item when the quantity of wrong product shipped for any department store is greater than 1000.

Before you can add yourself to an alert list for a report, the report owner must enable the alert list. To receive alerts, you must have an email address defined in the My Preferences, Personal tab or in your LDAP security profile (used only in special circumstances). Also, you must belong to the same namespace as the person who schedules the report.

### Task 1. Enable new output versions registration.

1. Log on as **daileyp/Education1**.
2. Click **IBM Cognos content**, and then navigate to **Samples > Models > GO Data Warehouse (analysis) > Report Studio Report Samples**.
3. In the **Actions** column for **Returned Items**, click **Set properties**, click the **Report** tab, and then click **Advanced options**.  
You may have to navigate to the next page to see this report entry.
4. Observe that the **Enable alerts about new versions** check box is selected.  
When this box is selected, the list of available actions for the report will have a new action that allows you to register for alerts about new versions.
5. On the **Set properties** page, click **Close**.
6. On the **IBM Cognos Connection** toolbar, click **My Area Options**, and then click **My Preferences**.
7. Click the **Personal** tab, under **Alerts**, in the **Email** box, type **PDailey@grtd123.com**, and then click **OK**.

## Task 2. Register for alerts for new output versions.

1. In **IBM Cognos Connection**, beside the **Returned Items** report, in the **Actions** column, click **More**.

Alerts have been enabled for this report, so you can see the option to alert you about new versions.

Typically, a user registers for alerts for reports in the Public Folders that they do not own. This way whenever the report is updated, the user is notified.

2. Click **Alert Me About New Versions**.

A message appears stating that the report will be sent to you by email every time a new version becomes available, and that all alerts will be sent to PDAiley@grtd123.com. It also states that you can change this email address by changing your preferences.

You can see that the alert registration information is correct.

3. Click **OK** to close the message box, and then in the **Actions** column, click **More**.

Notice that the list of available actions has changed. Alert Me About New Versions has been replaced with Do Not Alert Me About New Versions.

4. Click **Cancel**, and then log off.

## Task 3. Test the alert.

You will log in as a report author, to save a different version of the report, and then you will see the impact on the consumer who will receive notification of a new version of the report.

1. Log on as **shapirom/Education1**, click **IBM Cognos content**, run the **Returned Items** report at **Samples > Models > GO Data Warehouse (analysis) > Report Studio Report Samples**.
2. In **IBM Cognos Viewer**, on the left, in the From calendar prompt use **Dec 1, 2012**, in the To calendar prompt use **Jan 31, 2013**, and then click **Finish**.
3. On the **IBM Cognos Viewer** toolbar, click **Keep this version**, and then click **Save Report**.  
You will now view the email alert that was generated.
4. On the taskbar, right-click **Internet Explorer**, and then click **Start InPrivate Browsing**.

5. Navigate to <http://vclassbase/mail/pdailey.nsf>, press **Enter**, and then log on as **Phil Dailey/Education1**.
6. In the left pane click **Mail**, and then open the email that contains the **Subject** starting with **A new version of the report**, sent from **mshapiro**.
7. Click **HTML**, and then log on as **daileyp/Education1** if prompted.  
The report opens in a new instance of IBM Cognos Viewer, displaying the new time range that was selected by the report author, and saved as a new version.
8. Close this instance of **IBM Cognos Viewer**.
9. In **IBM Lotus iNotes**, click **Logout**, and then click **Yes**.
10. In the first instance of **IBM Cognos Viewer**, on the **IBM Cognos Viewer** toolbar click **Return**.

#### Task 4. Enable the watch rule setup for a report.

The watch rule is enabled in the properties of the report. You must be the owner of the report to access the advanced properties options, or you must have been granted permission. You are currently logged on as report author who has been given permission to access advanced options for the report.

1. In the **Actions** column for **Returned Items**, click **Set properties**, click the **Report** tab, and then click **Advanced options**.
2. Select the **Enable enhanced user features in saved output versions** check box, and then click **OK**.

#### Task 5. Set up the watch rule.

You also want to be notified by email and post a news item on IBM Cognos Connection when the quantity of wrong product shipped for a department store is greater than 1000 in any new version of the Returned Items report.

1. Beside **Returned Items**, in the **Actions** column, click **View the report output versions for this report**, and then click **HTML**.

IBM Cognos Viewer opens and the report is displayed. When setting up a watch rule it is important to note that a watch rule can only be set up if:

- the output version is in HTML format
- the intersection between two cells is numeric

2. On the **IBM Cognos Viewer** toolbar, click **Watch new versions**.

The only selection available is Alert Me About New Versions, as you (Maxx Shapiro) have not yet set up an alert to be issued with new versions.

3. Click **Alert Me About New Versions**, click **OK** to close the message that appears with the notification information, and then click **Watch new versions**. The watch rule alert is not available in the Watch new versions menu because you did not click on an intersecting cell in the report.
4. In the report, click the intersection of **Wrong product shipped** and **Department Store** as follows:

<b>Return quantity</b>	<b>Department Store</b>
Defective product	1,842
Incomplete product	1,561
Unsatisfactory product	2,237
Wrong product ordered	877
<b>Wrong product shipped</b>	<b>1,754</b>

5. Click **Watch new versions**.
  - The Alert Using New Watch Rule option is now available.
  6. Click **Alert Using New Watch Rule**, and then change the return quantity to **1000**.
- A section of the result appears as follows:

**Specify the rule - Alert Using New Watch Rule**

Specify the type of watch item you want to create and the rule for the alert.

**For the selected context:**

Send an alert when the report 'Returned Items' contains:

Return quantity > (greater than)

7. Click **Next**, and then select the check boxes in the **Alert** column.
- To quickly select all alerts, click the Alert column heading check box.
- You selected an email notification be sent and a news item be posted on IBM Cognos Connection whenever the return item quantity is greater than 1000.
- You want to verify that the email subject and the location of the news item post are correct.
- Next to **Send the report by email**, click **Edit the email options**, and verify that the subject line displays the correct information.
- You can edit the subject line and type and format body text.

9. Click **OK**.
10. Next to **Publish a news item**, click **Edit the email options**, and ensure that the **News list location** is **Public Folders > Samples > Models > GO Data Warehouse (analysis) > Report Studio Report Samples**.  
You could have selected My Folders, but others would not be able to access this report.
11. Click **OK**, click **Next**, and then click **Finish**.
12. Click **Watch new versions**, and then point to **Alert when 'Return quantity' > 1000**.  
The watch rule, and the ability to modify or delete it, appears in the Watch new versions menu.
13. Close the **IBM Cognos Viewer** window, on the **View report output versions** page click **Close**, click **My Area Options**, and then click **My Watch Items**.  
The Alerts tab shows the reports for which you registered a new output version alert.
14. Click the **Rules** tab.  
The Rules tab shows the watch rules you set up for any report.  
You can remove the alerts, and modify the watch rules from this page.

## Task 6. Test the watch items.

1. Click **Return** on the toolbar.
2. Beside **Returned Items**, in the **Actions** column, click **Run with options**, and then click **Run**.
3. Use the prompt values of **Dec 1, 2012** and **Jan 31, 2013**, and then click **Finish**.
4. Click **Keep this version**, and then click **Save Report**.
5. On the taskbar, right-click **Internet Explorer**, and then click **Start InPrivate Browsing**.
6. Navigate to <http://vclassbase/mail/mshapiro.nsf>, and then log on as **Max Shapiro/Education1**.

7. In the left pane click **Mail**.

Two email notifications (click Refresh if you do not see all emails) were sent to you because:

- when the returned quantity meets the watch rule condition, you receive an
  - notification
  - email

A third email notification was also sent to you because a new output version has been saved.

8. Right-click the email that contains the attachment, point to **Show**, and then click **Preview on Bottom**.

9. Click the attachment (link), and then click **OK** to continue.

The report opens in HTML format, in Internet Explorer, but not in IBM Cognos Viewer.

10. Close **Internet Explorer** (the instance that contains the report you just opened), and then in **Lotus iNotes**, click **Logout**.

11. Click **Yes**.

Disregard any Internet Explorer messages that may display.

12. In **IBM Cognos Viewer**, on the toolbar click **Return**.

The news item appears as follows:



13. Click **Report: 'Returned Items' - 'Return quantity' > 1000**.

The news item link opens the report in IBM Cognos Viewer.

Optionally, you can log on with daileyp/Education1 credentials to ensure that other users can also see the news item.

14. Log off.

Leave the Log off window open for the next demo.

**Results:**

**You registered for an alert every time the Return Items report has a new output version, and you created a watch rule that notifies you both by email and by a news item any time the wrong product shipped for a department store is greater than 1000.**

**Business Analytics software**

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## Create Dynamic Dashboards

- Create a dynamic dashboard on a portal page that:
  - provides customized content
  - uses portlets that communicate with each other by passing information from one portlet to another

The diagram illustrates a 'Portal Page' structure. On the left, there are three separate boxes representing portlets: 'IBM Cognos Navigator' (blue), 'IBM Cognos Search' (red), and 'RSS Viewer' (yellow). These three boxes are grouped together within a larger rectangular frame labeled 'Portal Page' with a red arrow pointing to it. The entire assembly is set against a white background with a small decorative graphic of interconnected hexagons in the bottom right corner.

A portlet is a component of a portal Web page that provides access to a specific information source or application, such as news updates or search engine.

You can add IBM Cognos Content and IBM Cognos Utility portlets to your portal pages. You can also add any other portlets that have been imported by your administrator.

After you create the page, you can edit it to modify its content, specify its layout and style, and set access permissions.

Portal pages can be included as part of your IBM Cognos Connection tabs.

## Demo 8: Create a Dynamic Dashboard (Optional)

### Purpose:

You are a member of the Consumer role, and you want to create a portal page to add content that is relevant to you. You will personalize the page by adding it as a new tab on your portal for quick access. You will also change its appearance and add IBM Cognos navigation and viewing portlets that communicate with each other.

### Task 1. Create a page.

1. Log on as **bauer1/Education1**.
2. Click **IBM Cognos content**, and then on the toolbar, click **New Page** .
3. In the **Name** box, type **Resources**, under **Location**, click **Select My Folders**, and then click **Next**.
4. Under **Number of columns**, click **2 columns** .

The portlets will be divided between two columns.

5. Change the **Column width**:
  - left column width to **30%**
  - right column width to **70%**

### Task 2. Add portlets in the new page.

1. Under the left column, click **Add**, and then click **IBM Cognos Utility**.  
You can add any of the Utility portlets to your page. If you want to know what each Utility portlet does, in the Actions column, click the View this portlet  icon for the specific portlet name, and then click the question mark . The online help will display for that portlet.
2. Select the **Bookmarks Viewer** check box, and then click **Add** (yellow arrow).
3. Under **Available entries** in the navigation path at the top left, click **Portlets**, to navigate back one level.
4. Click **IBM Cognos Content**, add **IBM Cognos Navigator** and **IBM Cognos Search** to the **Selected entries** pane, and then click **OK**.

5. Under the right column, click **Add**, click **IBM Cognos Content**, add **IBM Cognos Viewer** to the **Selected entries** pane, and then click **OK**.

A section of the result appears as follows:



You added the portlets that you need to navigate IBM Cognos BI folders and search for IBM Cognos BI content. You also added a portlet that you will modify so that it will communicate with Navigator and Search. You will add this page as a tab.

6. On the **Set columns and layout** page, click **Next**.
7. In the **Title** box, type **Resources**, and then click **Next**.

8. Select the **Add this page to the portal tabs** and **View the page** check boxes, and then click **Finish**.

A section of the result appears as follows:

The screenshot shows the 'Resources' page in IBM Cognos Connection. It features four main tabs arranged vertically: 'Bookmarks Viewer', 'IBM Cognos Viewer', 'IBM Cognos Navigator', and 'IBM Cognos Search'. Each tab has its own title bar with standard window controls. The 'IBM Cognos Navigator' tab is expanded, showing a table with columns for 'Name' and 'Actions'. Under 'Name', there are entries for 'Public Folders' and 'My Folders'. The 'Actions' column contains icons for each entry. The 'IBM Cognos Search' tab also has an expanded search interface with fields for 'Search' and 'Advanced' options.

Notice that the Resources page appears as a portal tab along with Public Folders and My Folders. It will also appear as an entry in My Folders and as one of your portal tabs in My Preferences.

As with any entry in IBM Cognos Connection, you can modify the properties. You can also add a page as a portal tab by clicking the Add tabs link from the

Tab menu located at the top left of the portal. You can access the contents of the portal page by clicking the entry in My Folders or by clicking the tab itself.

### Task 3. Edit the Bookmarks Viewer.

You want to edit the Bookmarks Viewer to contain a link to access the IBM Cognos web site directly from the portlet.

1. In the **Bookmarks Viewer** title bar, click . The Set the properties page lets you select the language for the portlet, add a title, URLs, and determine the behavior of the links.
2. In the **Title** box, type **Web Links**.
3. In the first **URLs** box, type <http://www.ibm.com/cognos>, and then in the **Aliases** box type **IBM Cognos site**.

4. Leave the default selections for all other items, and then click **OK**.  
The IBM Cognos site link is now added to the bookmarks area, which is now titled Web Links.

## Task 4. Edit the IBM Cognos Viewer.

You want IBM Cognos Viewer to have a destination channel so that it can receive actions from other portlets.

1. In the **IBM Cognos Viewer** title bar, click **Edit**.
2. In the **Channel** box, type **IBMCognosViewer**.  
The channel name will be used by other portlets as a destination channel.  
Spaces are not permitted in the channel name.
3. Click **OK**.

## Task 5. Edit the IBM Cognos Navigator.

You want to enable communication between IBM Cognos Viewer and IBM Cognos Navigator so that results of the navigation are displayed in the viewer channel.

1. In the **IBM Cognos Navigator** title bar, click **Edit**.
2. Under **Open links**, select **In a destination portlet**, and then in the box, type **IBMCognosViewer**.

A section of the result appears as follows:

<b>Open links:</b>
<input type="radio"/> In a new browser window <input type="radio"/> In the current window <input type="radio"/> In a named HTML frame: <input type="text"/>
<input checked="" type="radio"/> In a destination portlet: The channel name given to the IBM Cognos Viewer. <input type="text" value="IBMCognosViewer"/>

By providing a destination portlet channel, the result of clicking an entry in IBM Cognos Navigator will appear in IBM Cognos Viewer. In Task 4, you set up the viewer portlet so that its channel name is also IBMCognosViewer.

3. Under **Features to expose in the Navigator views**, modify the settings so that all entries appear in **Maximized mode** only.

A section of the result appears as follows:

Name	Normal mode	Maximized mode
Parent in path	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Actions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Additional information	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Number of columns in a details view	2 ▾	4 ▾

The Actions column will no longer be visible in the portlet, as you have deselected it here.

4. Near the bottom of the page, in the **Separators** list, click **Alternating backgrounds**, and then click **OK**.

The background will appear in alternating colors.

## Task 6. Edit the IBM Cognos Search portlet.

You want to enable communication between IBM Cognos Viewer and IBM Cognos Search so that results of the search item are displayed in the viewer channel.

1. In the **IBM Cognos Search** title bar, click **Edit**.
2. Under **Open links**, select **In a destination portlet**, and then in the box, type **IBMCognosViewer**.
3. Click **OK**.

## Task 7. Test communication between portlets.

1. In **IBM Cognos Navigator**, navigate to **Public Folders > Samples > Models > GO Sales (query) > Report Studio Report Samples**, and then click **PDF Page Properties**.

The report successfully displays in the IBM Cognos Viewer portlet.

2. In **IBM Cognos Search**, in the **Search** list, click **Name** field.
3. In the **Search** box, type **Return**, and then click **Search** .

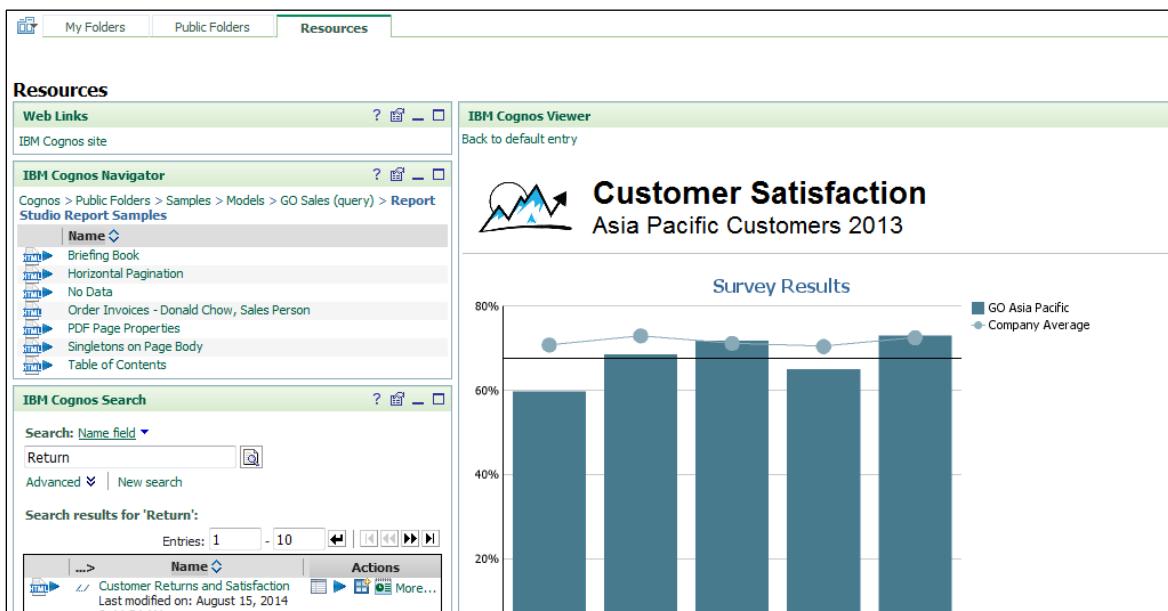
The search result lists all the entries that have the word Return.

4. From the search results, click **Customer Returns and Satisfaction**.

The report successfully displays in the IBM Cognos Viewer portlet.

## Task 8. Examine portal editing properties.

1. At the top right of the portal page, click **Edit** , and then click the **Page Style** tab.  
You can hide the edit buttons, and/or the title bars. You can also hide the borders.
2. Under **Portlet Style**, select the **Hide title bars** check box.  
The Hide Edit buttons on the title bar check box is automatically selected after the Hide title bars check box is selected.
3. Click **OK**.  
The titles of the portlets and the edit buttons are no longer visible on the page. This is beneficial if you are creating portal pages in Public Folders and will be granting limited permissions. Because you are creating the page in My Folders, you do not want to keep this change.
4. Edit the page to show the title bars and Edit buttons again.



Leave IBM Cognos Connection open for the next demo.

### Results:

**You created a new portal page. You personalized it by adding it as a new tab on your portal and you changed its appearance. You also added some IBM Cognos navigation and viewing portlets to it.**

## Create a Multi-page Dashboard

- Include contents of a folder on a portal page separated by tabs.
- View tabs vertically or horizontally on your page.

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The advantage of a multi-page dashboard is that you can quickly view the contents of reports, normally contained in a folder, all on one page.

If output versions exist, the tabs automatically display the most recently saved output version.

## Demo 9: Create a Multi-page Dashboard (Optional)

### Purpose:

To view reports more easily, you want to create a multi-page dashboard for folders to which you frequently navigate.

### Task 1. Create the portal page.

1. Click the **My Folders** tab, and then on the toolbar click **New Page**.
2. Create the page with the following properties:
  - Name: **Multi-page Dashboard**
  - Location: **My Folders**
  - Columns: **1 column, 100% width**
  - Portlets: **Dashboard > Multi-page**
  - Action after closing the wizard: **Add this page to the portal tabs**



### Task 2. Edit the properties of the page.

1. Click the **Multi-page Dashboard** tab, and then click **Edit** (for the portlet not the page, it is in Multi-page).
2. Under **Folder**, click **Select an entry**, and then in the navigation path (at the top) click **Cognos**.
3. Click **My Folders**, select **Daily Sales Reports**, and then click **OK**.
4. On the **Set the properties** page, click **OK** to return to the portal page.

The Daily Sales Reports folder contains two shortcuts to reports in Public Folders. Each shortcut appears on a horizontal tab. If the folder Daily Sales Reports had sub-folders in addition to the shortcuts, then the multi-page dashboard would show two levels of tabs.

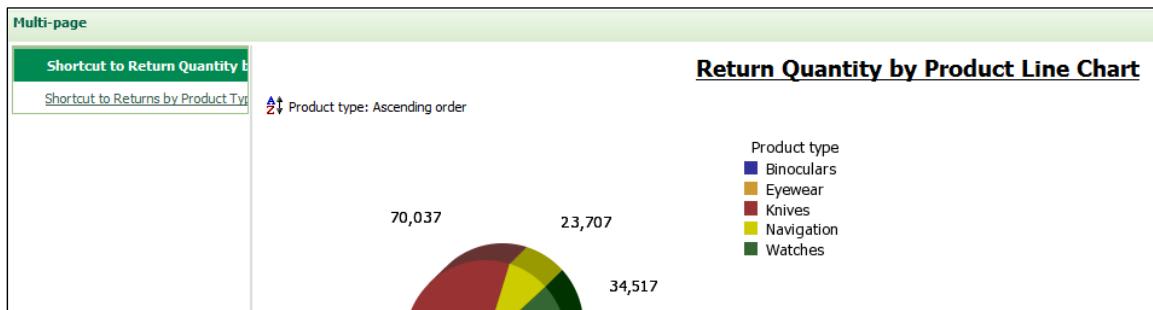
5. Click each tab.

Shortcuts that have output versions show the latest saved output, otherwise, the report runs. You now want to see how this dashboard would look with vertical tabs.

## Task 3. Create a vertical tabs page.

- On the **Multi-page** toolbar click **Edit**, under **View Options > Display Style**, click **Tab pane (vertical)**, and then click **OK**.

A section of the result appears as follows:



The list of reports contained in the folder appears as a list in the left pane. When a report name is highlighted on the left it is selected and the report appears in the right pane.

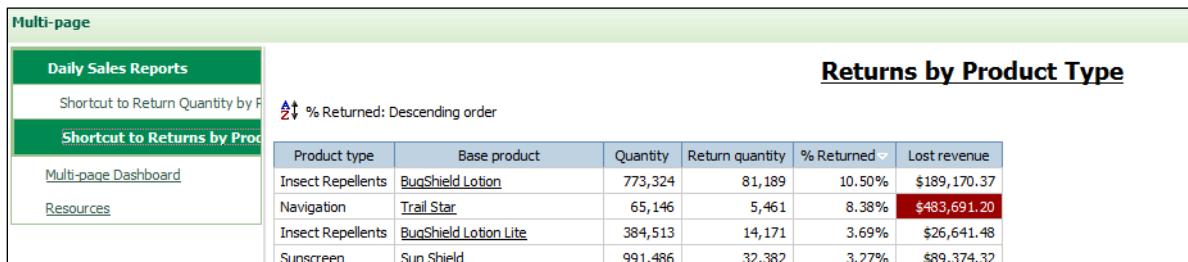
- Click each vertical tab and notice how the report is displayed for each vertical tab.

## Task 4. Create a vertical tabs page for My Folders.

You would like to have this dashboard set up for all the contents of My Folders instead of just the Daily Sales Reports folder.

- On the **Multi-page** toolbar click **Edit**, and then under **Folder**, click **Select an entry**.
- In the navigation path click **Cognos**, and then select **My Folders**.
- On the **Navigate the folders** page, click **OK**, and then on the **Set the properties** page click **OK**.
- On your new multi-page dashboard, click **Shortcut to Returns by Product Type**.

A section of the result appears as follows:

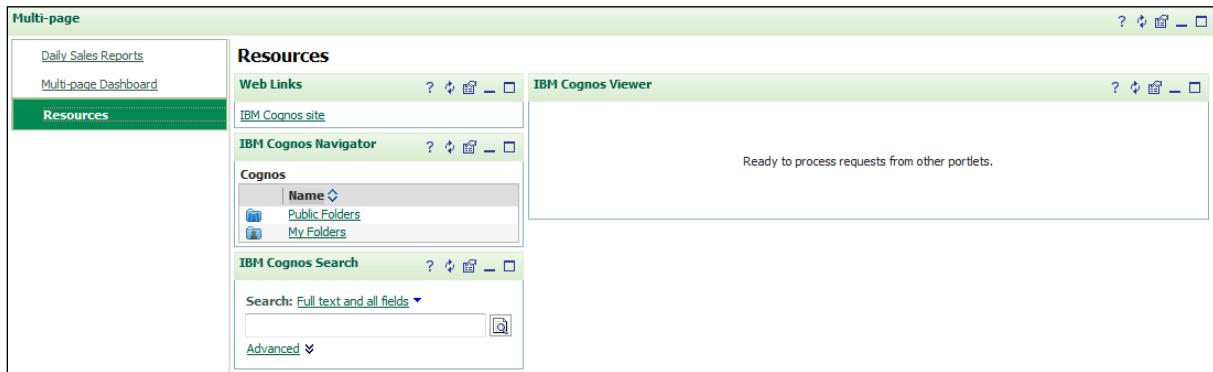


Notice the different layers for your vertical tabs.

5. On the left, click **Resources**.

The Resources portal page and its portlets are now embedded within the multi-page dashboard.

A section of the result appears as follows:



6. Log off.

Leave the Log on again window open for the next demo.

### Results:

**You created a multi-page dashboard for folders to which you frequently navigate.**

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## Use Global Filters, Drill Up and Drill Down in Portlets

The filter focuses the report and pie chart based on the common parameter: Year

Drill on Year updates the pie chart report. Drill on Product Line updates the bar chart report.

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Global filters let reports with common parameters communicate between portlets on a page. You can use a prompt, for example, to filter data for other reports on a page.

Data items from the same package are passed between the reports to enable simultaneous drill up or drill down. For example, if you drill on one report, it can affect other reports on the page.

Specify if you want to enable communication with other portlets for:

- prompt values
- drill down and drill up
- report-based drill through

## Demo 10: Use Global Filters, Drill Up and Drill Down in Portlets (Optional)

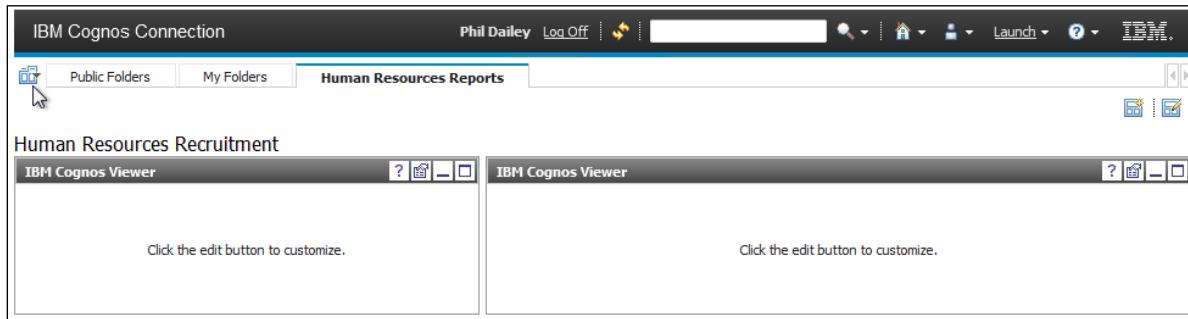
You want to create two pages with portlets that show specific reports that you run frequently. You want to include a global filter to filter the reports and compare the results on one page. You also want to enable drill up and drill down on one report, and let the drill action update other reports on the page.

Task 1. Create the first portal page.

1. Log on as **daileyp/Education1**.
2. Click **IBM Cognos content**, and then click the **My Folders** tab.
3. Create a portal page called **Human Resources Reports** with the following properties:
  - two columns,
  - left column width: **40%**
  - right column width: **60%**
  - each column contains one **IBM Cognos Content > IBM Cognos Viewer** portlet
4. Click **Finish**.
5. On the **My Folders** tab, in the **Actions** column for the **Human Resources Reports** portal page, click **Add to my portal tabs** .
6. Beside **Human Resources Reports**, in the **Actions** column, click **Set properties**.
7. Click the **Page Style** tab, in the **Title** box, type **Human Resources Recruitment**, and then click **OK**.

8. Click the **Human Resources Reports** tab.

A section of the result appears as follows:



## Task 2. Add a prompt report and edit the properties.

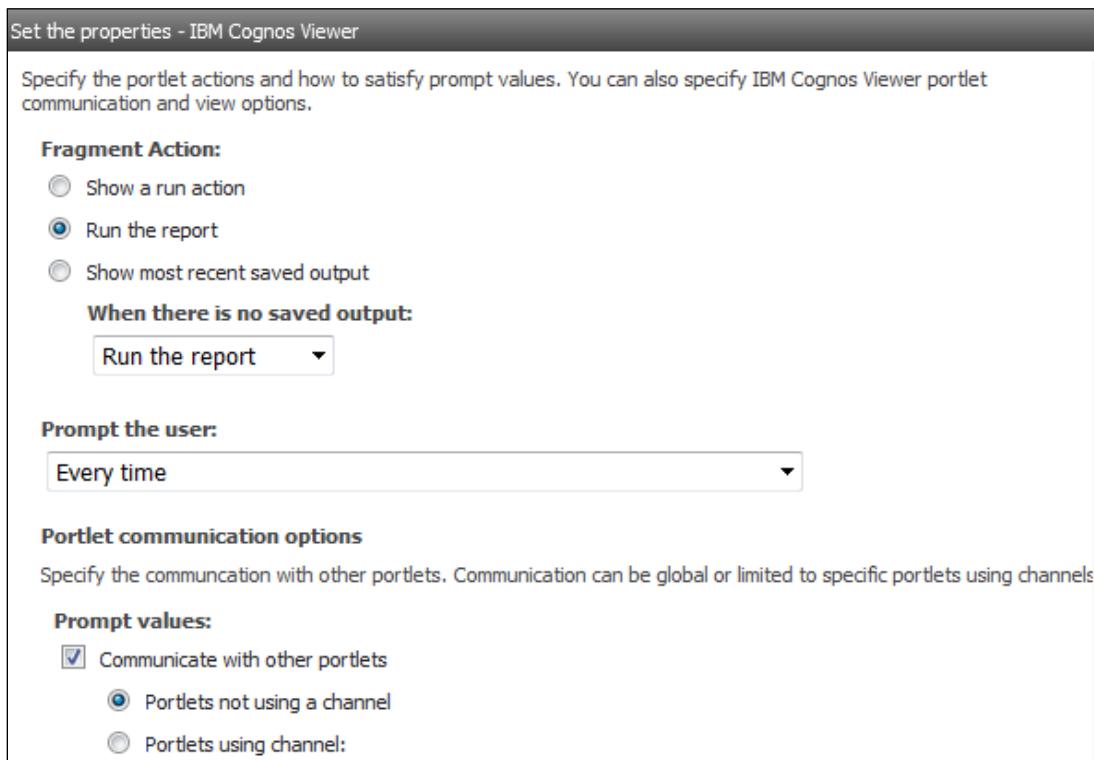
1. In the left portlet, click **Edit** to modify the properties of the portlet.
2. Under **Entry**, click **Select an entry**.

The Select an entry lets you add a permanent entry to the portlet. In the previous demos you did not click any entries because you wanted the portlets to display different information depending on your search or navigation requirements.

3. Navigate to **Public Folders > Samples > Models > GO Data Warehouse (analysis) > Report Studio Report Samples**, select **Positions to fill**, and then click **OK**.
4. To the right of the entry, click **Report Properties**.  
You want to edit the communication properties for the prompt in this report, such as filtering with other portlets.
5. Under **Fragment Action**, select **Run the report**.
6. From the **Prompt the user** list, click **Every time**.

7. Under **Portlet communication options > Prompt values**, select the **Communicate with other portlets** check box, and then leave the default selection, **Portlets not using a channel**.

A section of the result appears as follows:



The prompt values chosen from this report will affect all portlets that are not using a channel.

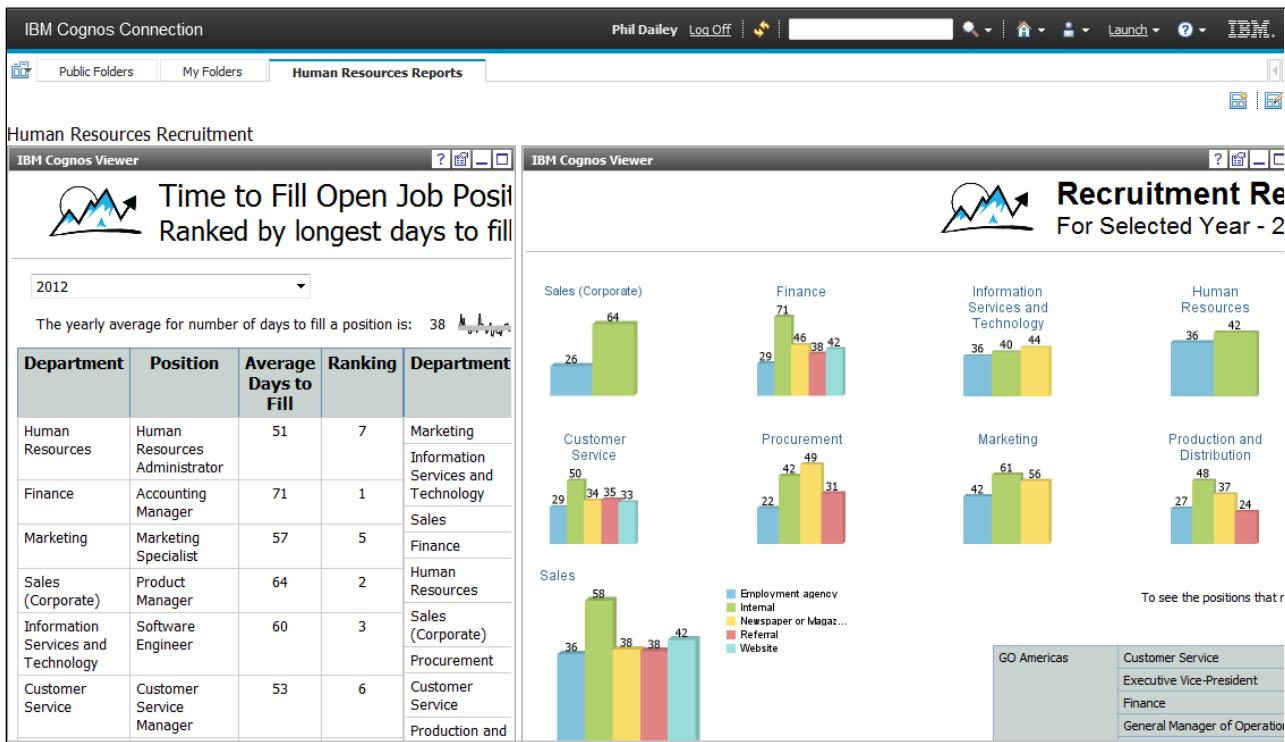
8. Click **OK**, and then click **OK** again.

The report appears in the left portlet.

### Task 3. Add another report and edit the properties.

1. Edit the properties of the right portlet.
2. Under **Entry**, click **Select an entry**, and then navigate to **Public Folders > Samples > Models > GO Data Warehouse (analysis) > Report Studio Report Samples**.
3. Click **Recruitment Report**, and then click **OK**.

4. Next to the entry, click **Report Properties**, and then edit the properties as follows:
  - Fragment Action: **Run the report**
  - Prompt the user: **Only when required parameter values are missing**
  - Prompt values: **Communicate with other portlets/Portlets not using a channel**
5. Click **OK** to close each of the open pages.  
The report is displayed in the right portal.  
You want to test the communication between the reports.
6. In the prompt at the top of the report in the left column, select the year 2012.  
Both reports change to reflect values for 2012. A section of the result appears as follows:



The communication is successful because the Year prompt in the Positions to fill report passed the parameter Year to the Year prompt in the Recruitment Report, and filtered that report to only show information for 2012, the selected year.

If your Recruitment Report did not update immediately, click Refresh on the toolbar.

## Task 4. Create another portal page.

1. Click the **My Folders** tab, and then create a portal page called **Product Reports** with the following attributes:
  - two columns
  - left column width: **50%**
  - right column width: **50%**
  - each column contains one **IBM Cognos Content > IBM Cognos Viewer** portlet
2. In **My Folders**, in the **Actions** column for the **Product Reports** portal page, click **Add to my portal tabs**.
3. Beside **Product Reports**, in the **Actions** column, click **Set properties**.
4. Click the **Page Style** tab, in the **Title** box, type **Product Returns**, and then click **OK**.
5. Click the **Product Reports** tab.  
Two portlets are available for content.

## Task 5. Add a report and edit the properties to set portal communication for drill up and drill down.

1. In the left portlet, click **Edit** to modify the properties of the portlet.
2. Under **Entry**, click **Select an entry**, and then navigate to **Public Folders > Samples > Models > GO Data Warehouse (analysis) > Report Studio Report Samples**.
3. Click **Customer Returns and Satisfaction**, and then click **OK**.
4. Next to the entry, click **Report Properties**.
5. Under **Fragment Action**, select **Run the report**.

The reports that you will use on this portal page have drill functionality that you would like to have communicated between the portlets.

6. Under **Portlet communication options**, under **Drill down and drill up**, select the **Communicate with other portlets on the page** check box, leave the default setting to communicate with portlets not using a channel, and then click **OK** to close each open page.

This portlet will now accept drill functionality from any portlet that is not using a channel.

The report appears in the left portlet.

## Task 6. Add another report and edit the properties.

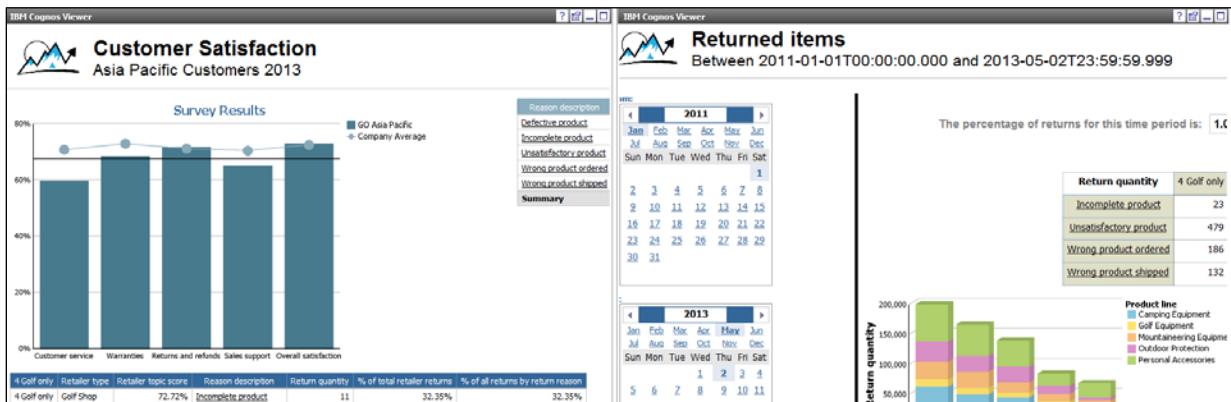
1. Edit the properties of the right portlet.
2. Under **Entry**, click **Select an entry**, and then navigate to **Public Folders > Samples > Models > GO Data Warehouse (analysis) > Report Studio Report Samples**.
3. Click **Returned Items**, and then click **OK**.  
You will have to navigate to the last page to find Returned Items.
4. Next to the entry, click **Report Properties**, and then edit the properties as follows:
  - Fragment Action: **Run the report**
  - Prompt the user: **Only when required parameter values are missing**
  - Drill down and drill up: **Communicate with other portlets on the page/Portlets not using a channel**
5. Click **OK** to close each of the open pages.

The report appears in the right portal.

You want to test the communication between the reports.

- On the report in the left column, in the **Retailer name** column of the list below the chart, click **4 Golf only**.

A section of the result appears as follows:



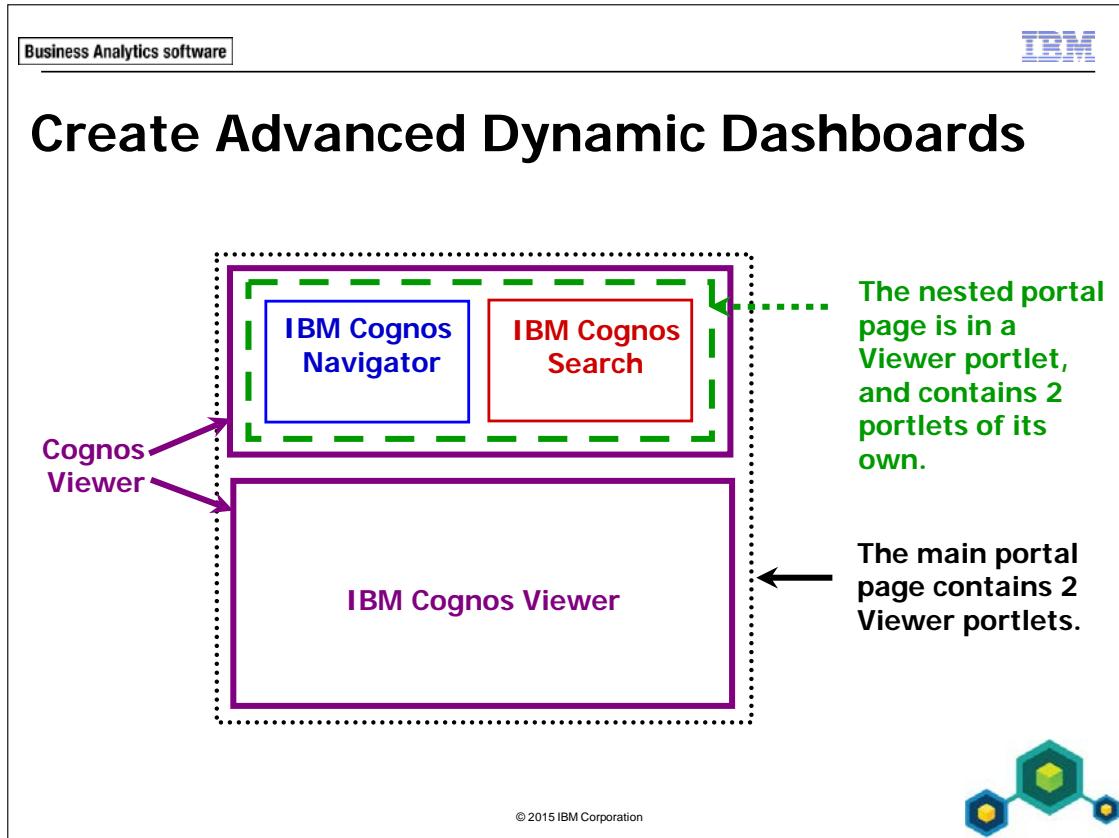
The communication is successful because the drill down on 4 Golf only occurred in both portals. In the left report, 4 Golf only data is displayed below the chart. In the right report, 4 Golf only is displayed in the top list for return quantity data.

- Log off.

Leave the Log on again window open for the next demo.

## Results:

You created two pages with portlets that show commonly used reports. You included a global filter to dynamically filter the reports on each page, and you enabled drill up and drill down so that drilling on the one report updated another report to reflect the same drill level.



You can create portlets that allow you to display a variety of content. You can also create portal pages within a portal page structure to provide further organization of the content. This provides the user with many options in presenting critical information.

## Access Shared Content

- Depending on your role, you can secure your content by setting access permission for the entries.
- Use access permissions to share your content, such as reports and portal pages, with other users.
- Your content:
  - inherits the permissions of the folder it is saved in
  - can be copied and shared
  - can be secured to select users, groups, or roles

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Access permission allows the author to secure shared content. There are five different access properties that can be assigned; Read, Write, Execute, Set Policy, and Traverse. To access pages created by other users, you must save the pages to a shared location such as Public Folders.

Users who have access to these portal pages can choose to view them, edit them (if they have write access), or even save a local copy to their personal folder. Any modification made to the page by the owner of the page is circulated out to all users.

Pages can be configured so that users only have read access, to only view the page. The administrator can save pages in a shared folder, and assign security permission, so that users can see a subset of those pages.

Access permission is covered in the IBM Cognos BI Overview appendix in this course.

## Demo 11: Access a Shared Page (Optional)

### Purpose:

In this demo you will log on as a members of different roles. You are an Report Administrator and you want to create a shared location where Consumers can contribute. As member of only the Consumer role, you want to give access to content only to yourself and Jeff Waters.

### Task 1. Create a shared folder.

1. Log on as **shapirom/Education1**.  
Max Shapiro is a report author.
2. Click **IBM Cognos content**, and then create a folder, on the **Public Folders** tab, called **Consumer Share Space**.
3. Beside **Consumer Share Space**, in the **Actions** column, click **Set properties**, click the **Permissions** tab, and then select the **Override the access permissions acquired from the parent entry** check box.  
The new folder inherits the permissions of the parent folder, Public Folders. Consumers have limited permissions in Public Folders. You want override the default permissions for the Consumer Share Space folder.
4. Select the **Consumers** check box, and then apply **Write** permissions.

A section of the result appears as follows:

Name	Permissions	Grant	Deny
Analysis Users		<input checked="" type="checkbox"/> Read	<input checked="" type="checkbox"/>
Authors		<input checked="" type="checkbox"/> Write	<input checked="" type="checkbox"/>
Consumers		<input checked="" type="checkbox"/> Execute	<input checked="" type="checkbox"/>
Controller Administrators		<input type="checkbox"/> Set Policy	<input type="checkbox"/>
Controller Users		<input checked="" type="checkbox"/> Traverse	<input checked="" type="checkbox"/>

5. Click **OK** to close the **Set properties** page, and then log off.

## Task 2. Contribute to the shared folder and grant permissions.

As a member of the Consumers role, Phil Dailey (daileyp), you want to make a copy of one of your portal pages and paste it in the shared folder located in Public Folders. You then want to grant permissions to the folder to selected users.

1. Log on as **daileyp/Education1**.
2. Click **IBM Cognos content**, click the **My Folders** tab, and then select the **Product Reports** check box.
3. On the toolbar, click **Copy**, click the **Public Folders** tab, and then click the **Consumer Share Space** folder.
4. On the toolbar, click **Paste**.

Without Consumers having write privileges to this folder (Task 1), Phil Dailey could not have pasted content directly into the Consumer Share Space folder. Phil does not have permission to paste to the root Public Folders.

You want to grant specific users access to your portal page that was added to the Consumer Share Space folder.

5. Beside **Product Reports**, in the **Actions** column, click **Set properties**.
6. Click the **Permissions** tab.
7. Select the **Override the access permissions acquired from the parent entry** check box.
8. Select the check box to the left of **Name** to select all roles, and then under the list click **Remove**.

At this point, you want to restrict access to a specific user.

9. Under the empty list click **Add**, click **LDAP**, and then click **People**.
10. Select the **Show users in the list** check box, select the **Jeff Waters (watersj)** check box, and then click **Add** (yellow arrow).
11. Click **OK**, select the **Jeff Waters** check box, and then under **Grant**, select the **Read, Write, Execute, and Traverse** check boxes.

Phil Dailey can grant access to the Product Reports portal page because he is the owner of the entry.

12. Click **OK**, and then log off.

## Task 3. Test the permissions.

Test the permissions by logging on as Jeff Waters.

1. Log on as **watersj/Education1**, click **IBM Cognos content**, and then navigate to **Public Folders > Consumer Share Space**.

A section of the result appears as follows:

The screenshot shows a user interface for managing public folders. At the top, there is a navigation bar with two tabs: "Public Folders" (which is selected, indicated by a blue border) and "My Folders". Below the navigation bar, the path "Public Folders > Consumer Share Space" is displayed. The main content area contains a table with two rows. The first row has columns for selection (checkbox), name, and a dropdown arrow. The second row shows a checkbox followed by a small icon and the text "Product Reports".

Jeff Waters can view the page shared inside the Consumer Share Space folder.

2. Click **Product Reports**, and then on one of the portlet toolbars, click **Edit** to be able to modify a portlet setting.

Jeff Waters can access the shared page, use the global filters, and modify the portlet settings.

3. Click **Cancel** to close the **Set the properties** page.
4. Log off, and then log on as **meyerst/Education1**.

5. Click **IBM Cognos content**, and then click the **Consumer Share Space** folder.

A section of the result appears as follows:

The screenshot shows the IBM Cognos Connection interface. At the top, there's a navigation bar with 'IBM Cognos Connection', the user name 'Tim Meyers', and a 'Log Off' link. To the right of the user name are various icons for search, home, and help. Below the navigation bar, there are two tabs: 'Public Folders' (which is selected) and 'My Folders'. Underneath these tabs, the path 'Public Folders > Consumer Share Space' is shown. The main content area is a grid table with three columns: 'Name', 'Modified', and 'Actions'. A message 'No entries.' is centered in the grid. Above the grid, there are several icons for file operations like copy, paste, delete, and search. At the bottom of the interface, there are more navigation icons.

Tim Meyers can access the shared folder as a member of the Consumer role. However, because he does not have access to the Product Reports portal page, the entry is not listed in the shared folder.

Tim has permissions to other functions in the Consumer Share Space folder, such as the copy and paste function, just like any other member of the Consumer role. He does not have permissions to the portal page because Phil Dailey granted access only to Jeff Waters.

6. Log off, and then close **Internet Explorer**.

### **Results:**

**You logged on as different users to test permissions. As an Author, Frank Bretton, you created a folder in Public Folders and granted write access to the Consumers role. As a member of only the Consumers role, Donald Chow, you copied a portal page from My Folders and pasted it into the shared folder. You also granted a specific user, Bart Scott, access to your portal page. You tested the results with two different Consumer logins.**

# Summary

- At the end of this module, you should be able to:
  - identify where consumers access IBM Cognos BI content
  - use published reports
  - drill through to related data
  - run reports with options
  - add comments in saved output
  - personalize how content appears
  - manage human tasks
  - import personal data
  - collaborate with IBM Connections
  - set alerts and watch rules
  - access shared content

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# Drill-Through Definitions

IBM Cognos BI 10.2.2

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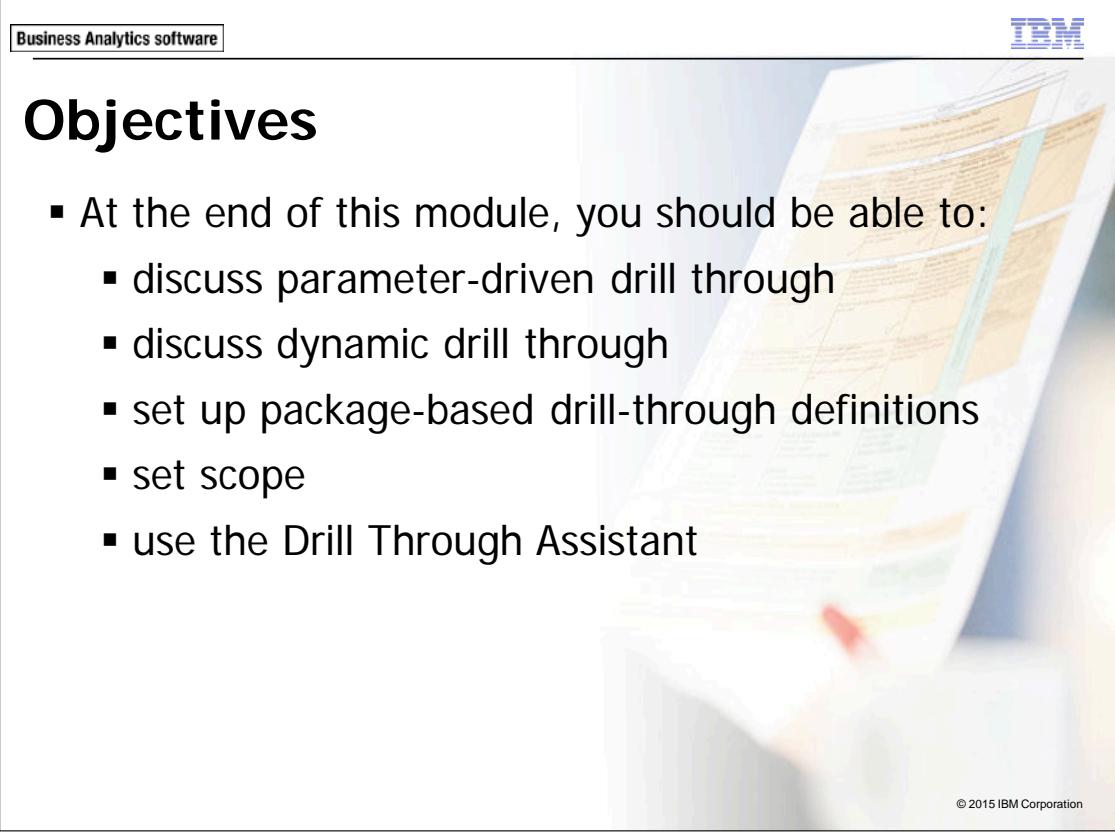


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# Objectives

- At the end of this module, you should be able to:
  - discuss parameter-driven drill through
  - discuss dynamic drill through
  - set up package-based drill-through definitions
  - set scope
  - use the Drill Through Assistant

A faint background image of a document page with some text and a small red circular stamp or mark near the bottom right corner.

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**Let Users Navigate to Related Data in IBM Cognos**

**Crosstab Source Report**

Revenue	2011	2012
E-mail	44,318,886.43	23,701,042.57

**Click the data item to drill through**

**Target List Report**

Order method	Product line	Year	Revenue
E-mail	Camping Equipment	2012	2,501,787.15
	Golf Equipment	2012	1,182,984.1

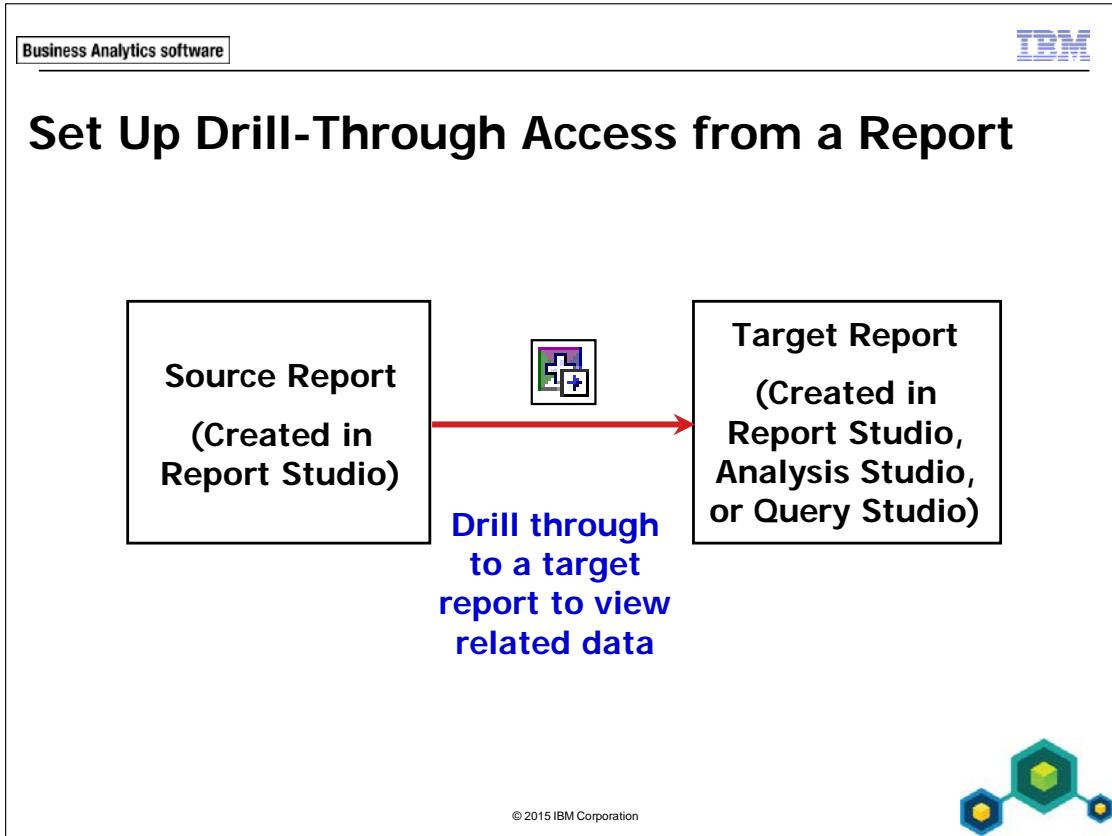
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Drill-through access lets users navigate between reports to view related data to help them answer business questions.

In IBM Cognos, report authors can set up drill-through access to and from Report Studio reports, Query Studio queries, Workspace Advanced queries, and Analysis Studio analyses using dimensional and relational data sources.

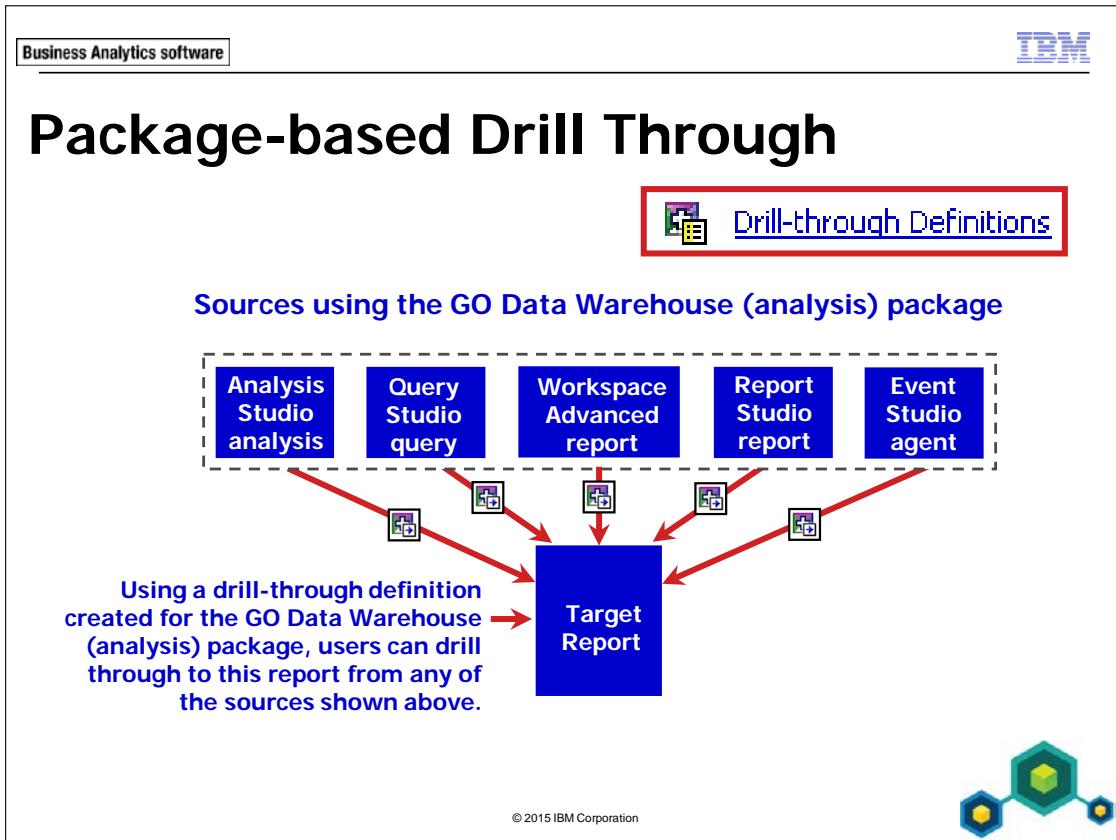
It is also possible to set up drill-through access to IBM Cognos targets from third party sources and to third party targets from Cognos sources. Setting up drill-through access to and from third-party sources and targets can be accomplished using URL requests or by using the Software Development Kit.



You can set up drill-through access from reports that are created from relational data sources or dimensional data sources.

You can let users navigate to target reports, queries, and analyses created from both relational and dimensional data sources.

You must create the target report before you can set up drill-through access.



To let users navigate to a specific target report from reports, analyses, and queries created using a package, you can create a drill-through definition for the package.

The source reports do not need to be created when you create the drill-through definition. This lets you set up drill-through access to the target report, and then later, report authors can create as many source reports as required.

Each package drill-through definition can have only one target. You can create multiple drill-through definitions for a package.

In the slide example, a drill-through definition has been created for the GO Data Warehouse (analysis) package. Users can drill through to the target report from a variety of sources created using the same package.

You can set permissions properties for target reports to determine which users will be able to open them when they attempt to drill through. You can also set permissions properties for drill-through definitions to determine which users have access to these drill-through definitions.

In IBM Cognos (v10.2), targets can be reports or packages.

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## Specify the Values Passed to Target Parameters

**Report-based drill-through definition**

Name	Type	Required	Multi-select	Method	Value	Property to Pass
Product type	String	✓		Pass data item value	Product type	(Default)
year	Number	✓		Pass data item value	Year	(Default)

Parameters in the target report

Values passed from the source report

Properties passed from the source report

**Parameter mapping:**  
Map a source metadata item to each specified target parameter so values can be passed to the target when the drill-through action occurs.

Target parameter	Type	Required	Multi-select	Source metadata item	Source metadata item properties
Product line	Text	✓		[Sales (query)].[Products].[Product line]	(Default)

Entries: 1 - 1

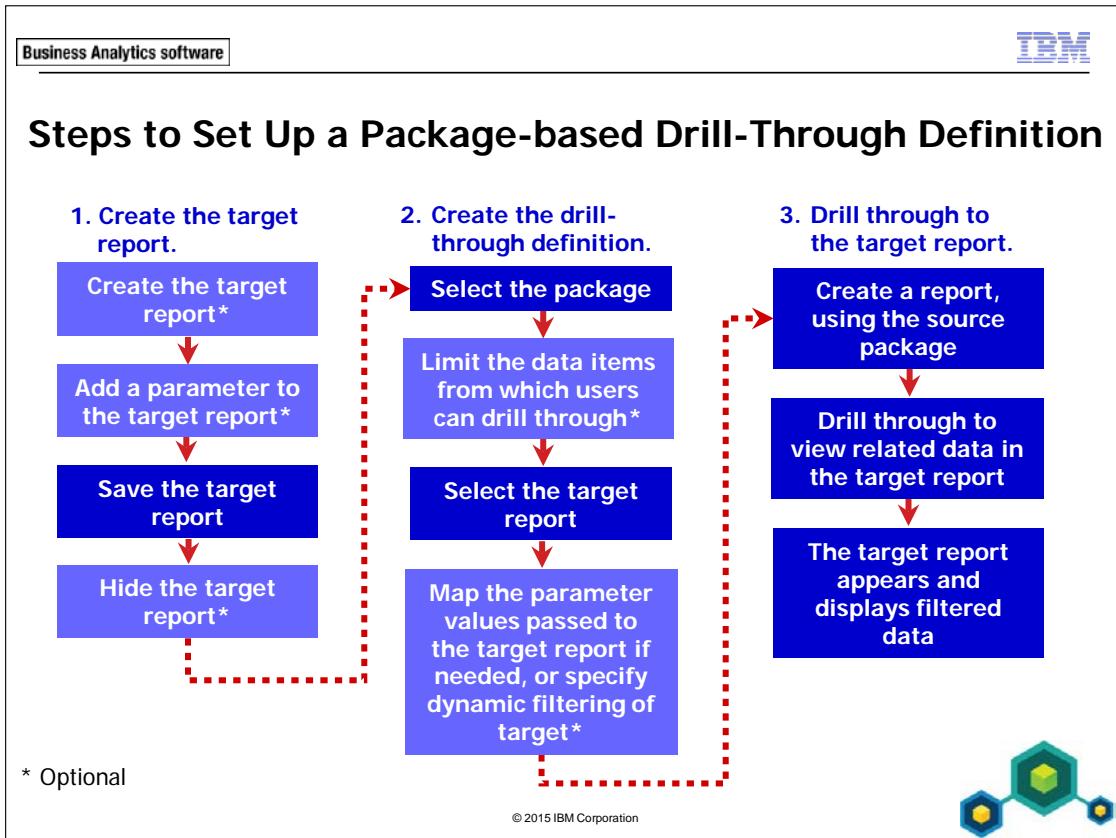
**Package-based drill-through definition**

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When you set up drill-through access, you must map the values that the source report will pass to the target parameters.

If you do not specify which values to pass to target parameters, then when users drill through they will be prompted to select values for any required target parameters.

When dealing with dimensional sources, you can also select which property of the member you would like to pass to the target report (for example: Member Unique Name, Member Caption, or Business Key). It is important to know which values are conformed between the source report and the target report data sources.



Before you can set up drill-through access for a package, you must have a target report created.

Next, create a drill-through definition that lets users navigate to the target report from reports created using the package.

To let users drill through from a Report Studio report using a package drill-through definition, you must enable this drill behavior in the source report.

## Limit the Items that Users Can Drill Through From

- Package drill-through definitions control where users can start drill through in source reports.
- To do this, set a data item in the source package as the scope of the drill-through definition.

**Product type values**

Quantity	2010	2011	2012
Cooking Gear	2,905,120	3,501,329	4,060,635
Eyewear	4,066,410	5,180,407	6,354,258
First Aid	450,978	186,317	133,692
Golf Accessories	613,311	791,935	963,013
Insect Repellents	2,864,588	1,806,770	808,715

**With scope set to Product type, users can drill through to the target report from any of the fact cells in this report.**

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If a target report contains one parameter, it makes sense to limit the scope of the drill-through definition to the item that must be passed to this parameter. This ensures that users will not be prompted to select a parameter value when they drill through.

Once you have set the scope of a drill-through definition to a particular data item, users can drill through from a cell in source reports only if its context includes this item.

If you do not set the scope of a drill-through definition for a package, users can drill through from any cell in any report created using the package.

It is useful to set the scope of drill-through access to limit the number of possible target reports users see when they drill through. If you have created many drill-through definitions for a package and you do not set the scope, users may be presented with an overwhelming number of possible target reports when they drill through.

When you create a drill-through definition for a relational package, set the scope to a specific fact/measure or query item, such as the Revenue fact from the Sales fact query subject or the Product type query item from the Products query subject.

When you create drill-through definitions for OLAP or dimensionally modeled relational (DMR) packages, you can set the scope to a dimension, a level in the dimension, or a measure.

## Measure-based Scope

- Set scope based on a measure in a drill-through definition.
- The source report must use the selected measure in order to drill through to target report.

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When defining a drill-through definition, the user has a choice to set the scope on the target report.

If you base scope on a measure, then the target report that is specified in the drill-through definition will only appear on the Related Links list of a source report if the selected measure is in the source report.

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## Drill Through Assistant

- The Drill Through Assistant lets you see the values that are passed from the source report to the target report.

Source → Target

values

Drill Through Assistant

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IBM Cognos includes a debugging functionality, called the Drill Through Assistant, that you can use to troubleshoot your drill-through definitions created in IBM Cognos Connection. It can also help you understand how the drill-through functionality works, especially across different types of data sources.

The Drill Through Assistant is especially useful for Report Authors and Report Administrators. By default, no user, group, or role can use the Drill Through Assistant until the capability is granted.

For more information about the Drill Through Assistant see the *IBM Cognos Business Intelligence Version 10.2.2 Administration and Security Guide*.

## Demo 1: Set Up Drill-Through Access for a Package

To complete the demos in this module, you should be using the B5A55\_1567ABCD image.

Before doing this demo, in the BI environment, in the **Taskbar**, click **Services** to ensure that the following services are started:

- Apache Directory Server - default
- DB2-DB2COPY1 - DB2
- DB2DAS - DB2DAS00
- World Wide Web Publishing Service
- Lotus Domino Server (CProgramFilesx86IBMLotusDominodata)
- IBM Cognos

### Purpose:

**You have been asked to create a drill-through definition to let users navigate to a detailed product line sales report that is created from reports using the GO Data Warehouse (query) package. To let users focus on specific areas of interest, the target report will only display data for the product line and retailer country from which users drill through. Finally, you will enable the Drill Through Assistant and view the values that are passed.**

### Task 1. Create the target report.

In this task you will open and run an existing report.

1. Open **Internet Explorer**, navigate to <http://localhost:88/ibmcognos>, and then log on as **hirschb/Education1**.
1. Click **IBM Cognos content**, navigate to **Samples > Models > GO Data Warehouse (query) > Report Studio Report Samples**, and then beside **Total Revenue by Country**, in the **Actions** column, click **Open with Report Studio** .

2. On the toolbar, click **Run Report** .

3. At the prompt click **Select all**, and then click **Finish**.

This is a crosstab report and chart based on a relational model that provides information on region, country, retailer name, and revenue for product lines.

A section of the result appears as follows (the order in your result may be different):

<b>Revenue</b>		<b>Camping Equipment</b>	<b>Golf Equipment</b>	<b>Mountaineer Equipment</b>
Americas	Brazil	Ao ar livre	2,554,044.39	
		Ar fresco	2,551,975.28	3,882,36
		Armazém do esporte	1,145,731.4	1,485,312.43

4. Close **IBM Cognos Viewer**.

## Task 2. Add parameters and save the report.

You will add parameters so that this report will only display data for the Country or Countries and the Product line from which the users drill through.

1. In the report layout, click the crosstab container selector  at the top left of the crosstab, and then in the **Properties** pane, ensure that **Crosstab** is displayed.

 Properties -  Crosstab

2. On the toolbar, click **Filters** , click **Edit Filters**, and then click **Add** .
3. In the **Detail Filter Expression** box, in the **Available Components** pane,  click the **Data Items**  tab.
4. Drag **Product line** to the **Expression Definition** pane, and type the remainder of the expression so that the result appears as follows:  
**[Product line]=?Product line?**
5. Click **Validate** , in the **Product line** prompt click **Camping Equipment**, in the **Retailer country** prompt click **Australia**, and then click **OK** to close the **Prompt** box.
6. After validating with no errors, click **OK** to close the **Detail Filter Expression** box, and then click **OK** to close the **Filters** box.
7. On the toolbar, click **Run Report**.

8. In the **Retailer country** prompt, click **Australia** and then click **Finish**.
9. In the **Product line** prompt, click **Camping Equipment**, and then click **OK**.  
A section of the result appears as follows:

<b>Revenue</b>		<b>Camping Equipment</b>	<b>Total (Product line)</b>
Asia Pacific	Australia	Beach Beds Pty Ltd.	15,788,255.05
		Black Stump Camping Supplies	1,262,948.49
		Can't Beat The Bush Supplies	1,049,058.84
		Gone Bush Supplies	1,107,959.92
		Harbour Pty Ltd.	1,352,640.02

Only data for Australia and Camping Equipment is displayed.

10. Close **IBM Cognos Viewer**.
11. In **Report Studio**, from the **File** menu, click **Save As**, and then click **My Folders**.
12. In the **Name** box, type **Total Revenue by Country and Product Line - Target**, click **Save**, and then minimize **Report Studio**.

### Task 3. Create a drill-through definition for the GO Data Warehouse (query) package.

You will create a drill-through definition so that users can drill through to this report from reports that were created with the GO Data Warehouse (query) package.

1. In **IBM Cognos Connection**, click **Home**.
2. On the toolbar, click **Launch**, and then click **Drill-through Definitions**.
3. Navigate to **Samples > Models**, and then click **GO Data Warehouse (query)**.
4. On the toolbar, click **New Drill-through Definition** .
5. In the **Name** box, type **Total Revenue by Country Definition**, and then click **Next**.

It is important to create a logical name for each drill-through definition that describes the contents of the drill-through target report. This helps organize drill-through definitions.

Your target report has a Product line parameter; therefore, you want to limit the scope of this drill-through definition so that users can drill through only from cells in source reports that have Product line as their context.

6. Under Scope, click Set the scope, expand Sales and Marketing (query) > Sales (query) > Products, click Product line, and then click OK.
7. Under Target, click Set the target.
8. In the navigation path, click Cognos, and then click MyFolders.
9. Select the Total Revenue by Country and Product Line - Target option, click OK, and then click Next.

The Specify the target details page appears and displays the Product line parameter from the Total Revenue by Country and Product Line - Target report as follows:

Target parameter	Type	Required	Multi-select	Source metadata item	Source metadata item properties
Product line	Text	✓		map to metadata 	(Default) 
Retailer country	Text	✓	✓	map to metadata 	(Default) 

10. For the Product line parameter, in the Source metadata item column, click  Set the value for Product line.
11. Expand Sales and Marketing (query) > Sales (query) > Products, click the Product line query item, and then click OK.
12. On the Specify the target details page, click Finish.

#### Task 4. Test the drill-through definition.

You will test this drill-through definition by drilling through from a report created in IBM Cognos Workspace Advanced using the GO Data Warehouse (query) package.

1. From the Launch menu, click Cognos Workspace Advanced, navigate to Samples > Models, and then click GO Data Warehouse (query).
2. Click Create New, click List, and then click OK.
3. In the right-pane, expand Sales and Marketing (query) > Sales (query) > Retailers, right-click Retailer country, and then click Insert.
4. In the Source pane, expand the Products query subject, right-click Product line, and then click Insert.
5. Expand Sales fact, right-click Revenue, and then click Insert.

6. On the toolbar, click **Run Report**.

A section of the result appears as follows:

Retailer country	Product line	Revenue
Australia	Camping Equipment	41,935,932.19
Australia	Golf Equipment	19,079,556.43
Australia	Mountaineering Equipment	13,933,120.06

7. In the report, in the **Camping Equipment** row for **Australia**, right-click the revenue cell **41,935,932.19**, point to **Go To**, and then click **Related Links**.

8. Click **View passed source values**.

A section of the result appears as follows:

The screenshot shows the 'Available links:' section with a link to 'Total Revenue by Country Definition'. Below it is the 'Passed source values:' section, which includes a table for 'Package-based Drill-through access' with a package search path: /content/folder[@name='Samples']/folder[@name='Models']/package[@name='GO Data Warehouse (query)']. The 'Selection context' table lists items like Revenue, Retailer country, and Product line, along with their display and use values.

Item	Display value	Use value
Revenue	41,935,932.19	41935932.19
Retailer country	Australia	Australia
Product line	Camping Equipment	Camping Equipment

You can see the items and values that are passed. If you want, you can click Total Revenue by Country Definition, to view the target report.

For further troubleshooting, you can click the More link. The information found there is typically sent to customer support for investigation.

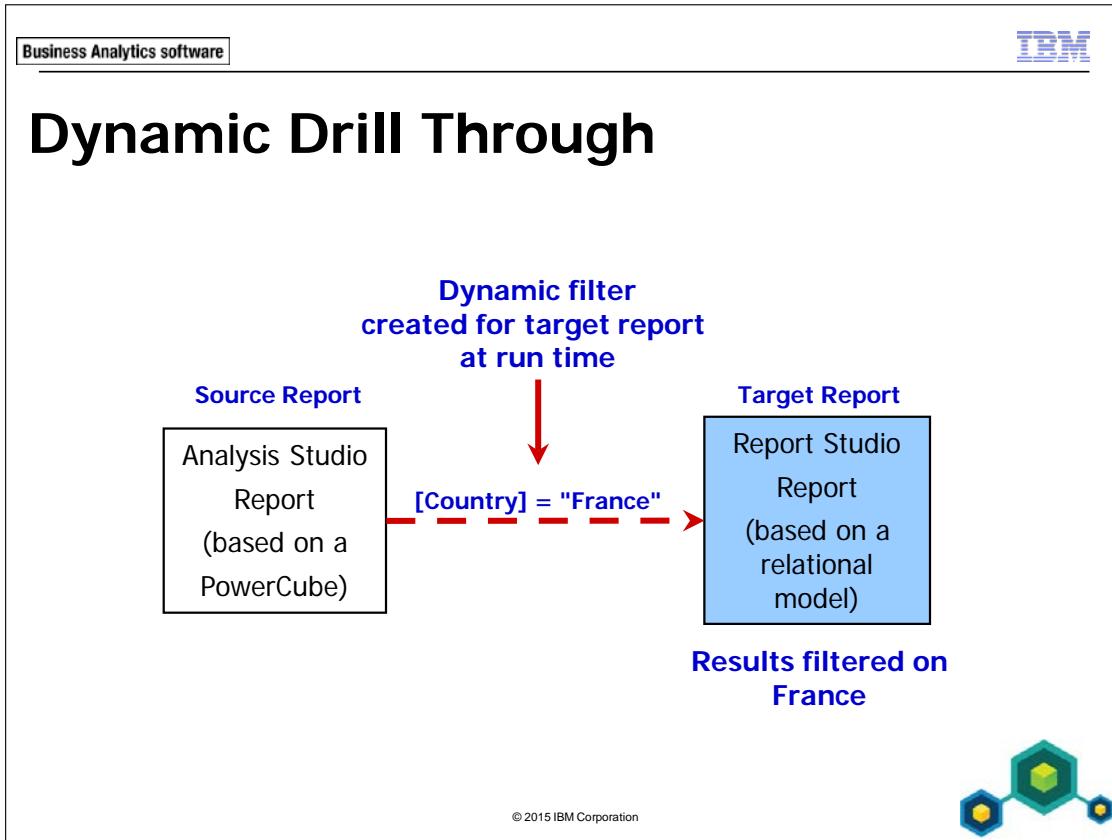
9. Click **Cancel**, and then close **IBM Cognos Viewer**.

10. On the toolbar click **Save**, and then navigate to **My Folders**.

11. In the **Name** box, type **Total Revenue by Country and Product Line - Source**, and then click **Save**.  
This report will be used in the next demo.
12. Close **IBM Cognos Workspace Advanced**, and then close **Report Studio**.  
Leave Branka Hirsch logged on, in Drill-through Definitions.

**Results:**

You created a drill-through definition for the GO Data Warehouse (query) package to let users drill through to a target report containing detailed information about sales of each product line. To let users focus on specific areas of interest, you set up drill-through access so that when users drill through, they will see details for only the product line and retailer country that they are interested in. Finally, you enabled the Drill Through Assistant and viewed the values that were passed.



Dynamic filtering eliminates the need for pre-authored drill-through prompts and parameters previously required for drill-through reports.

Dynamic drill through simplifies the process of authoring reports for drill through and allows administrators to create reliable drill-through definitions between any reports provided they have common items with conformed values.

You can use dynamic drill through alone, or combine with parameterized drill through when reports expect parameters. Non-parameterized items would be filtered dynamically, whereas the parameterized items would be predefined.

## Dynamic Drill Through – Matching Criteria

- Dynamic drill through matches source model item names to either:
  - target model item name
  - target report data item name
- No match, source item is ignored.

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First, IBM Cognos tries to match model item names. This is the most reliable match since column names may be renamed during the authoring process of potential target reports.

For example, if both the source and target reports had items called Product line, renaming Product line in the target report to something else would still work since the model names match.

When the model names do not match, then the target report data item name must match that of the source report.

If no match is found for the model or data item name, then the item is ignored for the drill-through.

## Demo 2: Configure Dynamic Drill Through and Set Measure Scope

### Purpose:

You have been asked to configure a package to enable dynamic drill-through from source reports based on a package to a target report that provides revenue details.

In addition, you will also set the scope of the target report to be available only if the source report contains the Planned revenue measure.

### Task 1. Examine the target report.

You will open an existing report in Report Studio, remove existing filters, and then save the report with a different name.

1. From the **Launch** menu, click **IBM Cognos Connection**, click **My Folders**, and then beside **Total Revenue by Country and Product line - Target**, in the **Actions** column, click **Open with Report Studio**.

This is the target crosstab report created in the previous demo.

2. In the report layout, click the crosstab container selector  at the top left of the crosstab, and then in the **Properties** pane, ensure that **Crosstab** is displayed.
3. On the toolbar, click **Filters**, and then click **Remove all Filters**.
4. On the toolbar, click **Run Report**, at the prompt click **Select all**, and then click **Finish**.
5. Click **Page down** to advance through the report.

Notice that all data is returned for each of the data items on the report (region country, retailer name, and product line).

6. Close **IBM Cognos Viewer**.
7. From the **File** menu, click **Save As**, navigate to **My Folders**, and then save the report as **Total Revenue by Country - Target**.
8. Minimize **Report Studio**.

## Task 2. Create a drill-through definition.

You will create a drill-through definition with dynamic filtering, and use it to drill through to the target report, and then you will identify a filter error.

1. In **IBM Cognos Connection**, from the **Launch** menu, click **Drill-through Definitions**.
2. Navigate to **Drill-through Definitions > Public Folders > Samples\_PowerCube > Cubes**, and then click **Sales and Marketing (cube)**.
3. On the toolbar, click **New Drill-through Definition**, in the **Name** box, type **Revenue Details Definition**, and then click **Next**.

For now, you will not set any scope on this drill-through definition. Users will be allowed to drill through on any level in any dimension. Later you will restrict the scope based on a measure.

4. On the **Specify a scope and target** page, in the **Target** section click **Set the target**, and then navigate to **Cognos > My Folders**.
5. Select the **Total Revenue by Country - Target** report, and then click **OK**.
6. On the **Specify a scope and target** page, click **Next**, and then in the **Action** list, click **Run the report using dynamic filtering**.

Notice that there are no parameters under Parameter mapping because the target report has no parameters. If the target report did have parameters, you would need to map those parameters, but could still leverage dynamic filtering on other common, non-parameterized items. In other words, you can combine the two methods if required.

7. On the **Specify the target details** page, click **Finish**.
8. On the toolbar, click **Home** to return to **IBM Cognos Connection**.
9. Navigate to **Samples\_PowerCube > Cubes > Sales and Marketing (cube) > Report Studio Report Samples**, and then beside **Top Retailers by Country**, in the **Actions** column, click **Open with Report Studio**.
10. On the toolbar, click **Run Report**, when prompted to make a selection of retailers click **Select all**, and then click **Finish**.
11. In **IBM Cognos Viewer**, right-click the intersection of **Netherlands/Extra Sport** (rows) and **Prior YTD/Camping Equipment** (columns), point to **Go To**, and then click **Related Links**.

The Revenue Details Definition is displayed.

12. Maximize the window, and then click **View passed source values**.

A section of the result appears as follows:

Selection context		
Item	Display value	Use value
Revenue	4,071,999.30	[sales_and_marketing].[Measures].[Revenue]
top 10	Extra Sport	[sales_and_marketing].[Retailers].[Retailers].[Retailer name]->:[PC].[@MEMBER].[6846]
Retailer country	Netherlands	[sales_and_marketing].[Retailers].[Retailers].[Retailer country]->:[PC].[@MEMBER].[90010]
Product Set	Camping Equipment	[sales_and_marketing].[Products].[Products].[Product line]->:[PC].[@MEMBER].[991]
Time Set	Prior YTD	[sales_and_marketing].[Time].[Prior YTD].[Prior YTD]->:[PC].[@MEMBER].[Prior YTD]

You can see the data items used, their display values, and the values that are used to filter the target report. The Use value may be converted at run time depending on the source and target report data sources. For example, if the source report is based on a PowerCube and the target report is based on a relational model, then the member unique name (MUN) value from the source report may be converted to a string representation of the member caption in order to conform to the relational data value. Be aware that one of the use values being passed is Retailer name (such as Extra Sport).

13. In the **Available links** section, click the **Revenue Details Definition** link.

A section of the report appears as follows:

Revenue		Camping Equipment	Total (Product line)
Northern Europe	Netherlands	Beter Buitenleven	12,289,976.23
		Cornelius' buitensport	1,251,721.79
		Eurobal	1,185,078.65

The source and target reports have country, retailer name and product line in common, yet the report is only filtered on country and product line.

The item names must match. In this case the source item name does not match the target item name. The use value for the item from the source report is Retailer name, as seen with the View passed source values feature. The value for the item from the target report is Retailer name (multiscript), not Retailer name.

14. Close all **IBM Cognos Viewer** windows, and leave **Report Studio** open.

## Task 3. Fix target report and retest.

You will need to verify the item name in the target report, and retest the drill-through.

1. In **Report Studio**, open the **My Folders >Total Revenue by Country - Target** report (do not save changes in the **Top Retailers by Country** report), in the crosstab, click **<#Retailer name (multiscript)#>** to select it. Notice that the name does not match the item name in the cube. In the relational source (this report) it is called **Retailer name (multiscript)**; in the cube source report it is called **Retailer name**.
2. In the **Properties** pane, under **Data Item**, change the **Name** property to **Retailer name**, and then save the report.
3. In **Report Studio**, open the **Public Folders > Samples\_PowerCube > Cubes > Sales and Marketing (cube) > Report Studio Report Samples > Top Retailers by Country** source report.
4. On the **Report Studio** toolbar, click **Run Report**, when prompted to make a selection of retailers click **Select all**, and then click **Finish**.
5. In **IBM Cognos Viewer**, right-click the intersection of **Netherlands/Extra Sport** (rows) and **Prior YTD/Camping Equipment** (columns), point to **Go To**, and then click **Related Links**.
6. Under **Available links**, click the **Revenue Details Definition** link.

A section of the report appears as follows:

<b>Revenue</b>			<b>Camping Equipment</b>	<b>Total (Product line)</b>
<b>Northern Europe</b>	<b>Netherlands</b>	<b>Extra Sport</b>	<b>15,734,395.66</b>	<b>15,734,395.66</b>
		<b>Total (Retailer country)</b>	<b>15,734,395.66</b>	<b>15,734,395.66</b>

The report is now filtered on country, retailer name and product line.

7. Close the instance of **IBM Cognos Viewer** with the **Total Revenue by Country - Target** report, and leave the other **IBM Cognos Viewer** instance open.

## Task 4. Set measure scope.

You will now only permit drill through for this definition when the source report includes the Planned revenue measure.

1. In **IBM Cognos Connection**, from the **Launch** menu, click **Drill-through Definitions**.
2. In the navigation path, navigate to **Public Folders > Samples\_PowerCube > Cubes > Sales and Marketing (cube)**.
3. Beside **Revenue Details Definition**, in the **Actions** column, click **Set properties**.
4. Click the **Target** tab, and then under **Scope**, click **Set the scope**.
5. Expand **Measures**, and then click **Planned revenue**.
6. Click **OK** to close the **Set the scope** page, and then click **OK** to close the **Set properties** page.
7. In **IBM Cognos Viewer**, in the **Top Retailers by Country** report, right-click the intersection of **Netherlands/Extra Sport** (rows) and **Prior YTD/Camping Equipment** (columns), point to **Go To**, and then click **Related Links**.

The Revenue Details Definition link no longer appears because planned revenue is not in the analysis.

8. Click **Cancel**, and then close **IBM Cognos Viewer**.
9. In **Report Studio**, open the **Public Folders > Samples\_PowerCube > Cubes > Sales and Marketing (cube) > Report Studio Report Samples > Actual vs. Planned Revenue** report, and then run the report.
10. At the **pMethod** prompt click **Web**, at the **Year** prompt click **2011**, and then click **OK**.

This source report has planned revenue as a measure.

11. Right-click the first data cell in the **Planned revenue column** (1,211,045.58), point to **Go To**, and then click **Related Links**.  
The Revenue Details Definition link is now available, due to Planned revenue being available in the source report.
12. Click **Cancel**, close all instances of **IBM Cognos Viewer** and **Report Studio**, and then in **IBM Cognos Connection**, log off.

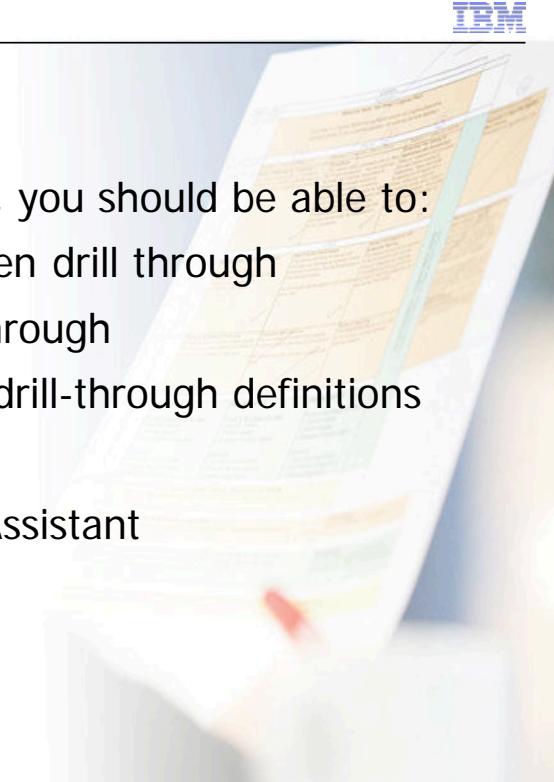
**Results:**

**By configuring a dynamic drill-through definition and ensuring that the common item names in the source and target reports matched, you were able to achieve a dynamic drill-through.**

**You also ensured that the target report would only be available if the source report contained the Planned revenue measure.**

## Summary

- At the end of this module, you should be able to:
  - discuss parameter-driven drill through
  - discuss dynamic drill through
  - set up package-based drill-through definitions
  - set scope
  - use the Drill Through Assistant



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## Workshop 1: Configure Dynamic Drill Through

Consumers using the Sales and Marketing (cube) package for analysis would like to review actual and planned revenue for order methods, using the Actual vs. Planned Revenue report, and be able to get details on lost revenue for specific products displayed in the report. The GO Data Warehouse (analysis) package has lost revenue information and can be used to provide the details consumers require.

A list report has been created based on the GO Data Warehouse (analysis) package that retrieves the following items: Product type, Product, Quantity, Return quantity, % Returned, and Lost revenue. The report is called Returns by Product Type and is located in the Public Folders\Samples\Models\GO Data Warehouse (analysis)\Query Studio Report Samples folder. This will provide a starting point for your target report.

As Branka Hirsch, the report administrator, you will create a drill-through definition called Returns by Product Type Definition that allows consumers to drill through from the Sales and Marketing (cube) package to the target report. Consumers should be able to drill through any report in the package only if the Product type level is available. To accomplish this, you will need to:

- set the scope in the drill-through definition at the Product type level
- ensure that all item names match between the source report and the target report
- create parameterized drill through that will dynamically filter the target report

You will save the target report as Returns by Product Type - Target report, to keep the original sample report unchanged.

You will save the source report as Actual vs. Planned Revenue - Source, to keep the original sample report unchanged.

For more information about where to work and the workshop results, refer to the Tasks and Results section that follows. If you need more information to complete a task, refer to earlier demos for detailed steps.

## Workshop 1: Tasks and Results

### Task 1. Examine the target report.

- Log on as **hirschb/Education1**.
- Open **IBM Cognos Workspace Advanced** (click **Author business reports**) using the **GO Data Warehouse (analysis)** package from **Public Folders > Samples > Models**.
- Open existing **Returns by Product Type** report from **GO Data Warehouse (analysis) > Query Studio Report Samples**.

Notice the first two columns are Product type and Base product.

This report provides information about product quantities sold, product returns, and lost revenue.

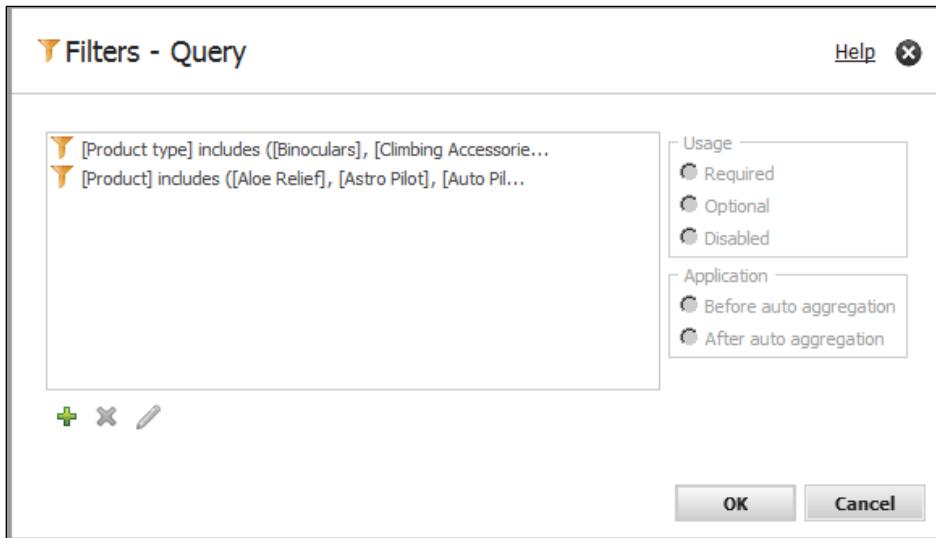
- Save as **Returns by Product Type - Target** in **My Folders**.

### Task 2. Add parameters to the report.

- **Filter > Edit Filters > Add**
  - **Custom based on data item: Product type:**
  - Prompt for values
  - Select all product types

- Filter > Edit Filters > Add
  - Combined
  - Create filter on **Product**
  - Prompt for values
  - Select all products

The results appear as follows:



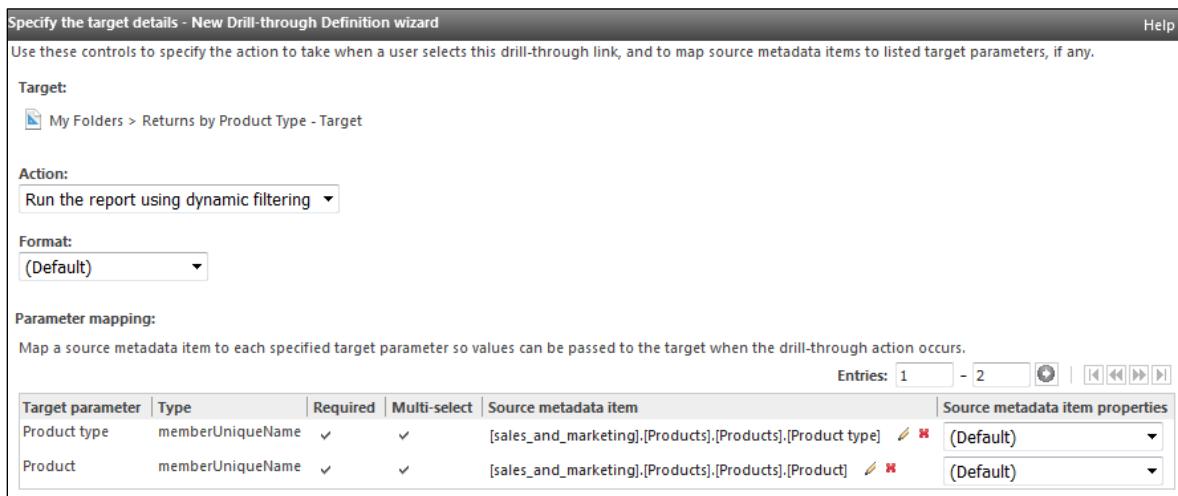
- Save changes to the report.
- Close **IBM Cognos Workspace Advanced**.

### Task 3. Create the drill-through definition.

- In **IBM Cognos Connection** Launch **Drill-through Definitions**.
- Navigate to **Samples\_Drillthrough\Cubes\Sales and Marketing (cube)**.
- Create a drill-through definition named **Returns by Product Type Definition**.
- Set the scope to **Products: Product type**.
- Set the target report to: **Cognos > My Folders > Returns by Product Type - Target**.
- Set the Action to: **Run the report with dynamic filtering**.
- For **Product type** parameter, map metadata to **Products: Product type**.

- For **Product** parameter, map metadata to **Products: Product**

The results appear as follows:



- Click **Finish**.

## Task 4. View the passed source values.

- In **IBM Cognos Connection**, run **Actual vs. Planned Revenue** from **Samples\_Drillthrough\Cubes\Sales and Marketing (cube)\Report Studio Report Samples**.
- In the **pMethod** prompt, choose **Web**.
- In the **Year** prompt, choose **2012**.
- In the **Product** column, right-click **Seeker 50**, point to **Go To**, and then click **Related Links**.

Notice that the **Returns by Product Type Definition** link is available. This is because the source and target reports have a Product type level, the same level to which the scope has been set in your drill through definition.

- View passed source values

The results appear as follows:

Selection context		
Item	Display value	Use value
Product	Seeker 50	[sales_and_marketing].[Products]
Order method type	Web	[sales_and_marketing].[Order method]
Product type	Binoculars	[sales_and_marketing].[Products]
Revenue	1,484,847.00	[sales_and_marketing].[Measures]
Planned revenue	1,563,052.05	[sales_and_marketing].[Measures]
Difference	78,205.05	78205.05
Year	2012	[sales_and_marketing].[Time].[Time]

Notice the item name for the product level is Product not Base product. The target report and the source report need to be conformed, in that the naming convention for all data items needs to be consistent.

## Task 5. Fix and test source report.

- IBM Cognos Connection open the **Actual vs. Planned Revenue** report from **Samples\_Drillthrough > Cubes > Sales and Marketing (cube) > Report Studio Report Samples** in Report Studio.
- Save the report as **Drill-through Source\_Actual vs. Planned Revenue**, in **My Folders**.
- In the report, select the **Product** column header , and then in the **Properties** pane, change the **Name** property to **Base product**.
- Run the report, and then in the **pMethod** prompt, click **Web**, and in the **Year** prompt, click **2012**.
- In the **Base Product** column, right-click **Seeker 50**, point to **Go To**, and then click **Related Links**.
- Click **View passed source values**.

The results appear as follows:

Selection context		
Item	Display value	Use value
Base product	Seeker 50	[sales_and_marketing].[Products].[Prod
Order method type	Web	[sales_and_marketing].[Order method]
Product type	Binoculars	[sales_and_marketing].[Products].[Prod
Revenue	1,484,847.00	[sales_and_marketing].[Measures].[Re]
Planned revenue	1,563,052.05	[sales_and_marketing].[Measures].[Pla
Difference	78,205.05	78205.05
Year	2012	[sales_and_marketing].[Time].[Time].[

- Under Available links: click Returns by Product Type Definition.

The results appear as follows:

<b>Returns by Product Type</b>					
 % Returned: Descending order					
Product type	Base product	Quantity	Return quantity	% Returned	Lost revenue
Binoculars	<a href="#">Seeker 50</a>	159,701	2,282	1.43%	\$211,267.56
<b>Summary</b>		<b>159,701</b>		<b>1.43%</b>	<b>\$211,267.56</b>

Because the item names now match at the Product level, the report filters as expected, and the lost revenue details are displayed for the product you selected.

- Close IBM Cognos Viewer.
- Close Report Studio.
- Close Internet Explorer.





# End-to-End Workshop

IBM Cognos BI 10.2.2

Business Analytics software

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## End-to-End Workshop

To complete the demos in this module, you should be using the B5A55\_1567ABCD image.

Before doing this demo, in the BI environment, in the **Taskbar**, click **Services** to ensure that the following services are started:

- Apache Directory Server - default
- DB2-DB2COPY1 - DB2
- DB2DAS - DB2DAS00
- World Wide Web Publishing Service
- Lotus Domino Server (CProgramFilesx86IBMLotusDominodata)
- IBM Cognos

Because of the large increase in new staff in the past few years, the Sample Outdoors Company has decided to implement a training program and therefore require the Education Department to create, market, and deliver the training material. The Sample Outdoors Company recently purchased the IBM Cognos BI solution; therefore part of the training will include IBM Cognos BI.

There are three teams within the Education Department: Education Development, Education Delivery, and Education Marketing.

To prepare for the training, these teams need access to IBM Cognos BI and three new roles need to be created by the company's directory administrator, Jeff Waters.

Phil Dailey and Tim Meyers need to be a member of the Education Development role, Phil Dailey needs to be a member of the Education Delivery role, and Phil Dailey and Branka Hirsch need to be a member of the Education Marketing role with all permissions. Phil also needs to be a member of the Report Administrator role, since he will be managing the Education-related information in the portal. He will need Read, Write, and Traverse permissions for the Education Delivery role and Education Marketing role.

Members of all three roles will be using Query Studio on a regular basis. Therefore, they require Execute and Traverse permissions for the Query Studio capability.

These three teams require a folder in Public Folders to hold Education-related reports which should be available to them only while they are preparing for the training. Alice will move reports from the Report Studio Report Samples folder to the Education folder in preparation for the training program.

When the information is ready for the training session and the environment has been organized according to the Education Department's needs, Phil will deploy the Education folder.

To accomplish this:

As Jeff Waters, the directory administrator:

- Create three new roles with members: Education Development role (Phil Dailey, Tim Meyers), Education Delivery role (Phil Dailey), Education Marketing role (Phil Dailey, Branka Hirsch). Phil Dailey also needs to be added to the Report Administrator role.
- Allow Execute and Traverse permissions for the Query Studio capability to the Education Development role, the Education Delivery role, and the Education Marketing role.

As Phil Dailey, the report administrator:

- Create an Education Reports folder in Public Folders and give all access permissions to the Education Development role, the Education Delivery role, and the Education Marketing role. Remove all the existing roles except for Report Administrator. Test the security of this folder by logging in as Max Shapiro (user ID: shapirom, password: Education1).
- Move the Report Studio Report Samples folder from the GO Data Warehouse (query) to the Education folder.
- Deploy the Education public folder (to see that the deployment was successful, delete the present Education folder so that when you deploy you will see the imported folder).

For more detailed information outlined as tasks, see the Task Table section.

For the final query results, see the Workshop Results section that follows the Task Table section.

## End-to-End Workshop : Tasks and Results

### Task 1. Create roles and add members.

- In Internet Explorer, navigate to <http://localhost:88/ibmcognos>.
- Log on as **watersj/Education1**.
- In IBM Cognos Administration > Security > Users, Groups, and Roles > Cognos
  - Create the **Education Delivery** role and add **Phil Dailey** and **Tim Meyers** as members.
  - Create the **Education Development** role and add **Phil Dailey** as a member.
  - Create the **Education Marketing** role and add **Phil Dailey** and **Branka Hirsch** as members.

The results appear as follows (note that the entries displayed here not as the default 1-15, but as 1-16, to display the new entries on the same screen capture)

Name
Adaptive Analytics Administrators
Adaptive Analytics Users
All Authenticated Users
Analysis Users
Anonymous
Australia
Authors
Cognos Insight Users
Consumers
Controller Administrators
Controller Users
Data Manager Authors
Directory Administrators
Education Delivery
Education Development
Education Marketing

## Task 2. Add a member to the Report Administrators role.

- In **IBM Cognos Administration > Security > Users, Groups, and Roles > Cognos > Report Administrators > Set properties:**
  - Add **Phil Dailey** as a member.

## Task 3. Set capabilities.

- In **IBM Cognos Administration > Security > Capabilities > Query Studio > Actions > Set properties:**
  - Add **Education Delivery, Education Development, and Education Marketing** to the **Permission** list.
  - Grant **Execute** and **Traverse** permissions for all three roles.

The results appear as follows:

	Name	Permissions
<input type="checkbox"/>	..Authors	
<input type="checkbox"/>	..Directory Administrators	
<input type="checkbox"/>	..Education Delivery	
<input type="checkbox"/>	..Education Development	
<input type="checkbox"/>	..Education Marketing	
<input type="checkbox"/>	..Query Users	
<input type="checkbox"/>	..Report Administrators	

- Log off.

## Task 4. Create a folder.

- Log on as **daileyp/Education1**.
- In **IBM Cognos Connection > Public Folders**, create a folder named **Education Reports**.

## Task 5. Define access to entries.

- In **Education Reports > Set properties > Permissions tab:**
  - **Override the access permissions acquired from the parent entry**, and then **Remove** all entries.

- Add Report Administrators, Education Delivery, Education Development, and Education Marketing roles with all access permissions.

The results appear as follows:

	Name	Permissions
<input checked="" type="checkbox"/>	Education Delivery	
<input checked="" type="checkbox"/>	Education Development	
<input checked="" type="checkbox"/>	Education Marketing	
<input checked="" type="checkbox"/>	Report Administrators	

- Log off.

## Task 6. Test permissions.

- Log on as **shapirom/Education1**.
- In **IBM Cognos Connection > Public Folders**:

The results appear as follows:

Public Folders	
	Name
<input type="checkbox"/>	B5A55
<input type="checkbox"/>	Consumer Share Space
<input type="checkbox"/>	Ottawa
<input type="checkbox"/>	Samples
<input type="checkbox"/>	Samples_Drillthrough
<input type="checkbox"/>	Samples_Dynamic_Cubes
<input type="checkbox"/>	Samples_PowerCube

This user cannot access the Education Reports folder because he is not a member of a role that has been provided access?

- Log off.

## Task 7. Move a folder and examine permissions.

- Log on as **daileyp/Education1**.
- In **IBM Cognos Connection > Public Folders > Samples > Models > GO Data Warehouse (query)**:
  - Copy the **Report Studio Report Samples** folder, and paste it in the **Education Reports** folder.
  - In **IBM Cognos Connection > Education Reports > Report Studio Report Samples > Set properties > Permissions**:

The results appear as follows:

	Name	Permissions
<input checked="" type="checkbox"/>	Education Delivery	
<input checked="" type="checkbox"/>	Education Development	
<input checked="" type="checkbox"/>	Education Marketing	
<input checked="" type="checkbox"/>	Report Administrators	

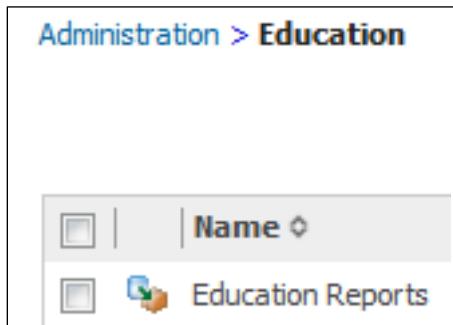
The access permissions for the Report Studio Reports folder are inherited from the Education Reports folder.

## Task 8. Create a deployment folder and export.

- In **IBM Cognos Administration > Configuration > Content Administration**:
  - Create a deployment folder named Education.
  - Create an export named Education Reports inside the Education deployment folder.
  - Select the Education Reports folder as public folders content
  - Include report output versions, run history, and schedules.
  - Include access permissions and set Entry ownership to the user performing the import.
  - Set the encryption password as education.

- Run the export.

The results appear as follow:



## Task 9. Create an import.

- In **IBM Cognos Connection > Public Folders**, delete the **Education Reports** folder.
- In **IBM Cognos Administration > Configuration > Content Administration**
  - Create a new import named Education Reports Import.
  - Use education as the encryption password.
  - Select the Education Reports folder.
  - Leave all other defaults, and then run the import.

- In IBM Cognos Connection > Public Folders:

The results appear as follows:

The screenshot shows the IBM Cognos Connection interface with the title bar "IBM Cognos Connection" and user "Phil Dailey Log Off". The navigation bar includes "Public Folders", "My Folders", "Human Resources Reports", and "Product Reports". The main area is titled "Public Folders" and displays a list of folders. The columns are "Name", "Modified", and "Actions". The data is as follows:

Name	Modified	Actions
B5A55	April 15, 2015 6:01:16 PM	More...
Consumer Share Space	April 17, 2015 9:42:25 AM	More...
Education Reports	April 17, 2015 12:35:03 PM	More...
Ottawa	April 16, 2015 11:07:20 AM	More...
Samples	April 17, 2013 9:54:00 AM	More...
Samples_Drillthrough	April 9, 2013 3:21:19 PM	More...
Samples_Dynamic_Cubes	March 26, 2013 10:31:05 AM	More...
Samples_PowerCube	May 8, 2013 11:08:32 AM	More...

- Log off.
- Close Internet Explorer.

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